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Kansai Chapter
The Japan Association of College English Teachers

編集委員会より

JACET Kansai Journal 27 号をお届けします。本号には、6 編の投稿があり、査読を経て、研究論文 3 編が掲載されました。まずはご投稿頂きました会員の皆様に、厚く御礼申し上げます。また査読者の先生方には、心より感謝を申し上げます。短い期間での審査をお願いしているにも関わらず、丁寧で親切なコメントを頂戴し、大変ありがたく存じます。査読者のご献身は学術雑誌の根幹を成しており、そのご貢献は雑誌の質と評価の維持と向上に不可欠です。

編集委員会では、現在、世界的に潮流となりつつある、掲載論文の「即時オープンアクセス」(J-STAGE 上で) に向けて、検討を進めています。実現しますと、JACET Kansai Journal の論文が、タイムリーに、より広く読まれ、広義には、オープンサイエンスの推進に貢献することになります。

会員の皆様のご投稿意欲が高まりますことを、期待しております。

紀要編集委員会委員長　石川圭一
令和 7 年（2025 年）3 月

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Exploring Global Englishes Listening Training: Perceived Effects and Preferences Among University Students[1]

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Abstract

Speakers of various languages worldwide communicate in English, engaging not only in Native speakers' English (NE) but also in Global Englishes (GE). However, most textbooks use recordings in North American or British English. Higher education institutions are responsible for familiarizing learners with GE, enabling them to use English effectively in real-world scenarios. In this study, GE listening training was implemented in university English conversation classes. The training utilized textbook audio recorded by professional narrators from various regions of the world. At the end of the semester, students responded to a reflection survey, assessing 1) the perceived effects of GE listening on their proficiency and 2) their preference for future GE listening activities. Analyses of the 175 responses indicated that approximately half of the students appreciated GE listening. Pearson's chi-square tests were conducted to explore whether response trends varied by year group and CEFR level group. The results revealed that 1) second-year students found GE listening more helpful and 2) the higher CEFR group preferred continuing GE listening. Concerning the above responses, reasons favoring GE listening included awareness of varieties other than NE, needs for GE communication, interest in characteristics of GE, and curiosity towards unknown regions of the world.

Keywords: global Englishes, listening training, perceived effects, preferences

1. Introduction

The well-established practice of listening to audio recordings of people speaking the target language is ingrained into EFL (English as a Foreign Language) classrooms to the extent that it has come to be seen as an unquestionable element of learning the language. In the majority of cases, voices are provided by speakers from countries where English is spoken as the main language, in particular the USA as well as the UK. However, the concept of native speakerism (Phillipson, 1992) acknowledges that preferences given to speakers of English from such largely monolingual countries do not accurately reflect the diverse landscape in which English is used.

1.1 Global Englishes

This paper will refer to both World Englishes (WE) and Global Englishes (GE), two related concepts with a clear distinction, an initial explanation of which will clarify some of the research to be presented here. The former has been heavily influenced by the work of Kachru (1985) and emphasizes the pluralistic nature of English (Sadeghpour & D'Angelo, 2022), based on a dichotomy which contrasts native with non-native speakers (Oda, 2022). Meanwhile, GE has emerged in more recent years through the work of scholars including Jenkins (2011). Wider in scope than WE, GE acknowledges issues including globalization, linguistic imperialism, education, language policy, and planning (Galloway & Rose, 2015), with complex interactions between native and non-native varieties of the language. Despite the wider-ranging scope of GE, this paper will refer to both paradigms, acknowledging that studies influencing the current one originate in both.

Kachru (1985) introduced three circles of English, indicating that the majority of English speakers could be found in regions referred to as the expanding circle, where English is not commonly used as a means of communication, including Japan. The expanding circle is contrasted with the outer circle, where English is used as a lingua franca between speakers of various languages (such as in India), and the inner circle (such as the USA, UK or Australia), where English is the first language (L1) of the majority of speakers. It was later predicted that the balance between the three circles would shift in the early 21st century, to approximately 750 million speakers of English in the expanding circle, and around 375 million in both the outer and inner circles, representing a swelling in the outer circle in particular (Crystal, 1997).

