

PRODUCTIVE KANJI USE IN JAPANESE SAKUBUN: EVIDENCE FROM ELEMENTARY-LEVEL LEARNERS

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Article Info	Abstract
Article History Received: August 2026 Revised: August 2026 Accepted: September 2026 Published: October 2026	<i>Kanji learning remains challenging for Japanese language learners from non-kanji backgrounds because it requires coordination of form, meaning, reading, and production. Although previous studies have examined kanji learning and sakubun writing, limited evidence exists on how elementary-level learners use kanji productively in written texts. This study examines productive kanji use in sakubun, focusing on kanji distribution, writing difficulties, possible avoidance, and learners' perceptions of integrated kanji-sakubun learning. A qualitative descriptive design supported by descriptive frequency analysis was employed with 27 second-semester students in a Shokyuu Hyoki Sakubun course. Although 27 students participated, 15 independently written sakubun texts were selected for detailed analysis based on completeness and comparability. Classroom observations and a semi-structured questionnaire supplemented the text data. Findings show that kanji use was uneven and concentrated on familiar, contextually relevant characters, with 私 (watashi) occurring most frequently (44 times). Of 98 identified writing difficulties, incorrect kanji formation (46 cases) and bushu stroke-direction errors (34 cases) were most frequent. Additionally, 73.3% reported difficulty distinguishing visually similar kanji, while all respondents viewed integrated kanji-sakubun learning positively. The findings suggest that productive kanji use is shaped by familiarity and context.</i>
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INTRODUCTION

Japanese is characterized by a distinctive and complex writing system that combines three types of characters, including kanji, hiragana, and katakana in written communication (Hasegawa, 2014; Shibatani, 1990). Historically, the Japanese writing system developed through the introduction of Chinese characters and the subsequent emergence of the kana scripts, hiragana and katakana (Frellesvig, 2010). In contemporary Japanese, these writing systems perform distinct but complementary functions. Kanji primarily represents lexical and semantic information, whereas hiragana is mainly used for grammatical elements, particles, and inflectional endings. Katakana, in contrast, is commonly used for loanwords, foreign names, onomatopoeic expressions, and words requiring particular visual marking or emphasis (Hasegawa, 2014).

The coexistence of these writing systems creates particular learning demands for students whose first languages do not employ kanji. Unlike alphabetic scripts, in which written symbols primarily encode phonological information, kanji requires learners to coordinate orthographic form, meaning, and pronunciation. Takebe (1982) conceptualizes

these dimensions as *on*, *kei*, and *gi*, referring respectively to sound, form, and meaning. For learners from non-kanji backgrounds (*hikanjiken*), acquiring and coordinating these dimensions is particularly demanding because they must learn numerous characters, multiple readings, stroke order (*hitsujun*), and structural components such as *bushu* or radicals. Previous studies have consequently identified kanji as a major challenge for non-kanji-background learners because of the cognitive demands associated with processing character forms, meanings, and readings (Fitriani & Ginanjar, 2022; Maehara et al, 2015; Mori, 1998; Mori & Mori, 2011; 2021; Paxton & Svetanant, 2014). Kanji competence, therefore, involves more than recognising individual characters. It also concerns learners' ability to access and use character knowledge appropriately when communicating through written Japanese.

This distinction becomes particularly important when kanji knowledge is considered in relation to productive writing. Recognition, recall, retrieval, orthographic production, contextual selection, and avoidance represent related but conceptually different dimensions of kanji knowledge. Recognition refers to identifying or distinguishing a character when it is encountered. Recall concerns accessing previously learned information from memory, whereas retrieval involves bringing the relevant character into active use. Orthographic production concerns producing the appropriate written form, while contextual selection involves choosing an appropriate kanji for a particular lexical or discourse context. Avoidance, in turn, refers to instances in which learners do not use a kanji that would otherwise be expected or appropriate in a particular context. These dimensions should not be treated as interchangeable because successful recognition does not necessarily demonstrate that a learner can retrieve, select, and produce the same character during spontaneous writing.

The present study uses the concept of *productive accessibility* to refer to the extent to which learners can access and apply their available kanji knowledge when independently producing connected written Japanese. Productive accessibility is thus concerned not simply with whether learners have encountered or can recognise a character, but with whether they can retrieve and select an appropriate kanji and produce it accurately in a meaningful written context. In learner-generated writing, productive accessibility can be examined through the kanji learners actually use, the frequency with which particular characters occur, instances of inappropriate or inaccurate application, and patterns of non-use where the expected use of kanji can be established. However, non-use alone cannot automatically be interpreted as avoidance because the absence of a character may result from vocabulary choice, task demands, or the linguistic context. Accordingly, the present study treats avoidance cautiously and interprets it in relation to the available writing context rather than assuming that every instance of non-use reflects a lack of kanji knowledge.

