

Gauging the Japanese Language Learners' Understanding of the Concept of *Uchisoto* Via a Web-Based System

Ely Triasih Rahayu^{1,*}, Memet Sudaryanto², Muhammad Nur Yasir Utomo³, Hartati¹, Safrina Arifiani¹, Rizki Utami⁴
& Fauzan Fadlullah⁵

¹Department of Japanese Literature, Faculty of Humanities, Universitas Jenderal Soedirman, Purwokerto 53122, Indonesia

²Department of Indonesian Literature Education, Faculty of Humanities, Universitas Jenderal Soedirman, Purwokerto 53122, Indonesia

³Department of Computer in Education, Politeknik Negeri Ujung Pandang, Makassar 90245, Indonesia

⁴Department of Mandarin Language, Faculty of Humanities, Universitas Jenderal Soedirman, Purwokerto 53122, Indonesia

⁵Department of Digital Business, Faculty of Economics and Business, Universitas Negeri Jakarta, Jakarta 13220, Indonesia

*Correspondence: Department of Japanese Literature, Faculty of Humanities, Universitas Jenderal Soedirman, Purwokerto 53122, Indonesia. E-mail: elyrahayu.unsoed@gmail.com

Received: May 23, 2026

Accepted: June 12, 2026

Online Published: August 18, 2026

doi:10.5430/jct.v15n3p250

URL: <https://doi.org/10.5430/jct.v15n3p250>

Abstract

This article aims to measure the understanding of Japanese foreign language (JFL) students in Indonesia in applying the concepts of *uchi* (inside) and *soto* (outside). The *uchisoto* concept is an asymmetrical concept regarding the honorific theory where a staff member may demean a superior or person in a position above him because of the presence of a third party. This concept differs from the culture in Indonesia, where staff or subordinates still use honorifics towards superiors, even in the presence of a third party. The research respondents were JFL students at Jenderal Soedirman University. Respondents were asked to fill out a questionnaire on the *uchisoto.id* website. The web-based measurement of Japanese language learners' understanding of the concept of *uchisoto* was conducted using an Entity Relational Diagram (ERD) design. ERD design is very representative of relational database design. The researcher used a sociolinguistic approach to teach the material using *uchisoto*. The test results show that the participants still had difficulty implementing *uchisoto* due to different cultural backgrounds. It is proved by their low scores on the use of honorifics/keigo words that change lexically. Low scores were also found in students' ability to identify humble language directed at their superiors when communicating with third parties who were positioned as *Soto* (outside) parties. The results of the *uchisoto.id* web survey show that the cultural background of the *uchisoto* concept, which is different from Indonesian culture, was the main factor hindering JFL in understanding and implementing the concept of *uchisoto*. The sociolinguistic approach helps them adapt to the use of the *uchisoto* concept based on social factors in the communication process.

Keywords: Japanese language education, *uchisoto*, web-based system, ERD design

1. Introduction

Uchisoto is a unique honorific concept in Japanese language system. It is a kind of polite or humble expression vital for Japanese social life and language (Bachnik, 1994). Associated with the use of honorific language (Kang, 2021), *uchisoto* can be demonstrated through social behavior (Ashby, 2013; Meagher, 2017). It reflects the use of language and culture as social constructs (Meagher, 2017). In terms of definition, it has two meanings: in-group and out-group (Meagher, 2017) or insider and outsider (Honda et al., 2016). Meanwhile, the meaning of *uchi* as inside and *soto* as outside (Bachnik, 1994) will be used in this study. Misunderstandings of an '*uchisoto*' societal model can hinder socialization for non-native speakers. Especially for Indonesians who learn Japanese, the concept of *uchisoto* usually causes confusion and misunderstandings in communication.

Interpreting *uchisoto* in Japanese society is not only associated with spoken language. *Uchisoto* is also interpreted as social behaviours. Japanese nursing students show that nurses who position themselves as the family of the clinic where they work, Japanese nursing students felt like insiders and had welcoming, inclusive and positive clinical placement experiences where they felt accepted, were more determined to succeed, and more confident to learn and grow (Honda et al. 2016). In *uchisoto* concept explains how Japanese social behaviours constructs private and public spheres (*uchi* and *soto*) through material practices in homes. It examines how residents use personal belongings, signs, and self-presentation to assert shared space and their understanding of public and private in traditional Japanese homes (Meagher, 2017). *Uchisoto* study is one of the sub-studies of Japanese honorifics. The comprehension and proper use of the honorific forms included in the Japanese honorific system, known as *keigo*, are influenced by how the system's structure is perceived and understood. Not immediately apparent principles are simpler to understand when they are categorized functionally.

The two main parts of the Japanese honorific system are referent honorifics (*sozai-keigo*) and addressee honorifics (*taisha-keigo*) (Okamoto, 2014). The *sozai-keigo* categorization is based on The Ministry of Education oversees the conventional three-category categorization of *sonkeigo*, *kenjōgo*, and *teineigo*. The Japanese speaking community recognizes the existence of *keigo* 'respectful language'. *Keigo* is a language variation whose differences are determined by the position of the speaker (O1) regarding his relationship with the person who is the speech partner (O2) and the person who is the subject of the speech (O3). These relationships are factors outside of language (non-linguistic factors) that can influence the use of the chosen language (Rahayu and Hartati, 2020).

This study examines subordinates' use of plain forms in superior-subordinate interactions in a Japanese workplace. It reveals that subordinates adopt plain forms strategically, even in hierarchical contexts. The data shows that subordinates' use of plain forms indexes the speaker's inward thoughts and highlights of information (Junko Saito, 2010). Japanese society's *uchisoto* membership is determined by factors like familial relationships, social networks, marriage, and age. Language operates within the insider-outsider relationship dichotomy, with barriers visible through speech levels and styles. *Uchi soto* is also applied in business emails. Email addressed to *uchi* within the company whether it was to a superior or a subordinate, the opening will use *otsukaresama desu*. However the above email for *soto* writes with the opening *itsumo osewaninatte orimasu* (Yasunori and Yuniarsih, 2019). The study investigates Japanese students' understanding of the '*uchisoto*' concept, which is used for translating '*yari-morai*' expressions. Results show students' understanding is not significantly related to their competence in translating *yari-morai* verbs and vice versa (Wiyatasari, 2020).

Every language has a polite manner of expression to the speaker. Their culture influences both the Indonesian and Japanese expressions of this polite form. Politeness in Japanese is influenced in part by the *uchisoto* culture. The form of respect used by paying attention to the interlocutor is an insider (*Uchi*) or an outsider (*Soto*), also paying attention to whether it is higher or lower, and age or position with the interlocutor. That forms of politeness in Japanese have interesting linguistic forms and processes to be studied in comparison with the expression in Indonesian. This paper discusses cultural understanding of the politeness in both languages expressed through various language markers, both grammatically and/or lexically, and morphemic processes. Student, struggling with understanding Japanese culture and sociolinguistic implications due to a lack of knowledge about *uchisoto* relationships, leading to disappointing learning experiences and a desire to investigate these relationships and their function. This is the background to the research question, namely;

1. To what extent can Indonesian students learning Japanese understand the concept of *uchisoto*?
2. How do Indonesian students learning Japanese apply the concept of *uchisoto* in social interactions?