The extent to which this prediction has come to be realized is unclear, and researchers have acknowledged the complex and diverse nature of communities of speakers, indicating that the labeling of three distinct circles is somewhat problematic, overlooking heterogeneity within communities and reinforcing the inequalities which it was aimed at breaking down (Park & Wee, 2009). Published in the World Economic Forum, Breene's (2019) study indexes countries according to the extent to which users of English there are able to use the four skills of English, assigning scores and ascribing a proficiency scale from "very high" to "very low." Japan is scored at 51.69, which equates to somewhere between a moderate and a low, and below the average for Asian countries. This is in contrast with countries like the Philippines, Malaysia, and Singapore, all of which have over 60%, (the last of which is placed sixth in the world, although inner-circle countries are not included). While this recognition of complexity can be more useful than determining three distinct groups, the act of reducing one nation's often very complex make-up of English language learning down to one number is not particularly informative and fails to deal with issues of heterogeneity.

However, at a macro level, it can be a useful mechanic to demonstrate to learners of a language the extent to which they can expect to be able to use English as a communication tool with speakers from across the globe.

Although the internet is lessening the importance of physical location and online encounters can take place with those of any nationality, geographical factors do determine that countries do a great deal of business with neighbors, such as those within the EU or ASEAN trading blocs. Despite this, it is far from uncommon for English Language Learners (ELLs) to express an interest in learning L1 (native) accents. Interviews with those in Indonesia, for example, indicated the prestigious values which they associated with L1 varieties (Yuwita & Ambarwati, 2023). In a study which sought to uncover the barriers to the learning of varieties of English used outside of L1 countries, Galloway and Rose (2015) identified four issues. These included a lack of materials promoting global approaches, a strong adherence to the application of standards used throughout the TESOL community, traditional values common to teacher education, and hiring practices that favor L1 speakers. In other words, cultural practices employed within the industry prevent GE voices from being heard. Since many of these practices may be heavily ingrained, a breaking down of barriers to grant access to GE speakers within the English language teaching community appears to be currently out of reach.

To combat these issues, Global Englishes Language Teaching (GELT) details the following six proposals related to ELF (English as a Lingua Franca) and ELT (English Language Teaching) (Rose et al., 2021, p.159).

1. Increasing World Englishes and ELF exposure in language curricula
2. Emphasizing respect for multilingualism in ELT
3. Raising awareness of Global Englishes in ELT
4. Raising awareness of ELF strategies in language curricula
5. Emphasizing respect for diverse culture and identity in ELT
6. Changing English teacher-hiring practices in the ELT industry

While the above appear to represent a significant number of deep-rooted cultural changes, the goal of creating an accessible environment for all offers a strong appeal for the credibility of the industry. Fostering a culture of listeners who are tolerant towards GE accents may be seen as an ultimate aim of moves such as GELT. This is a form of social justice (Rubin, 2012). Under traditional models, speakers of GE have been disadvantaged by the overlooking of their own linguistic profile by educators, including those whose responsibility is to train language learners in EFL regions. In order to reduce the gap between the

knowledge gained through research into GE and practices applied in institutions, communication of the purpose of the GELT proposals is crucial.

1.2 Non-Native Accents in English Textbooks

Previous studies show that publishers of textbooks used in EFL have been slow to incorporate GE speakers. While the use of a variety of accents has long been advocated as a means through which learners of English can become accustomed to listening to authentic accents, many textbooks rely almost entirely on speakers with North American or British accents. A study by Naji Meidani and Pishghadam (2013) of four EFL course books, distributed globally by major publishing companies, found that two of them used only inner-circle voices, despite featuring as many as 80 different speakers. The biggest outlier was *Top Notch 3* (Saslow & Archer, 2006), with 18 non-native speakers, although this represented just 17.48% of the speakers in the book. Sugimoto and Uchida's study (2016) noted little progress towards diversity. In their study of six textbooks used in junior high schools in Japan, textbook images depicted 24 speakers apparently from inner-circle countries, half of them from the USA, as well as four from outer-circle countries and 22 from the expanding circle (including 17 Japanese). However, audio recordings of these 50 speakers used within the textbook revealed that all of them used North American (46), British (3) or Australian (1) accents. Textbooks used in Vietnam also appear to advocate native-speakerism, with very few references made to multilingualism (Nguyen et al., 2021).

However, there are some signs that an understanding of GE is being achieved in some cases. In Thailand, materials have been produced for students in upper-secondary schools which aim to raise awareness (Passakornkarn & Vibulphol, 2020). In higher education in Japan, a small number of textbooks which feature GE are available (e.g. Graham-Marr, 2018), and we have also produced a series of textbooks which aim to introduce a variety of accents to learners of English at university (Nakanishi et al., 2023). ELLs will encounter a much greater variety of English accents in the real world than they encounter in traditional textbooks, and it is the responsibility of materials producers to provide them with authentic listening exercises which better reflect the real world. While improvements towards this end can be identified, this is far from universal.