The relevance of productive accessibility becomes particularly apparent in *sakubun*, or Japanese composition writing. Conventional kanji instruction has frequently emphasised repeated reading and writing as ways of strengthening character memory (Gamage, 2003; Habein & Mathias, 1991). Although such practices may support character recognition and retention, productive writing requires learners to coordinate kanji knowledge with vocabulary selection, sentence construction, grammatical accuracy, and the organisation of ideas. In *sakubun*, learners must therefore make linguistic and orthographic choices while constructing connected discourse rather than simply responding to isolated character-learning activities. Kanji is an essential component of *sakubun* alongside sentence structure, vocabulary, content, and appropriate expressions (Oomori & Kono, 2013). Examining learners' actual writing can consequently provide evidence of how kanji is accessed and applied when learners are required to communicate meaning through connected Japanese text.

Empirical research has documented continuing difficulties in Japanese writing and kanji learning, but these two areas have often been investigated separately. Studies of Japanese writing have reported various forms of errors in beginner learners' compositions (Liblub et al,

2022) and have examined collaborative learning through Padlet (Aneros & Herniwati, 2023), the development of writing materials to promote literacy and creativity (Rismorlita & Philiyanti, 2023), and instructional approaches to improve writing performance (Utari et al, 2024). These studies contribute to an understanding of learners' difficulties in constructing Japanese written texts, but they do not specifically examine the range and accessibility of kanji that learners independently apply in their *sakubun*.

Similarly, kanji-related studies have focused on learners' beliefs and learning strategies (Firmansyah et al, 2021), character recognition (Fukuda, 2024), and difficulties experienced by first-year Japanese-language learners (Thủy & Cúc, 2024). Aneros et al. (2025) further reported difficulties among Indonesian learners in understanding kanji meanings, distinguishing *onyomi* and *kunyomi* readings, and applying kanji in complex contexts. These studies provide important evidence of the challenges involved in learning and processing kanji. Nevertheless, their primary focus remains on aspects of kanji learning, recognition, comprehension, or instructional practice rather than on the kanji that learners actually retrieve and apply in independently produced connected writing.

A study particularly relevant to the present research is Astami et al. (2014), which investigated the relationship between kanji performance and *sakubun* performance among intermediate-level learners. This study demonstrates that the relationship between kanji knowledge and Japanese writing has previously been recognised. However, the focus and scope of the present study differ in several important respects. First, whereas Astami et al. (2014) examined the relationship between kanji performance and *sakubun* performance among intermediate learners, the present study focuses specifically on elementary-level learners and the kanji observable in their independently produced *sakubun*. Second, rather than treating kanji performance and writing performance as separate measures whose relationship is examined, the present study analyses the productive application of kanji within the writing itself. Third, the present study considers not only the characters that learners use but also their frequency, contextual application, difficulties, and patterns of non-use or possible avoidance. Finally, it incorporates learners' perceptions of integrating kanji learning with *sakubun* activities. Thus, the present study extends previous work by examining productive kanji use as it occurs within learner-generated writing rather than focusing primarily on the relationship between separate measures of kanji and writing performance.

Despite the growing body of research on Japanese writing and kanji learning, an empirical gap therefore remains concerning how elementary-level learners make kanji productively accessible when independently constructing connected Japanese texts. In particular, insufficient evidence is available regarding which kanji learners actively use in *sakubun*, how frequently they use them, which characters appear less frequently or are potentially avoided, what difficulties arise when learners select and apply kanji in context, and how learners themselves perceive the integration of kanji learning and writing practice. This gap is important because kanji competence demonstrated through recognition or isolated learning activities does not necessarily reveal how learners access character knowledge during spontaneous or independently produced writing. Analysing learner-generated *sakubun* can therefore provide a more contextualised account of productive kanji use while also revealing the linguistic and orthographic challenges that may not be visible in isolated character-learning tasks.

The novelty of the present study lies in its integrated examination of productive kanji use within elementary learners independently produced *sakubun*. Rather than investigating kanji acquisition and *sakubun* performance as separate areas, the study examines kanji as an orthographic and lexical resource that learners must access, select, and apply while constructing meaningful written discourse. It combines textual evidence of kanji use with learner-reported perceptions, allowing the study to identify not only the types and frequency

of kanji appearing in learner writing but also difficulties in contextual application and patterns of non-use that may indicate limited productive accessibility. This focus distinguishes the study from previous research centred primarily on intermediate learners, isolated kanji learning, recognition, learning strategies, or general writing performance. The study therefore contributes empirical evidence on the productive accessibility of kanji in elementary-level Japanese writing, while maintaining a distinction between what can be observed directly in learners' texts and what can only be inferred from their perceptions.