This research develops solution to the making of a web based *Uchisoto* understanding measurementsystem to measure Japanese language learners' perception, reasoning and mastery of *uchisoto* from sociolinguistic context. The system is designed containing test items to observe Japanese language learners' perspective in understanding the concept of *uchisoto* in Japanese language. The system developed in this research is expected to be a practical medium to measure the level of understanding and mastery of the concept of *uchisoto*. The assessment system will be capable of describing language learners' initial knowledge for self-preparation in learning Japanese language and culture. Furthermore, this research provided references for Japanese language teachers, especially as *uchisoto* learning materials.

2. Literature Review

2.1 The Concept of Honorific in Japanese language

Japanese honorifics are described as "the extremely involved system for categories of speech levels" and "elaborate

and special types of discourse" (Miller&Roy Andrew, 1967). According to Kokugo Kenkyūjo (2008), they are divided into five categories since Keigo no Shishin's "Guide to Honorifics" (2007): "exalting words" (sonkeigo), "humbling words I" (kenjōgo I), "humbling words II" (kenjōgo II, also called "hyper polite word" teachōgo), "polite words" (teeneego), and "beautifying words" (bikago). The terms "humbling" is used to refer to both humbling words I and II in the arguments that follow.

There is a handful of verbs that appear in suppletive forms to express honorific meanings; e.g. suru!nasaru 'do[EXLT], itasu 'do[HUM]'; iu→ossharu 'say[EXLT], mōsu 'say[HUM].' Other verbs express exalting and humbling meanings in the constructions o-verb ni naru and o-verb suru, respectively; e.g. yobu→o-yobi ni naru 'invite[EXLT], o-yobi suru 'invite[HUM].' Additionally, the morpheme (r)are can be attached to almost any verb to express exhalative meaning; e.g. suru→sareru'do[EXLT], iu→iw-areru 'say[EXLT], yobu→yob-areru 'invite[EXLT] (Hudson, 2011). Basically, sonkeigo is a language used to respect other people (partners or people who are the subject of conversation) (Suzuki, 1998; Kabaya 2010; Rahayu, 2020).

Based on the definition of *sonkeigo* 'language for elevating other people' above, it is clear that the most important thing in expressing respectful language is the speaker's awareness as O1 of his position towards the speech partner/O2 or it could also be towards the person who is the subject of conversation/O3.

The lexical marker sonkeigo has a limited number (Kikuchi, 1996:2; Suzuki, 1998:28; Kaneko, 2010:168; Kabaya, 2010:18-19;). The lexical markers for *sonkeigo* according to Kikuchi in his book *Keigonyuumon* (1996:23) are presented in the Table 1 below.

Table 1. Lexical Markers of *Sonkeigo*

<i>Jishokei</i>	<i>Sonkeigo</i>	Translation
<i>suru</i>	<i>asaru</i>	do
<i>kureru</i>	<i>kudasaru</i>	receive
<i>iu</i>	<i>ossharu</i>	say
<i>kuru • iku • iru</i>	<i>irassharu</i>	come • go • present
<i>miru</i>	<i>goran ni naru</i>	watch
<i>taberu • nomu</i>	<i>meshiagaru</i>	eat • drink
<i>shitteiru</i>	<i>gozonji</i>	know

Kenjōgo is an attitude of condescension to the subject (Kikuchi, 1996). The purpose of someone expressing language in the *kenjōgo* variety 'language for being humble' is to respect the speaker or person who is the subject of conversation. The difference between *sonkeigo* and *kenjōgo* is that the language used in *sonkeigo* is language to elevate other people, while the language used in *kenjōgo* is humble language. The purpose of *sonkeigo* and *kenjōgo* is the same, namely to respect the speaker or person who is the subject of conversation.

In Bunkachou (1985:27) it is written that *kenjōgo* is respectful language used to respect a second person or the person who is the subject of discussion by demeaning the action/situation. The sentence *haha ga sensei ni oaisuru* 'mother meets teacher/lecturer' is an expression that demeans the actions of *haha* 'mother' which is the subject of discussion (Sudjianto, 1996:130) to respect *sensei* 'teacher/lecturer'. Kaneko (2010) provides several examples of *kenjōgo* vocabulary in table and terms this *kenjōgo* "*watashi ga*" 'me'. The term "*watashi ga*" here is to indicate that *kenjōgo* is addressed to oneself or can also express language for one's own family/party (which will be explained further in the subchapter "*uchisoto*"). One of the characteristics of *kenjōgo* expressions is the choice of vocabulary as in the example of the speech below (Makino et.all 2002).

- (1) きのう 結婚式 の 写真をはいけんしました。

Kinou kekkonshiki no shashin o haikenshimashita.

'Yesterday I saw photos of the wedding celebration.'

- (2) 私はアメリカ からまいりました。

Watakushi wa amerika kara mairimashita.

'I come from America.'

The vocabulary words *haikenshimashita* 'see' and *mairimashita* 'come' are lexical (verb) markers of *kenjōgo*. This verb is used to demean the speaker (the speaker's actions) in order to respect the speaker. The lexical *kenjōgo* is very limited to the following verbs.

Table 2. *Kenjōgo* Lexical Markers

<i>Jishokei</i>	<i>Kenjōgo</i>	Translation
<i>iku</i>	<i>mairimasu</i>	go
<i>kuru</i>	<i>orimasu</i>	come
<i>iru</i>		present
<i>iu</i>	<i>moushimasu</i>	say
	(<i>hito ni</i>) <i>moushiagemasu</i>	
<i>miru</i>	<i>haikenshimasu</i>	watch
<i>nomu taberu</i>	<i>itadakimasu</i>	drink
<i>shitteiru</i>	(<i>mono o zanjite</i> <i>orimasu/ shitteorimasu</i> (<i>hito o</i>) <i>zonjiageteorimasu</i>	know
<i>omou</i>	<i>zonjimasu</i>	think
<i>suru</i>	<i>itashimasu</i>	do
<i>ageru</i>	<i>sashiagemasu</i>	give
<i>morau</i>	<i>itadakimasu</i>	receive
<i>au</i>	<i>o me ni kakarimasu</i>	meet
<i>kiku</i>	<i>ukagaimasu</i>	listen

The form of *teineigo* 'polite language' or in Japanese is explained as a sentence that as a whole shows polite language (Kaneko, 2006:23). This form is characterized by *masu* and *desu*. David (2009) calls the form of *teineigo* 'polite language' formal language. *Masu* is an ending for verbs and functions as a formal expression marker. Changes in *masu* also vary, for example according to the past tense marker it becomes *mashita*. *Masu* can also change into *masen* (negative *teineigo* marker in the future) and *masen deshita* (negative *teineigo* marker in the past tense).