At the same time, consideration should be given to how positively learners themselves accept GE. It is up to them to decide what English variety they will speak, but they cannot choose the variety when they are in the position of listeners. Since the number of non-native English speakers in the world is obviously far greater than that of native English speakers (Crystal, 1997), it is likely that in the real world they will deal with speakers with GE accents, but it is questionable how well-prepared they are for this purpose.

1.3 Research Questions

In order to assess the impact on learners of introducing GE to the English language classroom, the following research questions were posed:

RQ 1) Which listening training do learners find more useful for their proficiency, native speakers' English variety only, or including Global Englishes varieties?
RQ 2) Which listening training do learners prefer going forward, native speakers' English variety only, or including Global Englishes varieties?
RQ 3) What factors lead learners to prefer certain English varieties as material for listening training?

The formulation of RQ1 was inspired by our observations over several years of listening to students returning from study-abroad programs. These third-year returnees frequently reported difficulties in understanding classmates and host families who spoke diverse varieties of English. Using these students' struggles as teaching examples, instructors introduced first- and second-year students to the potential benefits of becoming familiar with a diversity of English accents. However, a key question remained: could students anticipate the value of such training prior to experiencing real-world interactions in GE contexts? In essence, RQ1 seeks to determine whether students perceive the effectiveness of listening training involving unfamiliar English accents before encountering them in practical situations. There was concern that students with no prior difficulties in understanding GE accents might struggle to envision the value of such training.

RQ2, in contrast, focused on students' preferences for their future learning. This question aimed to assess if students—even in Japan, where opportunities to struggle with GE listening are limited—would be motivated to undertake GE listening training for their own development. A specific concern was whether students who already found it challenging to comprehend native speakers' English (NE) varieties would lack the motivation to attempt GE listening.

While students may select GE as beneficial in RQ1, they are unlikely to fully realize its advantages until they experience interactions with GE speakers in real-world contexts. Meanwhile, regarding RQ2, understanding students' preferences and motivations can aid instructors in designing future lessons. To further explore these preferences in consideration of RQ3, students were asked to explain their choices of particular varieties through free-form responses.

This study examines trends in responses to these questions across groups categorized by students' years of English conversation studies and their CEFR levels.

2. Methodology

2.1 Participants and Materials

The participants in the study were 175 first- and second-year students (first-year n = 101, second-year n = 74) enrolled in English conversation classes at a university in the Kansai region. Measured by the Versant Speaking Test (Pearson Education, 2022), the English speaking proficiency of 94% of these students was in the A1 to A2 CEFR range (A1 or below n = 89, A2 or above n = 86). They were preparing for a mandatory four-month language training program in any one of a few English-speaking countries in their third year. Since they would be in ESL (English as a Second Language) classes at their study-abroad destinations, there is a high possibility that all of their classmates would be non-native speakers of English. Therefore, it was necessary to raise the students' awareness of the importance of being able to listen to a variety of non-native English accents before their departure.

Table 1 shows the countries of origin for each speaker who featured in the English conversation class materials (Nakanishi et al., 2023). The speakers were selected to represent all the major continents, considering factors such as whether English is an official language and the volume of travel between those countries and Japan. The voices of the main characters in the textbook—Japanese university students—were recorded by a female and a male narrator with US accents. This choice reflected the users' limited need to practice listening to Japanese-accented English, as they were already familiar with it. Additionally, as mentioned in the introduction section, North American accents remain the most common in English textbooks (Sugimoto & Uchida, 2016). To introduce variety, different narrators were used for the US English speakers in Units 1 and 2.

To scaffold students' exposure to various accents, the textbook gradually progressed from inner-circle varieties (the USA, the UK, Ireland, and New Zealand) up to Unit 5, and introduced Singaporean English in Unit 6. These varieties were consistent across Books 1 and 2, which were used for first- and second-year students, respectively. When presenting tasks based on these materials, emphasis was placed on listening comprehension rather than imitation. Students were encouraged to practice listening and were explicitly instructed that imitating the speaker's accent was not necessary.