Based on this research gap, the present study aims to analyze the productive application of kanji in *sakubun* writing among elementary-level Japanese language learners. Specifically, it examines four interrelated aspects: (1) the types and frequency of kanji used in learners' *sakubun*; (2) kanji that occur infrequently or appear to be avoided in contexts where their use can reasonably be expected; (3) difficulties demonstrated in applying kanji in written contexts, including issues related to form, meaning, reading, and contextual selection; and (4) learners' perceptions of integrating kanji learning with *sakubun* activities. The analysis of form, meaning, and reading is informed by Takebe's (1982) conceptualisation of kanji knowledge, while attention to character components, including *bushu* or radicals, draws on Mitamura (1997). Importantly, the study does not directly measure learners' recognition or recall abilities. Instead, it examines productive accessibility as evidenced in learners' written production and interprets learners' reported perceptions as complementary evidence.

The study is limited to elementary-level Japanese language learners and their independently produced *sakubun* texts. It does not compare learners across proficiency levels, experimentally evaluate teaching methods, or directly measure kanji acquisition through controlled recognition, recall, or memorisation tests. A qualitative descriptive approach is employed, with learners' *sakubun* serving as the primary source of evidence and learners' perceptions providing complementary information. This scope enables the study to examine how kanji knowledge is made available for productive use in meaningful written communication without making claims about learners' underlying kanji knowledge that cannot be directly observed from the writing data. The findings are expected to provide empirical evidence for more contextualised kanji instruction that integrates character learning with meaningful writing practice.

Accordingly, the study addresses the following research questions: (1) What types and frequencies of kanji are used by elementary-level Japanese language learners in their independently produced *sakubun*?; (2) Which kanji occur infrequently or appear to be avoided in learners' *sakubun*, and in what contexts do these patterns occur?; (3) What difficulties do elementary-level learners demonstrate when applying kanji in their *sakubun*, particularly in relation to form, meaning, reading, and contextual selection?; and (4) How do elementary-level learners perceive the integration of kanji learning with *sakubun* activities?

RESEARCH METHOD

Research Design

This study employed a qualitative descriptive research design supported by descriptive frequency analysis to examine the productive use of kanji in *sakubun* writing among basic-level Japanese language learners. The qualitative descriptive approach was selected to describe and interpret students' actual kanji use, writing difficulties, observable writing practices, and perceptions in a natural classroom context. Descriptive frequency analysis was used to summarize the occurrence of kanji and categories of writing difficulties as descriptive evidence, rather than as inferential statistics or measures of learners' underlying kanji knowledge. The study addressed four interrelated aspects: (1) the types and frequency of kanji produced in students' *sakubun* texts; (2) the occurrence of kanji beyond the targeted instructional materials and the limited use of kanji in the writing task; (3) difficulties and errors in kanji formation and stroke production; and (4) students' reported experiences and

perceptions of kanji use in contextual writing activities. Limited occurrence or non-use of a potentially relevant kanji was interpreted only as a feature of performance in the particular writing task and was not treated as direct evidence of insufficient knowledge or intentional avoidance.

Three complementary data sources were used, including students' *sakubun* texts, participatory classroom observation, and a semi-structured questionnaire. The *sakubun* texts provided direct evidence of written kanji production, classroom observation provided contextual information about observable writing behaviour, and the questionnaire captured students' reported difficulties, strategies, and perceptions. The integration of these sources supported methodological triangulation (Bachri, 2010). The overall analytical process followed Miles et al.'s (2014) model of data condensation, data display, and conclusion drawing and verification, while frequency counts were used within the data-display stage to describe recurring patterns in the written data.

Research Participants and Setting

The participants were 27 first-year, second-semester students (10 male and 17 female) enrolled in Class 2A of the Japanese Language Education Study Program, Faculty of Language and Literature Education, Universitas Pendidikan Indonesia. They were taking the Shokyuu Hyoki Sakubun course during the even semester of the 2024/2025 academic year. Purposive selection was applied at the class level, rather than to individual students. Class 2A was selected because it provided the required context: an elementary-level Japanese writing course involving kanji use in *sakubun* activities. All 27 students in the intact class were subsequently included in the study; therefore, individual students were not selectively sampled. The research was conducted during six face-to-face meetings held on Tuesdays from 13:00 to 16:20, with approximately 200 minutes allocated to each meeting. Before data collection, research permission was obtained from the relevant study program. Participants were informed of the research purpose and procedures, and participation was voluntary. Their academic standing was not affected by participation or responses. Anonymous codes were used throughout the analysis and reporting.