2.2 The Concept of Uchisoto

Among the language issues, honorific language delivered by a speaker is one of the language studies that analyze language in association with the speaking community's norms. Studies on how language is used in a speaking community are associated with the community's norms, cultures, and habits have been commonly performed from a the sociolinguistic perspective (Wardhaugh, 1986; Holmes 1992, Kabaya, 2010; Rahayu, 2013). The speaker expresses his/her language by considering, construing a situation and encoding it linguistically as a way of self-manifestation in front of the public. The two important points for the speaker are the concepts of public and private self (Hasegawa and Hirose, 2005; Makiko, 2006). In the domain of speaking about oneself, languages use a myriad of expressions that cut across grammatical and semantic categories, as well as a wide variety of constructions (Huang; 2018).

A general concept in speech level associated with the social factor in office domain is staffs or subordinates in using honorific language to honor their superior, as in the illustration below. The speakers are the 1st person and the person addressed is the 2nd person (O'Neill, 2008:11-15).

The diagram shows that hearer's position is higher than that of speaker, such as staff with his/her leader, the staff should use honorific language for the leader.

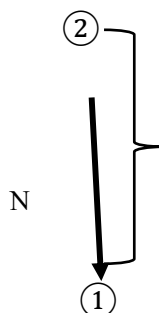


Figure 1. The Concept of Japanese Honorific Language

Uniquely, in the concept of Japanese language speech level, there is a reverse phenomenon from the concept above, that the staff or subordinate uses humble language against the superior. This linguistic phenomenon is called the concept of *uchisoto*. *Uchisoto* ‘internal and external groups’ is the unique characteristic in Japanese language speech level. *Uchi* means internal member, while *soto* means external member. Internal member can be family member or corporate member (internal environment), and external member can be hearer’s family or company (hearer’s environment) (Andriyani et al., 2018). It is unique since in this system there is the inverse rule in language choice. A subordinate should use *sonkeigo* to honor his/her subordinate, but a subordinate in the *uchisoto* system will speak otherwise, using the *kenjōgo* form to humble his/her superior’s act/condition. This is performed to honor hearer from other companies.

Likewise, in terms of appellation, subordinate should use office appellation as a form of honor to superior. However, in the conversation performed with customer, subordinate only calls superior without any *~san* or *~sama* or office appellation (Rahayu, 2014).

Learning second language (L2) should understand both cultural and linguistic competencies. Learners not only understand the English structures but also the cultural elements for communication (Culhane, 2004:50-61). For Japanese language learners in Indonesia, foreign language mastery is complex since it is not only about mastery of vocabularies, but also about language or dialect usage patterns in certain culture. Choice in certain dialect usage by speaker can affect changes in the meaning of words spoken. In sociology, this is of the domain of sociolinguistics. The emergent field of sociolinguistic cognition has brought significant insights into the cognitive representation of sociolinguistic variation and its role during the perception of speech (Campbell-Kibler, 2010). Sociolinguistics is a study on language social symptoms referring to creative process shown by a community or between communities contributing to forming a communication pattern. Therefore, the sociolinguistic forms of foreign languages differ, requiring foreign language learners’ special attention, including Japanese language learners.

As arbitrary sound symbol, language has social classes that make language considered communication adaptation media. Language can build constructive meaning from the perspective of speaker or hearer; thus, the function of a language community can show unique, contextual and meaningful language symbol. Therefore, language, for a certain community, is capable of showing identity and representing certain social function since language is a thinking instrument for social interaction and building role in the community.

Context in a communication depends on how a community builds stimulus and differentiates responses used to differentiate the roles, functions and forms. Language as the identity of certain community must meet linguistic elements that specifically form a pattern in a communication. In a community, every member in language community can receive positive and negative values shown in a communication process (Andriyani et al., 2020). In addition, the prestige shown in a language community also refers to social context, social role, and social function built to construct community’s understanding. Just like Javanese language in a Javanese speaking community, the same Javanese language has different social class. In the context, language has become the marker of the degree of prestige of a person’s group as indicated by word choice, use of intonation, and sense of belonging that is eventually shown through the attitude of using and sense of belonging to the language.

2.3 *Uchisoto* in Japanese Language

Sociolinguistics is considered as one effective approach for Japanese language learners, especially in understanding the social factors underlying the use of *uchisoto*. In this case, the Japanese language learners were motivated to understand a foreign language not only as a linguistic system but also as a means of communication. In addition, the Japanese language teachers should be able to select languages (*kenjōgo* ‘humble language’ or *sonkeigo* ‘respectful language’ in

accordance with the speakers' positions to other parties which are in-group (*uchi*) and those which are out-group (*soto*) based on the language formation patterns (language as a system) and linguistic context (social situations of language use).

One of the sociolinguistic phenomena of Japanese language is *uchisoto*, that is the culture of communication pattern of staff/subordinate using humble *kenjōgo*/humble language against their superior. *Uchisoto* 'in-group and out-group' the unique typical characteristic in Japanese language speech level. *Uchi* means internal member, while *soto* means external member. Internal member can be family member or corporate member (internal environment) and other party can be hearer's family or company (hearer's environment) (Bachnik, 1994a).

The *uchisoto* phenomenon practically, commonly causes confusion for learners since *uchisoto* contradicts the other sociolinguistic phenomena, namely *sonkeigo* (honoring others) or *kenjōgo* (humbling oneself). For example, a subordinate should use *sonkeigo* to honor his/her superior, but a subordinate in *uchisoto* system will speak otherwise, using *kenjōgo* to humble his/her superior's act/condition (Rahayu, 2014). Japanese language learners certainly find it difficult to differentiate and use *Uchisoto*, *Sonkeigo* and *Kenjōgo* while it is very important for learners to understand the concept. To solve the problem, Japanese language learners need to be equipped with instrument to measure their understanding related to the *uchisoto* phenomenon.

3. Methods

This research started with observation of the social facts to view the tendencies and connected them with other social facts; thus, the tendencies of a social fact could be identified. The social facts later became data that were presented with support of situational factors, thus Japanese language learners could understand the context of speech. Japanese language learners' understanding was measured via website *uchisoto.id*, generating certain numbers to be arranged and to facilitate reading, and facilitate researcher in measuring the understanding (Sunyoto, 2016).

There were three main stages in this research, namely determining test instruments, making the system and evaluation/validation as presented in Figure 2. The expected result was a system capable of measuring Japanese language learners' level of understanding of the concept of *Uchisoto*.