Table 1

Speakers Introduced in the Materials

Unit	Speaker's Origin	Topics	
		Book 1 (First-year)	Book 2 (Second-year)
1	the USA – Japan	College Life	Academic Research
2	Japan – the USA	Understanding Copyright	Social Issues in Japan
3	the UK – Japan	Cyberbullying	Personal Safety
4	Japan – Ireland	Tourism	Gender
5	New Zealand – Japan	Foreign Encounters	Religion
6	Japan – Singapore	Entertainment	Business
7	India – Japan	International Affairs	Career
8	Japan – Russia	Technology	Japanese Culture
9	Brazil – Japan	My Future	Law and Peace
10	Japan – China	Personal Finance	Ethnicity
11	Egypt – Japan	Health	Science and Scientists
12	Japan – Rwanda	Diversity	Styles of Writing

Note. Speaker information in each unit is listed in the order of female to male.

The English conversation classes were conducted twice a week (Thursday and Friday) by four bilingual instructors fluent in English and Japanese. The students in each year group were randomly divided into five classes (20–25 students in each class on average), ensuring that each student was taught by two different instructors across the two days. Both Thursday and Friday class procedures were designed as consecutive steps in the syllabi, which followed a flipped learning method (Lee & Wallace, 2018).

Students were required to familiarize themselves with the topics introduced in each unit before attending class by completing various tasks, such as answering listening comprehension questions, filling in blanks in the textbook, writing and editing presentation manuscripts, checking pronunciation using customized ASR (Automatic Speech Recognition) software (Nakanishi, 2019), and recording shadowing and reading-aloud activities (Nakanishi et al., 2022). These homework assignments were uploaded to an LMS (Learning Management System), and students submitted their audio and document files online by the morning of each class.

The main objectives of the classroom activities were presentations on Thursday and interactions on Friday. All classroom instructions were delivered in English. For complex activities, written instructions were provided in Japanese on the LMS to ensure clarity for students who might require support in their native language.

The survey for this study was conducted at the end of the spring semester of 2023, after students had completed Unit 6. At this point, for first-year students, Singaporean English was the only non-inner-circle variety they had encountered

in Book 1. In contrast, second-year students had completed all 12 units from the first-year material and up to Unit 6 in their second year. Consequently, first-year students were likely to have less exposure to GE varieties than second-year students, who had undergone a year and a half of listening training with diverse English accents.

2.2 Questionnaire

Before taking the questionnaire survey, all students looked at the table of contents of their textbooks (Table 1) to review the speakers and topics covered in Units 1–6 that they had studied in the spring semester. Also in preparation for the next semester, they checked the countries and content to be covered in Units 7–12. After confirming that each student understood the classification of inner-circle, outer-circle, and expanding-circle varieties, the questionnaire survey was conducted online. Students were informed that their responses would not affect their grades. Out of 235 students, 175 of them (74.2%) agreed and submitted written consent that the survey results would be made public for future course management and research purposes, under the condition that their personal information would not be identified. The questions and answer options were presented to students in Japanese, of which English translations are shown in Table 2.

Table 2

Questions and Answer Options

Question	Answer Options
1) Which listening training helped you improve your oral proficiency? (Multiple answers allowed.)	□ Inner-circle variety □ Outer-circle variety □ Expanding-circle variety
2) Which listening training would you like to work on in the fall semester? (Multiple answers allowed.)	□ Inner-circle variety □ Outer-circle variety □ Expanding-circle variety
3) Explain the reason for the above answer in as much detail as possible.	Free text answer

2.3 Procedure

When compiling responses to questions 1 and 2, learners who selected only “inner-circle variety” were classified into the “NE (Native Speakers’ English) preference group,” and those who selected any from “outer-circle variety” and/or “expanding-circle variety” were classified into the “GE (Global Englishes) preference group.” Further, regarding perceived effects (RQ1) and preference (RQ2) respectively, Pearson chi-square tests were conducted to examine whether there were biases between learner groups based on year of study and CEFR level.

For question 3, participants were allowed to write in their native language if necessary so that they could freely express any complex feelings. Responses submitted in Japanese were converted to English by automatic translation (Google Translate) to avoid arbitrary interpretation, and co-occurrence analyses were performed for the NE and GE preference groups, using KH Coder version 03 (Higuchi, 2022). After breaking down the text into words, the top 60 words with the highest frequency of occurrence were used for analysis. Further investigation was conducted into the context in which characteristic words appeared in the co-occurrence network. The original text was confirmed using KWIC Concordance, and keywords and phrases were added to each bubble group.