Instruments

Three instruments were utilized including a participatory observation sheet, a semi-structured questionnaire, and a documentation protocol for students' *sakubun* texts. Participatory observation was conducted throughout the six meetings. The observation focused on observable writing behaviour, including kanji selection and production, hesitation or visible difficulty, use of hiragana or katakana in contexts where kanji could potentially be used, consultation of dictionaries or learning materials, reference to written models, requests for assistance, and responses to kanji-related difficulties. Field notes were also used to record relevant classroom interactions and contextual information. Observation data were used to contextualize the written and questionnaire data rather than to infer students' underlying kanji knowledge.

The semi-structured questionnaire was administered online through Google Forms and consisted of 40 items, including 20 Likert-scale items and 20 open-ended questions. The Likert-scale items used a 1-5 response format in which 1 means strongly disagree and 5 means strongly agree. The questionnaire examined three areas: students perceived difficulties in learning and using kanji, strategies used when encountering kanji-related difficulties, and perceptions of applying kanji in *sakubun* writing. The questionnaire was reviewed by two lecturers specializing in Japanese language education for relevance, clarity, and appropriateness and was piloted with 10 students who were not participants in the study. Feedback from the review and pilot was used to revise ambiguous or unclear items. One example of open-ended question is "Have you ever recognized or understood a kanji when

reading it but had difficulty writing it from memory? Please describe your experience.”, while one example of likert scale items can be seen as follows: “Applying kanji in *sakubun* is an effective way to reinforce kanji retention.”

Students’ *sakubun* texts constituted the primary documentary data for analysing productive kanji use. Writing activities were conducted during three of the six meetings, and each text was assigned an anonymous participant code. Although 27 students participated in the study, only 15 *sakubun* texts were included in the detailed kanji analysis. These texts represented 15 students, with one completed text selected from each student whose text met the inclusion criteria. The criteria were that the text represented the designated writing task, was complete, and was sufficiently legible to permit reliable identification and classification of kanji. Data from the remaining participants were retained for other relevant components of the study, such as observation and questionnaire analysis, where applicable. The distinction between participants and texts is therefore important: the participant unit was the individual student ($N = 27$), whereas the documentary unit for detailed written-production analysis was the *sakubun* text ($N = 15$). Further, for the *sakubun* analysis, kanji were classified according to whether they were (1) included in the targeted *Kanji Masutaa* N4 instructional materials examined in the study or (2) produced outside the targeted chapters. The analysis also recorded instances in which a kanji that could reasonably have been used in the writing task was not produced, including cases in which students used hiragana or katakana instead. Such cases were treated descriptively as limited kanji occurrence or non-use and were not automatically interpreted as intentional kanji avoidance.

Kanji writing difficulties were coded according to the observable features of the written forms. The final error categories were incorrect kanji formation, incorrect direction of *bushu* strokes, missing *haneru* strokes, and disconnected strokes. These categories were used to describe orthographic problems evident in the students’ written production. Errors were counted as instances of observable writing difficulty rather than as evidence of students’ underlying cognitive or linguistic knowledge.

Data Analysis

Data analysis combined qualitative coding with descriptive frequency analysis and was conducted in four main stages. First, the data were organized and familiarized according to the research questions. The 15 *sakubun* texts were reviewed and coded for kanji production, kanji occurring outside the targeted *Kanji Masutaa* N4 chapters, limited kanji occurrence or non-use, and observable kanji writing difficulties. Questionnaire responses and observation notes were coded for recurring difficulties, strategies, perceptions, and observable writing behaviours. Braun & Clarke’s (2006) thematic procedures informed the identification and grouping of recurring patterns in the questionnaire and observation data.

Second, descriptive frequency counts were calculated for the coded written-production categories. These included the frequency of kanji from the targeted *Kanji Masutaa* N4 materials, the frequency of kanji produced outside the targeted chapters, and the frequency of the identified kanji writing-error categories. Questionnaire responses were also summarized descriptively to indicate the proportion of students reporting particular difficulties and perceptions. These counts were used to describe patterns within the collected data and were not treated as measures of general kanji proficiency, cognitive difficulty, or intentional avoidance.

Third, findings from the three data sources were compared to identify converging and contrasting patterns. For example, students’ reported difficulties with visually similar kanji, stroke order, and contextual kanji selection were compared with observable writing behaviours and patterns in the *sakubun* texts. This cross-source comparison supported methodological triangulation and helped distinguish reported experiences from observable behaviour and written performance.