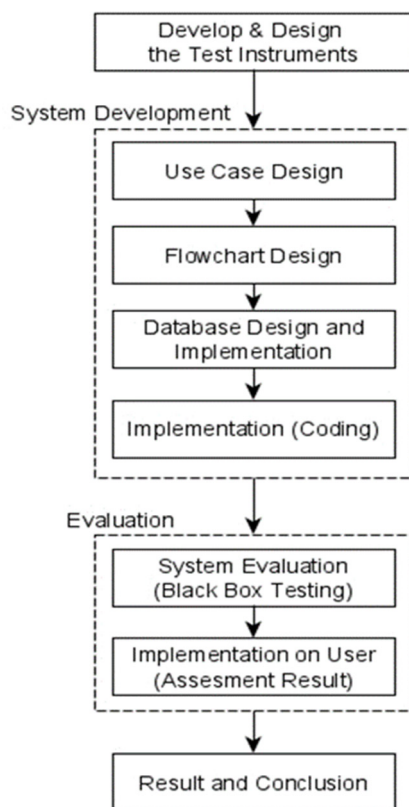


Figure 2. Research Method

3.1 Determining Test Instruments

The test instruments used included, (1) self-diagnosis: Indonesian speaker who learned Japanese language could understand the picture of social environment and language position from sociolinguistic perspective, (2) new additional information: Indonesian speaker could be educated and anticipate culture-gap which might cause language misunderstanding. The test-based assessment was developed aiming at (1) measuring Indonesian speaker's understanding, reasoning, and perception of Japanese language and culture related to *uchisoto*, (2) describing Indonesian speakers' capability related to the existence of *uchisoto* and picture of its implementation in social interaction in Japan, and (3) identifying language aspects serving as complexity constraints for learning Japanese language from *uchisoto* perspective as social symptom.

Diagnosis test was used to examine, identify and find the problems or mistakes faced by test participants. Therefore, *uchisoto.id* was used to find and follow up language users' understanding effort regarding *uchisoto*. Understanding of *uchisoto* was specifically measured using test capable of describing test participants' competence, strengths and weaknesses, thus learners could find out their position in mastering the concept of linguistic rules in Japanese language.

3.2 Designing and Making the System

Realization of the research focus was that system assessment was expressed into some system development measures, namely use case design, flowchart design, database design and implementation/coding. The detail of each design is explained as follows:

3.3 Use Case Design

System was designed in with two classes of users, namely admin and test participant. Admin's task was regarding question management, user management and observing test result. Test participant, meanwhile, could choose test, fill in biodata and do test. Based on the tasks and roles, the Use Case design was as presented in Figure 3.

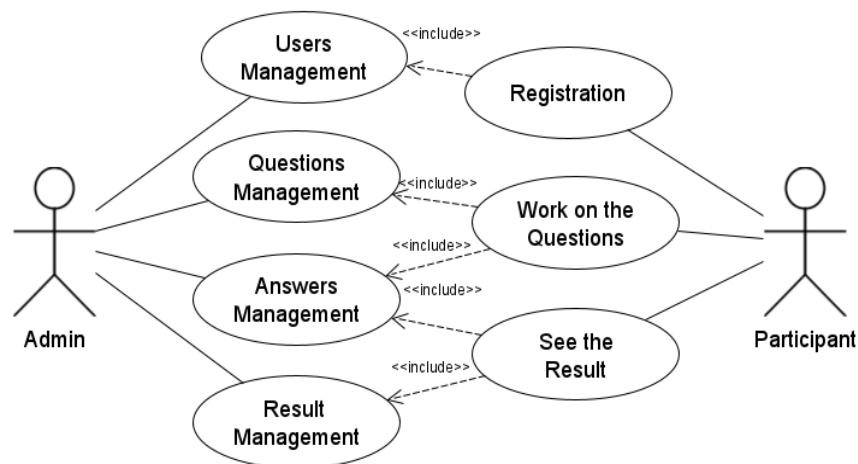


Figure 3. Use Case System Design

Use case system design facilitated respondents, Japanese language learners, in registering or logging in to *uchisoto.id* web system. After successful login, respondent would answer based on the question referring to the speech delivered by speaker in consideration of the position of speaker's superior/hearer. Based on the concept of *uchi soto*, speaker/staff's superior as *uchi*/in group and customer from other company as *soto*/out group (person from outside the staff's company). Question was asked with analysis on the form of speech, whether *sonkeigo* or *kenjōgo*, and social factor analysis as the basis to determine *uchi* and *soto*.

3.4 Flowchart Design

Flowchart design illustrated how system was used by test participants. System was used from choosing test/assessment, filling in biodata, answering question and seeing the result. The flowchart of the course of assessment system in the research is as presented in Figure 4.

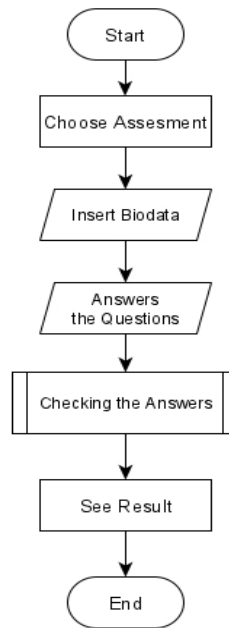


Figure 4. Assessment System Flowchart

Figure 4 shows the steps when a test participant used the system. Figure 4 also shows that the system immediately checked the answers, thus participant can immediately see the test result. The process of checking the answer and research was performed through answer weighing method. Participant's final score was obtained using equation 1.

$$Final\ Score = \frac{\sum_{i=0}^n ws}{n} \quad (1)$$

Equation 1 above shows how to calculate participants test score, where ws the weight of each answer participant is choosing and n is total questions. Calculation was performed by summing up all scores of participant's answers, and the score was divided by the number of questions. This would eventually result in the participant's understanding score.

3.5 Database Design

Based on the previously defined Use Case and Flowchart designs, database design could start to be designed as needed. The database design used was Entity Relational Figure (ERD) design. ERD design was used sing it was very representative for relational database design.

The Entity -Relationship Figure has been widely used in structured analysis and conceptual modelling. The ER approach is easy to understand, powerful to model real -world problems and readily translated into a database schema. The ERD views that the real world consists of a collection of business entities, the relationships between them and the attribute is used to describe them. Other ER modelling semantics used by most methodologies include cardinality, participation and generalization (Yeol Song *et al*, 1995). The system database ERD design is presented in Figure 5.