3. Results

3.1 Perceived Effects of NE/GE Listening Training

Overall, 78 students chose NE and 97 chose GE. Table 3 shows the number of first- and second-year students regarding the perceived effectiveness of training materials in improving their oral proficiency (RQ1). The results of the Pearson chi-square test showed that the responses that the NE listening training was effective were relatively higher in the first-year group, and the GE listening training in the second-year group ($\chi^2(1) = 6.04$, $p = .014$*, $\phi = .19$).

Table 3

Perceived Effects of NE/GE Listening Training by Year Group

Group	First-year	Second-year	Total
NE	53 (45.0)	25 (33.0)	78
GE	48 (56.0)	49 (41.0)	97
Total	101	74	175

Note. The numbers in parentheses indicate expected frequencies.

On the other hand, when the above responses were counted for each group based on the CEFR level (Table 4), no significant bias was found between the groups ($\chi^2(1) = 0.16$, $p = .685$, $\phi = .03$).

Table 4

Perceived Effects of NE/GE Listening Training by CEFR Group

Group	A1 or below	A2 or above	Total
NE	41 (39.7)	37 (38.3)	78
GE	48 (49.3)	49 (47.7)	97
Total	89	86	175

Note. The numbers in parentheses indicate expected frequencies.

3.2 Preferred NE/GE Listening Training

Overall, the preferences were split almost evenly (NE n = 87, GE n = 88). Illustrated in Table 5 are the first- and second-year students' responses to the question regarding their preference for the English varieties in their future listening training (RQ2). The Pearson chi-square test showed no significant bias in the response trends between first- and second-year students ($\chi^2(1) = 0.30$, $p = .584$, $\phi = .04$).

Table 5

Preferred NE/GE Listening Training by Year Group

Group	First-year	Second-year	Total
NE	52 (50.2)	35 (36.8)	87
GE	49 (50.8)	39 (37.2)	88
Total	101	74	175

Note. The numbers in parentheses indicate expected frequencies.

As shown in Table 6, when the above responses were divided into groups based on CEFR level, students with lower CEFR levels (A1 or below) were more likely to choose NE training, while students with higher CEFR levels (A2 or above) were more likely to choose GE training ($\chi^2(1) = 4.17$, $p = .041$*, $\phi = .15$).

Table 6

Preferred NE/GE Listening Training by CEFR Group

Group	A1 or below	A2 or above	Total
NE	51 (44.2)	36 (42.8)	87
GE	38 (44.8)	50 (43.2)	88
Total	89	86	175

Note. The numbers in parentheses indicate expected frequencies.

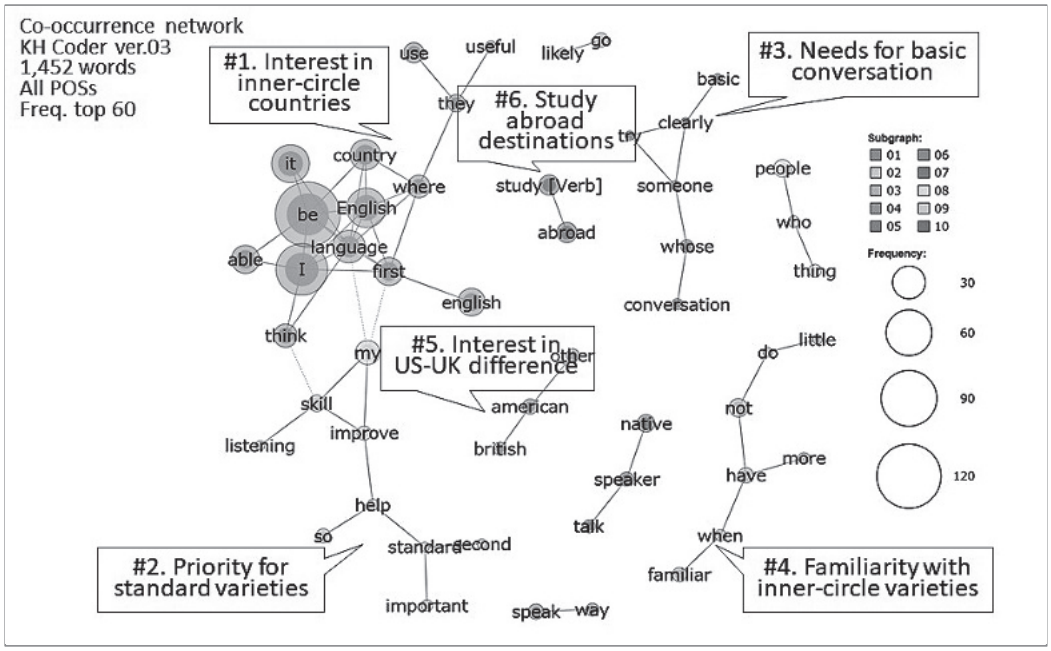
3.3 Reasons for Future NE/GE Training Preference