Finally, emerging interpretations were reviewed and verified. The analysis did not statistically test relationships among questionnaire responses, classroom behaviour, and written performance, nor did it attempt to establish causal relationships between *sakubun* activities and kanji development. Conclusions were therefore limited to patterns observable in the collected data and to participants' reported or observed experiences. To strengthen credibility, coding and category assignments were repeatedly reviewed and discussed through peer debriefing with two lecturers specializing in Japanese language and linguistics. Participant identities were protected through anonymous codes throughout the analysis and reporting.

RESEARCH FINDINGS AND DISCUSSION

Research Findings

This section presents the main patterns identified in the students' productive use of kanji in *sakubun* writing on the theme *Watashi no Kazoku* (My Family). Across the written texts, classroom observations, and questionnaire responses, five closely related patterns emerged: uneven productive use of kanji, concentration on contextually relevant characters, orthographic difficulties in kanji formation and stroke direction, use of hiragana in contexts where kanji could have been used, and positive perceptions of contextualized kanji practice. Descriptive frequency counts and thematic coding were used to compare patterns across the three data sources.

Distribution and Frequency of Kanji Use

Of the 27 students who participated in the study, 15 *sakubun* texts, representing 15 students, were included in the detailed kanji analysis because they met the predetermined inclusion criteria. The remaining participants' data were retained for other relevant components of the study, such as classroom observation and questionnaire analysis, where applicable. This distinction is important because the frequency findings reported below are based on the 15 analysed texts rather than the full group of 27 participants.

The 15 *sakubun* texts contained 178 occurrences of kanji drawn from the *Kanji Masutaa* N4 materials examined in this study. The distribution was uneven, with several characters occurring frequently and others appearing only once. 私 (*watashi*, I) was the most frequent character, with 44 occurrences, followed by 所 (*sho*, place) with 14 and 有 (*yū/aru*, have/exist) with 12. 家 (*ie*, house) and 地 (*chi*, area/land) occurred eight times each, while 公 (*kō*, public), 住 (*jū/sumu*, live), and 族 (*zoku*, family) occurred six times each. Eleven characters occurred once: 前, 育, 広, 静, 近, 作, 始, 終, 切, 品, and 便. Table 1 presents the complete distribution.

Table 1
Frequency of Kanji from *Kanji Masutaa* N4 Used in Students' *Sakubun*

Num	Kanji	Frequency
1	私	44
2	所	14
3	有	12
4	家、地	8 each
5	公、住、族	6 each
6	園	5
7	番、光、店、使	4 each
8	毎、思、都、特	3 each
9	道、県、市、緑、場、黒、親、朝、午	2 each
10	前、育、広、静、近、作、始、終、切、品、便	1 each
Total		178

The distribution suggests that students' productive use of the targeted kanji repertoire was concentrated rather than uniform. The high frequency of 私, together with the relatively frequent occurrence of characters such as 家, 住, 族, and 親, is partly consistent with the lexical demands of the *Watashi no Kazoku* task. Conversely, the low frequency of some characters indicates only that they occurred less often in these particular texts; it does not, by itself, demonstrate that the characters were more difficult for students or that they were intentionally avoided.

Students also produced 24 occurrences of kanji outside the targeted *Kanji Masutaa* N4 chapters. 天 (*ten*, sky) occurred five times, followed by 駅 (*eki*, station) with four and 色 (*iro*, colour) with three. 鉄, 文, 化, and 知 occurred twice each, while 持, 乗, 降, and 通 occurred once each.

Table 2
Kanji Outside the Targeted Kanji *Masutaa* N4 Chapters Used in Students' *Sakubun*

Num	Kanji	Frequency
1	天	5
2	駅	4
3	色	3
4	鉄、文、化、知	2 each
5	持、乗、降、通	1 each
Total		24

These additional occurrences indicate that students' productive kanji use extended beyond the characters explicitly targeted in the selected instructional chapters. However, the relatively low frequency of most additional characters suggests that such use was limited within the particular writing task.

Table 3
Types and Frequency of Kanji Writing Errors

Num	Kanji	Frequency
1	Incorrect kanji formation	46
2	Incorrect direction of <i>bushu</i> strokes	34
3	Missing <i>haneru</i> strokes	14
4	Disconnected strokes	4
Total		98

Incorrect formation and stroke-direction problems together accounted for 80 of the 98 identified difficulties. Examples involving characters such as 静 and 緑 showed that students sometimes produced forms containing recognisable components of the intended characters but with inaccuracies in the overall character formation. Similar problems were observed in the production of characters such as 育 and 親, particularly in relation to stroke direction. These patterns indicate that the principal orthographic difficulties observed in the analysed texts concerned the accurate reproduction of character forms and stroke features.