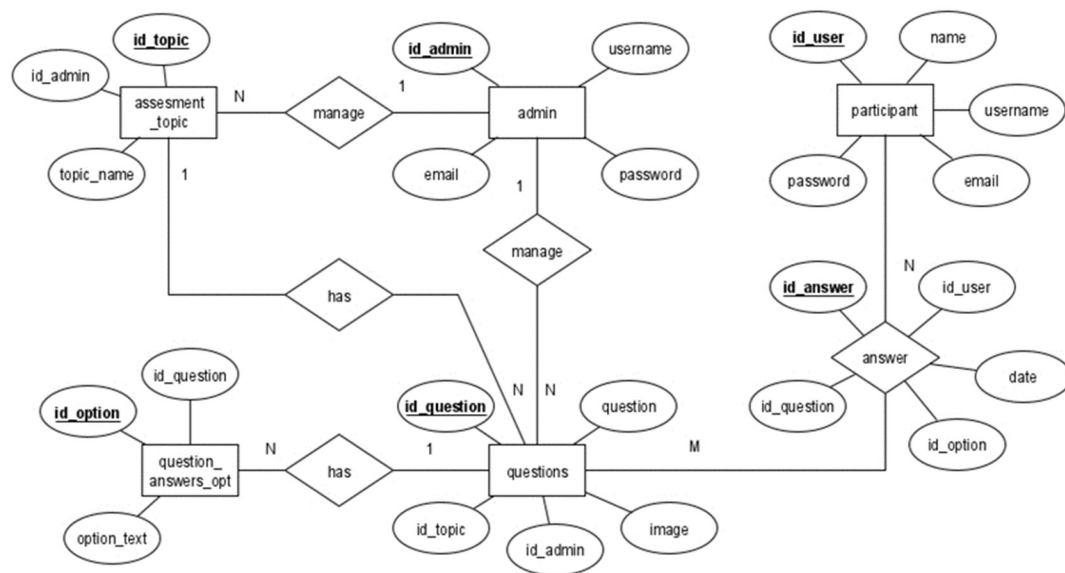


Figure 5. System Database ERD Design

3.6 Implementation/Coding

The implementation of previously made design was expressed in the form of website. The website-based system was chosen because of its flexibility of access that could reach participant of various types of devices, such as laptop and mobile phone. For realization, there were some technologies used, namely (a) PHP Language/Hypertext Preprocessor as the main programming language, (b) Database MySQL as data storage, (c) Domain uchisoto.id. and (d) Hosting with unlimited bandwidth and disk capacity. With the technologies above, the system assessment was built for participants to access publicly from everywhere via the web domain uchisoto.id.

3.7 Measurement

There were two stages of evaluation in this research, namely system evaluation before public use and evaluation of system use by participant. The evaluation method used for each evaluation stage is as follows:

3.8 System Measurement

System was measured using Black Box Testing method. Black Box Testing is a method to test the feasibility of a system focusing on system's functionality performance. The test process was carried out by using a set of scenarios of system use and defining expected output. For each scenario that was successfully performed during test, the system feasibility score would be better and better. The equation to calculate system feasibility score with Black Box Testing method is shown in Equation 2.

$$\text{Score (\%)} = \frac{\text{Number of Correct Tests}}{\text{Total Number of Tests}} \times 100\% \quad (2)$$

Equation one shows how to calculate the system feasibility. Based on Equation 2 above, the performance and feasibility scores of the system proposed can be found out.

3.9 User Test Result Measurement

Data validation was carried out to test the validity of data, namely (1) usability-functionality of assessment application, (2) test items validation, and (3) achievability of assessment indicators. In addition, descriptors of capability and understanding of uchisoto.id were analyzed to examine the achievability of indicators through descriptive analysis with interactive analysis technique. Test participant's capability was assessed based on difficulty and characteristics of test items in explaining

the description of Japanese language learners' capability in Indonesia. Participant's capability was described based on

the construction of test made and validated by expert.

4. Results And Discussion

The results of this research are divided into two, namely result of system feasibility evaluation and result of evaluation of system use by participant/user. Each part is explained below:

4.1 System Feasibility Evaluation Result

The result of system development is divided into two portals, namely admin portal and participant portal with system homepage display as presented in Figure 6.



Figure 6. Display of Homepage of uchisoto.id

Figure 6 shows the homepage of the developed web system. There are some menus to choose, including Home, About and Exam to start the test. The display of participant portal when starting doing the test is shown in Figure 7

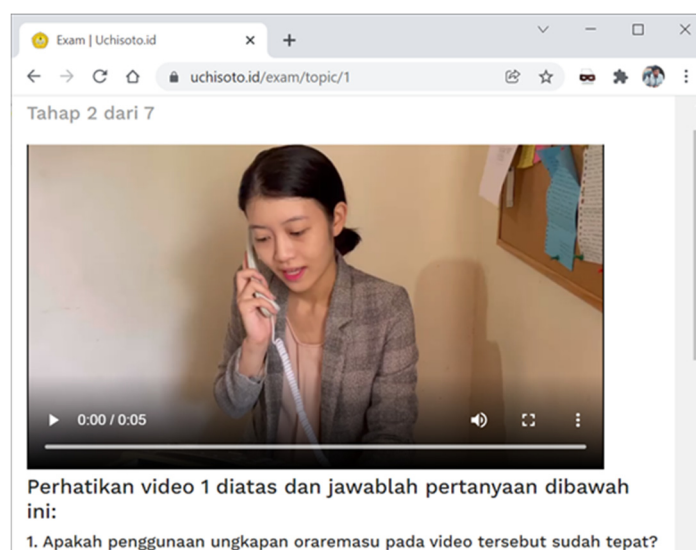


Figure 7. The Display When a Participant Has Started Doing the Test

When the test ends, participant will send the answers. The answers sent can be evaluated by admin. The display of adminis shown in Figure 8.

The screenshot shows the Admin Portal interface. On the left is a sidebar with navigation links: App Menu, Home, Exam Management, Exam Questions, Exam Results, User Management, and Admin User. The main content area is titled 'Dashboard Survey Result'. It features a 'Tip!' box with a message about contacting the administrator. Below this is a section for 'Survey Result: admin' with a 'Print PDF' button. A table displays survey results for four users, with columns for ID, Name, No Telepon, and six stages of scores (Nilai Tahap 1 to 6), along with Status Penilaian, Detail, and Delete actions.

ID	Nama	No Telepon	Nilai Tahap 1	Nilai Tahap 2	Nilai Tahap 3	Nilai Tahap 4	Nilai Tahap 5	Nilai Tahap 6	Status Penilaian	Detail	Delete
64	Anindya Maghriza Ayuningtyas	08960807344	86.666666666667	83.333333333333	83.333333333333	100	60	70	Penilaian Selesai		
65	Evi Kusumastuti	085227448034	50	53.333333333333	50	0	85	80	Penilaian Selesai		
66	Tasya Fienta Amalia	081328152422	50	56.666666666667	60	100	0	0	Perlu Penilaian		
67	NI NYOMAN ASTIYUDIASARI, SE	081226613452	33.333333333333	66.666666666667	33.333333333333	0	0	0	Perlu Penilaian		

Figure 8. The Display of Admin Portal

There are some menus available, including question management, answer management and user management.

4.2 System Feasibility Test Result

A feasibility test must be performed to ensure that the system works well before participant uses it using the Black Box Testing method. Before test, a test scenario is made first for two portals, admin and participant portals. The test results are shown in Table 3 for admin portal and Table 4 for participant portal.

Table 3. The Result of Black Box Test on Admin Portal

No	Scenario	Expected Result	Test Result
1	Admin logs in using available account	Successfully logging in and homepage is displayed	Valid
2	Admin makes test topic	Successfully adding test topic	Valid
3	Admin adds questions and choices of answer	Successfully adding questions and choices of answer	Valid
4	Admin can see participant's test result	Participant's test result and score can be viewed	Valid
5	Admin downloads survey result in PDF format	Test result in PDF file	Valid
6	Admin can add and remove user	User can be added and removed	Valid

Table 3 shows the evaluation from admin portal. It is evident that admin portal works well in completing six prepared test scenarios. The test for participant portal is shown in Table 4.