Kanji Use, Hiragana Substitution, and Students' Perceptions

The written texts and classroom observations showed instances in which students used hiragana in contexts where kanji could also have been used. Such instances were not treated as definitive evidence of deliberate kanji avoidance. Rather, the observations and questionnaire responses suggest that students sometimes relied on hiragana when they were uncertain about a character's form, reading, or contextual appropriateness.

The questionnaire provided further evidence of difficulties related to kanji use. Approximately 73.3% of students reported difficulty distinguishing or remembering visually similar kanji, while 46.7% reported difficulty remembering stroke order. In addition, 56.3% reported difficulty selecting the appropriate kanji in context. These responses correspond with the orthographic and selection-related difficulties observed in the written data, although the findings do not establish a direct causal relationship between the reported difficulties and particular writing behaviours.

Despite these difficulties, students reported positive perceptions of learning kanji through contextualized *sakubun* writing. All respondents indicated that integrating kanji learning with *sakubun* was helpful for understanding kanji meaning and use; 66.7% agreed and 33.3% strongly agreed with the relevant positive questionnaire statement. Taken together, the three data sources indicate that students experienced challenges in producing and selecting kanji while also viewing contextualized writing as a useful learning context.

Discussion

The findings suggest that the central issue in beginner learners' productive kanji use is not simply how many kanji they have encountered, but the extent to which those kanji are productively accessible when learners need to express meaning in independent writing. The uneven distribution of kanji in the *sakubun* provides the clearest evidence for this distinction. Although the learners had been exposed to a shared instructional repertoire, they did not use the characters equally. Instead, they relied heavily on a relatively small number of familiar characters that were closely related to the *Watashi no Kazoku* topic. The particularly high frequency of 私 is understandable because the task required students to describe themselves and their families, while 家, 住, 族, and 親 were also directly relevant to family, residence, and interpersonal relationships. Thus, frequency of production appears to reflect not only prior instruction but also the accessibility of a character at the moment of writing.

This finding supports a distinction between kanji repertoire and productive accessibility. In the present study, *kanji repertoire* refers to characters that learners had encountered or learned through instruction and other forms of exposure, whereas *productive accessibility* refers to the extent to which those characters could be retrieved and reproduced when learners needed them in independent writing. These constructs should not be treated as equivalent. A learner may recognize a character, remember its meaning, or have encountered it repeatedly without being able to retrieve its graphic form efficiently during writing (Mori, 1998; Mori & Mori, 2011; Koda, 2007). Recent research supports the importance of considering how learners process and organize kanji rather than treating kanji knowledge as a single undifferentiated ability. Gamage (2026), for example, found that L2 Japanese learners employed analytic strategies involving the organization and association of kanji with radicals, meanings, pronunciations, and previously learned characters. Such findings are relevant to the present study because productive use requires learners to coordinate several types of knowledge rather than merely recognize a familiar visual pattern.

The topic of the writing task also appears to have shaped productive accessibility. Characters that were semantically relevant to family and residence were more readily retrieved than characters that were less useful for expressing the assigned topic. Conversely, characters such as 前, 育, 広, 静, 近, 作, 始, 終, 切, 品, and 便 occurred infrequently. Their low frequency, however, should not be interpreted as evidence that the learners did not know these characters. The task simply provided fewer communicative reasons to retrieve them. This interpretation is important because a single *sakubun* cannot capture the full breadth of a learner's kanji repertoire. Recent corpus-based work on L2 Japanese writing likewise indicates that kanji use varies according to writing topic, demonstrating that the proportion and distribution of kanji cannot be interpreted independently of the communicative demands

of a text. The present findings therefore suggest that productive accessibility is partly context-dependent: a character may be available within a learner's repertoire but remain temporarily inaccessible when it is not strongly activated by the topic or intended meaning.

The production of 24 kanji outside the targeted *Kanji Masutaa N4* chapters provides further evidence for the distinction between repertoire and accessibility. These characters demonstrate that the learners' productive resources extended beyond the immediate instructional materials, presumably through previous learning or exposure. However, most of these additional characters occurred only once or twice. Their limited recurrence suggests that isolated successful production should not automatically be equated with stable productive mastery. Rather, the learners appeared to possess a broader repertoire than their most frequently produced characters would suggest, while access to that repertoire was uneven. This interpretation is consistent with recent research emphasizing that learners' kanji knowledge develops through multiple strategies and forms of exposure. Gamage (2024), for instance, found that beginner learners with alphabetic-language backgrounds actively generated visual and semantic associations when learning kanji, indicating that learners may develop resources that extend beyond the characters explicitly emphasized in a particular instructional sequence.

The findings concerning the 98 writing errors further clarify the difference between having access to a kanji representation and being able to produce it accurately. Formation errors and stroke-direction errors accounted for most of the identified problems. These errors indicate that productive kanji knowledge involves more than recognition of a character's overall visual identity. Learners must also retrieve its component structure and execute the written form. Contemporary research on Japanese orthography supports the importance of distinguishing visual and orthographic processing. Dylman et al. (2022), for example, demonstrated that orthographic characteristics influence processing in Japanese scripts, while Inohara & Ueno (2023) provided evidence that kanji contain systematic relationships between orthographic and semantic information at the radical level. These findings help explain why learners may retain recognizable components of a character while failing to reconstruct its complete written form accurately.

The present errors can therefore be interpreted as evidence of partial productive accessibility rather than complete absence of kanji knowledge. In characters such as 静 and 緑, recognizable components indicate that some elements of the orthographic representation were available, even though the complete forms were not accurately reproduced. Similarly, difficulties with characters such as 育 and 親 suggest that visual familiarity does not necessarily guarantee accurate production. Recent work on kanji-writing support also demonstrates that successful kanji writing requires sustained opportunities to practise production rather than relying solely on recognition-oriented learning. Kurihara (2021), for example, found that many learner-oriented kanji materials primarily supported visual recognition, highlighting the need to address the actual operation and use of kanji.

The findings also extend the repertoire–accessibility distinction to kanji avoidance. When students substituted hiragana for a potentially expected kanji, they were able to preserve the intended meaning while avoiding the need to retrieve and reproduce a difficult orthographic form. In this sense, hiragana functioned as an accessible alternative during uncertainty. Productive difficulty therefore did not always appear as an incorrect kanji; it could also appear as non-production or substitution. This observation is important because analyses based exclusively on incorrect kanji forms may underestimate the extent of learners' productive difficulty. At the same time, hiragana substitution should not automatically be classified as avoidance. Some lexical items are conventionally written in hiragana, and learners may make orthographic choices for lexical, stylistic, or contextual reasons.

Accordingly, the present findings support the interpretation of avoidance only where the context indicates that a kanji form was potentially available or expected.

The questionnaire findings provide additional support for this interpretation. Difficulties with visually similar characters (73.3%), contextual kanji selection (56.3%), and stroke order (46.7%) corresponded with the problems identified in the *sakubun* data. The convergence of the written texts, classroom observations, and questionnaire responses strengthens the interpretation that learners' difficulties involved several interconnected dimensions of productive kanji use. In particular, visual similarity may interfere with accurate retrieval of character forms, while contextual-selection difficulties may limit the transition from knowing a kanji to selecting and using it appropriately. These findings are compatible with recent research showing that kanji learning among L2 learners involves multiple cognitive and learning strategies rather than a single memorization process (Gamage, 2026).

The findings have important implications for how productive kanji knowledge is assessed and taught. Recognition-oriented activities remain necessary, but they may provide only partial evidence of what learners can actually do with kanji. A learner who can recognize 私, for example, may not experience difficulty retrieving it in the present task because its meaning is strongly activated; another character may be recognized but remain difficult to produce because its form is less accessible. *Sakubun* can therefore provide complementary evidence by revealing which characters learners spontaneously select, which they fail to retrieve, how accurately they reproduce their forms, and when they substitute hiragana. This distinction is particularly relevant because recent kanji-learning research has drawn attention to the gap between activities that support recognition and activities that require actual manipulation or production of kanji (Kurihara, 2021).

Pedagogically, the findings suggest that instruction should move learners progressively from repertoire building to productive accessibility. Introducing and recognizing new kanji is only an initial stage; learners also need repeated opportunities to retrieve, write, select, and apply the characters in meaningful contexts. The positive perception of integrated kanji–*sakubun* learning reported by all respondents supports this direction. Personally meaningful writing topics can activate relevant kanji and provide opportunities for retrieval, while teacher feedback can subsequently target formation, stroke direction, component structure, contextual selection, and substitutions. Recent research on kanji learning strategies similarly indicates that learners actively organize kanji through relationships among components, meanings, and pronunciations (Gamage, 2026). Instruction can therefore make these relationships explicit while also requiring learners to retrieve the characters in increasingly independent writing tasks.

Taken together, the findings suggest that productive kanji competence involves several interconnected abilities: selecting an appropriate character, retrieving its form, reproducing its components and strokes, and integrating it into context. This multidimensional view is consistent with research treating kanji learning, vocabulary, reading, and writing as interconnected aspects of Japanese L2 development (Mori & Mori, 2011; Mori et al., 2021). Accordingly, kanji assessment should extend beyond recognition and isolated character tests. *Sakubun* provides complementary evidence of learners' ability to transfer kanji knowledge into independent communication. Instruction may therefore move beyond an “introduce–memorize–test” model toward a cycle of recognition, guided production, contextual application, feedback, and revision. Component-based instruction and handwriting practice may be particularly useful for addressing difficulties in character structure and formation (Fitriani & Ginanjar, 2022; Hatta et al., 2002; Tamaoka & Yamada, 2000).