Table 4. The Test for Participant Portal

No	Scenario	Expected Result	Test Result
1	Participant access the system	Homepage of system uchisoto.id is displayed	Valid
2	Participant chooses test topic	Test topics are displayed and available to choose	Valid
3	Participant fills in biodata before starting test	Successfully filling in the data and moving to test page	Valid
4	Participant answers test questions	Questions and choices of answer can be filled in by participant	Valid
5	Test is complete, submit the answer	Answers are sent and homepage is displayed, thank you	Valid

Table 4 above shows five scenarios in the participant portal feasibility test. Based on the test, the system successfully meets all of the existing scenarios. Based on the test performed, there are totally 11 scenarios (6 admin portals and 5 user portals) successfully, well completed by the system proposed in this research. Therefore, the system feasibility score can be calculated referring to Equation, with the results as follows:

$$\begin{aligned}
 \text{Score (\%)} &= \frac{11}{11} \times 100\% \\
 &= 1 \times 100\% \\
 &= 100\%
 \end{aligned}
 \tag{3}$$

The result of Black Box test is score 100%, thus it is feasible to use publicly by test participants.

4.3 Validation and Evaluation of the Use of System by User

As a study of *uchisoto*, speech level in Japanese language needs to be mastered by Indonesians, especially those who are learning Japanese language. *Uchisoto* is important for social mastery and adaptation that it is uniquely opposite of the honorific language theory. Perception, reasoning and mastery of *uchisoto* were measured to analyze Indonesians' preparedness and curiosity to get to know and learn Japanese culture from sociolinguistic context. This research aimed to develop web-based assessment in the form of *uchisoto.id* that contained test items to see the Indonesians' perspective in understanding *uchisoto* as Japanese language speech level. The *uchisoto.id* developed into a practice and significant measurement medium since it contained the construction of perception and reasoning for immediate measurement of the level *uchisoto* concept level. As a web-based assessment, it has some main functions, including, (1) self-diagnosis: Indonesian speakers who learn Japanese language can understanding the picture of social environment and language position from sociolinguistic perspective, (2) new additional information: Indonesian speakers can be educated and anticipate culture-gap which may cause language misunderstanding.

This test based assessment is developed aiming to (1) measure Indonesian speakers' understanding, reasoning and perception of Japanese language and culture related to *uchisoto*, (2) describe Indonesian speakers' capability related to the existence of *uchisoto* an dpicture of its implementation in social interaction in Japan, and (3) identify non-linguistic aspects serving as complexity constraints in learning Japanese language from *uchisoto* perspective as social symptom in different scope of culture and habit. Reasoning test covers identification of sentence in *sonkeigo* (respectful language) and *kenjōgo* (humble language) patterns in the application of *uchisoto*, understanding of the concept of *uchisoto* shown in subordinate's speech against superior when receiving call from customer from *soto*, and understanding of social factor in the use of the concept of *uchisoto* as social symptom associated with the existence of Indonesians' culture and habit.

The developed test needs to be validated to measure the capability in accordance with the test dimension. This research developed five dimensions to explain and diagnose understanding and reasoning ability related to the concept of *uchisoto* in Japanese culture and language for Indonesian learners.

Table 5. The Capability in Accordance with the Test Dimension

Test Dimension	R1	R2	R3	R4	R Average
Dimensi_01	0.80	0.65	0.88	0.88	0.80
Dimensi_02	0.82	0.94	0.82	0.88	0.87
Dimensi_03	0.84	0.88	0.76	0.94	0.86
Dimensi_04	0.88	0.82	0.71	0.82	0.81
Dimensi_05	0.76	0.74	0.88	0.82	0.80

Rater is expert that give assessment on the instrument items developed to observe the extent the items reflect the test and theory construction. Test items that reflect a test dimension are collected in the same dimension to show the same analysis factor, thus items with weak descriptive ability can be revised before input into the test system *uchisoto.id*. Rater assessment shows that every dimension is measured based on the developed test instrument.

Dimension in the test refers to item's capacity in describing Japanese language learners' understanding in Indonesia of the concept of *uchisoto*. The test developed in *uchisoto.id* is translated into the dimensions (1) identifying the concept of *uchisoto* in daily communication in working world, (2) comparing and associating the concept of *uchisoto* in

communicating with leader and people of external party (*soto*), (3) applying the concept of *uchisoto* in communication with others in Indonesia, (4) projecting communication by applying *uchisoto* as the form of culture in Japan, and (5) building self-perception in using *uchisoto* as a phenomenon of daily communication. Capability is measured to examine the achievability of reasoning of the concept of *uchisoto* for Japanese language learners in Indonesia. The measurement process shows general achievability of capability, as presented in the map of capability below.

Achievability of Reasoning Average Assessment

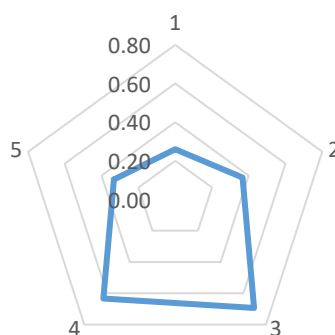


Figure 9. Achievability of Reasoning Average Assessment

Based on the map of capability above, the strongest measured dimensions are dimensions 3 and 4, while dimensions 1, 2, and 5 still need improvement. In general, test participants' competence in identifying the concept of *uchisoto* is the process of accepting the speech act concept that is still lacking compared to any other competences. Identification process that is measured in understanding the concept of *uchisoto* consists of searching, finding, collecting, studying, registering, recording data and information of speech act phenomena in Japanese language via *uchisoto.id*. Test participants' capability in finding the characteristics of the use of *uchisoto* in working world conversation still needs improvement, compared to the capability of building self-perception to follow communication pattern with speech act in working world.

The test participants, namely Japanese language learner in Indonesia, have optimally applied the concept of *uchisoto* in communication with others in Indonesia. The capability of choosing and arranging sentence to honor others and humbling internal people is included in projecting communication by applying *uchisoto* as the form of culture in Japan. Test participant's capability of processing the constructed concept of *uchisoto* shows the internalization process of understanding and reasoning related to speech act of Japanese culture and language. In the measurement, Japanese language learners have indirectly collected relevant information in the form of observation result of social construction and language characteristics in speech presented through the audiovisual stimuli presented. Every stimulus received by test participant will be reflected in question items of which test indicators achievability is assessed. Test participant's achievement in understanding the concept of *uchisoto* can be translated into the chart below.

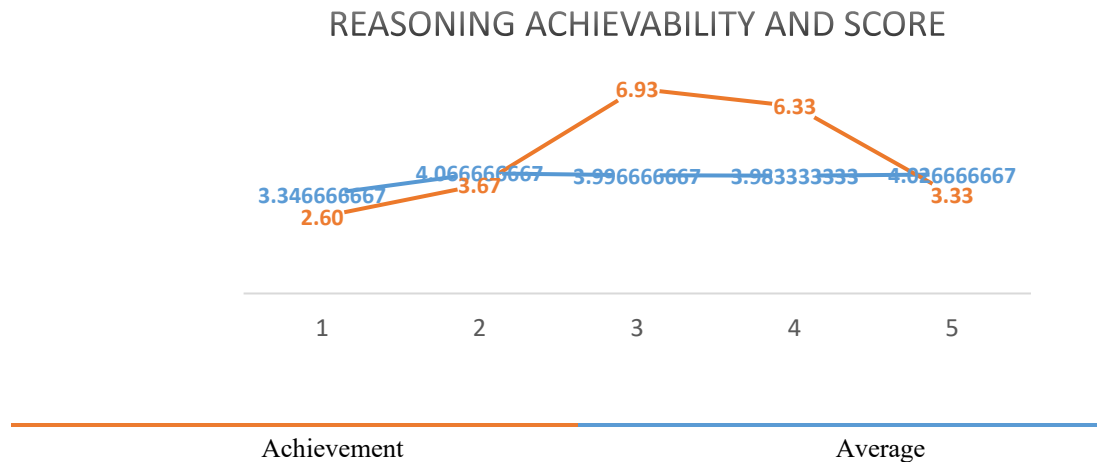


Figure 10. Reasoning Achievability and Score

The overall capability is 45.8 of average capability of 38.6. This means that test participant's capability is capable of meeting the minimum indicators in understanding the concept of *uchisoto* in daily life communication. Based on the test instruments developed, each dimension is measured for the average score resulted. The average score of the capability reflects test participant's achievement. The minimum capability in each dimension is as in the chart and in general the capability is not far from the average needed to achieve the competence in understanding the concept of *uchisoto* as Japanese language learner.

Mastery of general context is needed to understand the social and cultural context in Japan. In general, mastery of the concept of *uchisoto* develops with mastery of social context of Japanese community, thus the construction is acceptable. The context in a communication in Japanese culture and language depends on how a community builds stimulus and differentiates responses used to differentiate the roles, functions and forms. The mastery concept is adjusted to the condition of community's speech level as the former of context in the community. In other words, mastery of *uchisoto* in test is capable of identifying that language as certain community's identity should meet the linguistic elements which specifically form pattern in a community. In a community, each member of language community can receive positive and negative values shown in a communication process, in addition, the prestige shown in a language community also refers to social context, social role, and social function built to construct community's understanding. Just like Javanese and Balinese languages, the speaking communities use language based on different social classes. In the context, language has become marker of the degree of prestige of a person's group as shown with choice of words, intonation, and race that affect speech and Attitude of speaker and hearer.

4.4 A Sociolinguistic Approach as Uchisoto Learning References

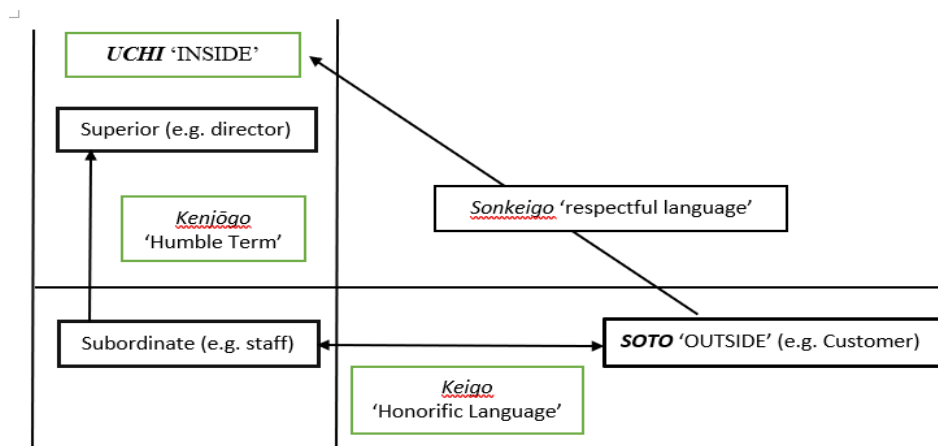


Figure 11. Uchisoto Concept

The difficulties in implementing *uchisoto* concepts is because this concept is inversely proportional to the common use of respectful language. *Uchisoto* concept in company domain, a subordinate can use humble language to his/her superior. This concept is different with the concept of honorific language in Javanese and Balinese as Indonesian local languages which implement speech levels. In the contexts of *uchisoto* along with Javanese and Balinese languages, a secretary can still use respectful language to his/her superior when making a dialog with outsiders. Differences in cultural backgrounds are difficulties faced by Japanese language learners in understanding *uchisoto* concepts. *Uchisoto* is related to social factor social discussed in sociolinguistics. Sociolinguistics puts language not only based on system but also as a means of communication related to the speech communities' social factors.

The researchers use a sociolinguistic approach as a teaching method for materials using *uchisoto*. A sociolinguistic approach greatly helps students adjust to the use of *uchisoto* concept based on social factors and hearers in the communication processes. Sociolinguistics can lead and motivate students to speak in the proper social contexts, so that it is greatly important for teachers to introduce sociolinguistics through language learning materials to provide the students adequate knowledge on the relationship between language and social context. The illustration of conversation between secretary and customer is as follows.

Basically, honorific language in any language applies that the speakers will use respectful language to subjects/individuals having higher positions. In social context related to differences in age education level, relationship between participants in a place where communication is made. However, the social context of *uchisoto* which becomes the key in selecting *kenjugo*/humble language used to speak with a superior /individual who should be respected is due to the presence of the third party. A superior is considered as *uchi* party who should not be highly respected using sentences in the forms of *sonkeigo*/respectful language. Therefore, in language teaching, the teachers should be able to determine all aspects related to the use of either spoken or written language. The teachers have no chance to transform their students' sociolinguistic competence overnight, yet by contextualizing the language presentation regularly by reviewing the impact of social and cultural factors on language including the lessons with a functional approach, teachers can increase the students' sociolinguistic awareness. These should not be introduced as isolated exercises, but as a context and social aspect incorporated to all exercises and examples.

5. Conclusions and Recommendations

Uchisoto.id is a website used to: 1) measure understanding, logical thinking, and perceptions of Indonesian speakers towards Japanese language and culture related to the concept of *uchisoto*; 2) describe the abilities of Indonesian speakers regarding the existence of *uchisoto* and its implementation in social interactions in Japan; and 3) identifying non-linguistic aspects that make up the complexity of the problem of learning Japanese from *uchisoto*'s perspective as a social phenomenon within different cultures and customs.

Research into the development of a web-based assessment in the form of uchisoto.id contains test items to see the learning perspective in understanding *uchisoto* as a Japanese speaking level. The development of *uchisoto*.id has become a practical and meaningful measurement medium because it contains perceptions and logical constructions that directly measure the level of mastery of the *uchisoto* concept.

The research results show cultural background factors that make it difficult to understand the concept of *uchisoto*. A poor level of understanding also causes the complexity of sentence patterns in the form of *keigo* / Japanese honorific language, especially in lexical changes because students have to memorize special words that cannot be changed through certain patterns. For Indonesian students studying Japanese, material related to *uchisoto* is material that is not easy to understand because *uchisoto* has several phenomena that are reversed from the general theory of honorific language where staff or subordinates can use humble language towards their superiors due to the presence of a third party (*soto*/leave the group).