This interpretation also contributes to the understanding of kanji learning among learners from non-kanji backgrounds. Their difficulty is not necessarily limited to acquiring more characters; it also concerns making existing knowledge sufficiently accessible for

spontaneous written production. Recent research on learners from different orthographic backgrounds indicates that kanji learning strategies vary across learners and contexts, reinforcing the importance of considering how learners organize and access orthographic knowledge (Gamage, 2026). The present study extends this perspective to classroom writing by showing that productive accessibility becomes visible when learners must independently transform intended meanings into written kanji.

Several limitations should nevertheless be acknowledged. The study involved 27 students from one intact class, limiting generalizability. The single *Watashi no Kazoku* prompt may also have influenced kanji frequency, particularly the high occurrence of 私. In addition, the present study did not administer a separate recognition or recall test. Therefore, the distinction between kanji repertoire and productive accessibility is an interpretive framework derived from the patterns of production, errors, observations, and questionnaire responses rather than a direct comparison between independently measured receptive and productive knowledge. The study also focused primarily on handwritten production and did not directly compare handwriting with digital input. Finally, no independent second coder was used to calculate inter-coder agreement, and not every hiragana substitution could be established as deliberate avoidance. Future studies should therefore employ multiple writing prompts, independent measures of kanji recognition and production, larger and more diverse samples, independent coding, and comparisons between handwritten and digital production.

CONCLUSION

This study examined the productive use of kanji in independently produced *sakubun* among elementary-level Japanese language learners. The findings provide four main conclusions corresponding to the research questions. First, regarding the types and frequencies of kanji used in *sakubun*, learners produced a range of kanji, but their use was concentrated on characters that were familiar, frequently encountered, and relevant to the writing topic. This pattern indicates that productive kanji use was selective rather than evenly distributed across the kanji expected at the learners' level. Second, regarding infrequent or avoided kanji, some characters that could have been expected in the learners' writing appeared less frequently or were not used, with hiragana sometimes serving as an alternative. Such patterns were particularly evident when learners appeared uncertain about producing a kanji in a particular context. Kanji avoidance therefore appears to be part of learners' strategies for managing uncertainty during independent writing.

Third, regarding difficulties in applying kanji, learners experienced problems involving character form and stroke production, as well as difficulties related to selecting and applying kanji appropriately in context. These findings indicate that productive kanji competence involves more than recognition: learners must also retrieve, form, select, and apply characters accurately while composing meaningfully. Fourth, regarding learners' perceptions, the learners generally viewed the integration of kanji learning with *sakubun* activities positively. The writing activity was perceived as useful for applying kanji in meaningful contexts and for connecting kanji knowledge with actual written communication. Overall, the study demonstrates that productive kanji competence among elementary-level learners is developing but uneven and cannot be fully understood through recognition alone. By examining actual kanji production, infrequent or avoided characters, production difficulties, and learners' perceptions within *sakubun*, this study highlights productive accessibility as an important dimension of beginner-level kanji competence. Further research could examine this development across larger and more diverse learner groups, multiple writing topics, and longer periods of instruction.

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INFORMED CONSENT STATEMENT

Participation in this study was entirely voluntary. Before participating, the participants were informed about the purpose, procedures, and scope of the study, including classroom observation, completion of a questionnaire, and analysis of their *sakubun* writing. They were informed that the study focused on their use of kanji in Japanese writing and that their participation would not affect their academic grades or standing. Participants were also informed that their personal identities and individual responses would be kept confidential and that the data collected would be used solely for research purposes. They had the right to decline participation or withdraw from the study at any time without penalty or negative consequences. By agreeing to participate, the participants provided informed consent for their relevant data to be collected, analyzed, and reported in an anonymized form for academic research purposes.

DATA AVAILABILITY STATEMENT

The data supporting the findings of this study are not publicly available because they contain information derived from individual participants and are subject to confidentiality and ethical considerations. Anonymized data may be made available by the corresponding author upon reasonable request, subject to appropriate ethical and privacy considerations.

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DECLARATION OF AI USE

The authors declare that generative artificial intelligence (AI) tools were used during the preparation of this manuscript to assist with language editing, grammar checking, clarity, and readability. AI tools were not used to generate research data, conduct data analysis, or determine the interpretation of the findings. The authors remain fully responsible for the accuracy, originality, interpretation, and final content of the manuscript and have carefully reviewed and verified all AI-assisted text before submission.

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