The test results show that Japanese language students in Indonesia can apply and project the *uchisoto* concept in business communication. Bad scores were found in students' ability to identify humble language expressions addressed to leaders when communicating with third parties who were positioned as *soto* parties (out group). The researchers used a sociolinguistic approach as a method of teaching material using *uchisoto*. The sociolinguistic approach really helps students adapt to the use of the *uchisoto* concept based on social and listener factors in the communication process.

References

- Andriyani, A. A. A. D., Djatmika, D., Sumarlam, S., & Rahayu, E. T. (2018). The phenomena of Brown and Levinson's politeness strategies implemented by the tourism actors in Kuta Beach Bali. *Prasasti*, 166, 372-375.
- Ashby, D. (2013). Uchi/Soto in Japan: A global turn. *Rhetoric Society Quarterly*, 43(3), 256-269.
- Bachnik, J. M. (1994). Introduction: Uchi/Soto: Challenging our conceptualizations of self, social order, and language. In J. M. Bachnik & C. J. Quinn Jr. (Eds.), *Situated meaning: Inside and outside in Japanese self, society, and language* (pp. 3-37). Princeton University Press.
- Bachnik, J. M. (1998). *Time, space and person in Japanese relationships*. Routledge.
- Bunkachou. (1985). *Kotoba shirizu - Keigo*. Okurashou Insatsukyoku.
- David, O. (2009). *The sociolinguistics of addressee honorifics (Teineigo) style mixing in Japanese semi-formal interviews* [Master's thesis, University of Oxford].
- Hasegawa, Y., & Hirose, Y. (2005). What the Japanese language tells us about the alleged Japanese relational self. *Australian Journal of Linguistics*, 25(2), 219-251.
- Holmes, J. (1992). *An introduction to sociolinguistics*. Addison Wesley Longman.
- Honda, K., Levett-Jones, T., Stone, T., & Maguire, J. (2016). Japanese nursing students' sense of belonging: A story of Uchi (insider) and Soto (outsider). *Nurse Education in Practice*, 20, 85-92. <https://doi.org/10.1016/j.nepr.2016.07.004>
- Huang, M., & Jaszczolt, K. M. (Eds.). (2018). *Expressing the self: Cultural diversity and cognitive universals*. Oxford University Press.
- Hudson, M. E. (2011). Student honorifics usage in conversations with professors. *Journal of Pragmatics*, 43(15), 3689-3706. <https://doi.org/10.1016/j.pragma.2011.09.004>
- Jo, K. K. K. (2008). *Shin 'Kotoba' shirizu 21: Watashitachi to keigo*. Gyosei.
- Kabaya, H. et al. (2010). *Keigo komyunikeeshon*. Asakura.
- Kaneko, H. (2010). *Nihongo keigo toreningu*. PT ASK.
- Kang, Y. (2021). Interaction and identity in a cultural space: 'Uchi' versus 'Soto' in a Japanese genkan. *European Journal of East Asian Studies*, 20(2), 310-343.
- Kikuchi, Y. (1996). *Keigo nyuumon*. Maruzen.
- Makiko, T. (2006). From *Keigo* 'honorifics' to *Keii-hyougen* 'respect expressions': Linguistic ideologies of Japanese honorifics. In *Proceedings of the Annual Meeting of the Berkeley Linguistics Society* (Vol. 32, pp. 401-412).
- Makino, A., et al. (2002). *Minna no Nihongo*. Network.
- Meagher, C. (2017). Constructing an interior public: Uchi and Soto in the Japanese sharehouse. *Home Cultures*, 14(2), 113-136. <https://doi.org/10.1080/17406315.2017.1373442>
- Miller, R. A. (1967). *The Japanese language*. The University of Chicago Press.
- Okamoto, S. (2014). Variability in societal norms for Japanese women's speech: Implications for linguistic politeness. *Multilingua*, 32(2), 203-223.
- O'Neill, P. G. (2015). *Japanese respect language: When, why, and how to use it successfully*. Tuttle Publishing.
- Rahayu, E. T. (2014). Comparison of honorific language in Javanese and Japanese speech community. *International Journal on Studies in English Language and Literature*, 2(7), 140-146.
- Rahayu, E. T. (2020). Bentuk dan sistem pengungkap tingkat tutur bahasa Jepang. *PROLITERA: Jurnal Penelitian Pendidikan Bahasa, Sastra, dan Budaya*, 3(2), 131-138.
- Rahayu, E. T., & Hartati, A. S. (2020). Request expressions in Japanese language for educational purpose. *Universal Journal of Educational Research*, 8(1), 123-130.
- Saito, J. (2010). Subordinates' use of Japanese plain forms: An examination of superior-subordinate interactions in the workplace. *Journal of Pragmatics*, 42(12), 3271-3282.
- Shibatani, M. (2006). Honorifics. In *Encyclopedia of Language & Linguistics* (2nd ed., pp. 381-390). Elsevier.
- Škof, N. M. (2023). Understanding vocabulary of L2 learners of Japanese. *Acta Linguistica Asiatica*, 13(1), 89-106.

- Sunyoto, D. (2016). *Metodologi penelitian akuntansi*. PT Refika Aditama.
- Suzuki, Y. (1998). *Utsukushii keigo no manaa*. Miryoku Bijutsu.
- Wardhaugh, R. (1986). *An introduction to sociolinguistics*. Basil Blackwell.
- Wiyatasari, R. (2020). Konsep uchisoto dalam penerjemahan yari-morai. *Chi'e: Journal of Japanese Learning and Teaching*, 8(1), 57-63.
- Yasunori, & Yuniarsih. (2019). Uchi and Soto culture of business letters in Japanese. *Journal International Seminar on Languages, Literature, Arts, and Education (ISLLAE)*, 1(1), 169-174.

Acknowledgments

We greatly appreciate the valuable contribution from the Institute for Research and Community Service (IPPM) at Jenderal Soedirman University. We would like to thank each team member who donated their time to participate in this study.

Authors contributions

Memet Sudaryanto and Muhammad Nur Yasir Utomo were responsible for the study design and revising. Hartati was responsible for data collection. Safrina Arifiani and Rizki Utami drafted the manuscript, and Fauzan Fadlullah revised it. All authors read and approved the final manuscript. In this paragraph, also explain any special agreements concerning authorship, such as if authors contributed equally to the study.

Funding

This research was funded by the Ministry of Higher Education, Science, and Technology of the Republic of Indonesia under the BIMA program for the 2026 funding cycle (Grant/Contract No. 080/C3/DT.05.00/PL-MULTITAHUN LANJUTAN/2026). The authors are grateful for the financial and institutional support provided.

Competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Disclosure of AI Use

This research is conducted independently and does not use of AI.

Informed consent

Obtained.

Ethics approval

The Publication Ethics Committee of the Sciedu Press.

The journal's policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

Provenance and peer review

Not commissioned; externally double-blind peer reviewed.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.

Open access

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.