3.3.1 Preference for NE

Figure 1 shows the co-occurrence network created based on the responses related to RQ3 by students who selected NE (1,452 tokens, 259 types in 84 sentences).

Figure 1

Reasons for NE Listening Preference (n = 87)



The largest bubble group (#1) includes words such as “English,” “first language,” and “country,” indicating students’ interest in inner-circle countries. For example, one student commented, “I am most likely to interact with people from countries where English is their first language, so I would like to focus on conversations with them” (First-year, CEFR A1).

The second-largest bubble group (#2) reflects students’ preference for prioritizing listening practice in standard varieties. This preference is supported by statements such as, “I thought it would be great if I could listen to more native speakers’ English and get my pronunciation closer to that of a native speaker” (Second-year, CEFR A1).

The third group (#3) highlights the need to develop basic conversational skills, as shown by responses such as, “I want to enjoy conversations with native speakers without getting stuck... and at least learn how to communicate with them” (Second-year, CEFR B1).

The fourth bubble group (#4) suggests a sense of comfort with familiar English varieties, exemplified in comments like, “I want to get more familiar with American and British English” (First-year, CEFR A1).

The fifth bubble group (#5) reveals an interest in exploring differences between North American and British English. For instance, one student stated,

“I'm very interested in the differences between American English and British English” (Second-year, CEFR A2+).

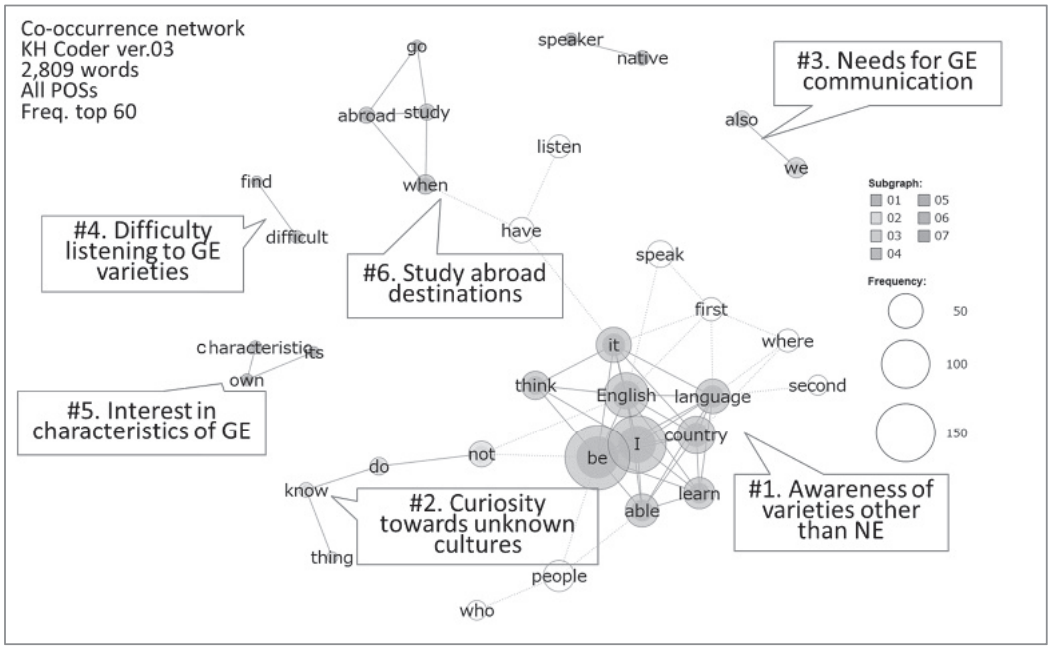
Furthermore, some students also mentioned their study-abroad destinations as influencing their choice. For example, a student remarked, “Since the country I am going to study abroad in is Canada, and English is the first language in Canada, I chose Units 1–5” (First-year, CEFR A1).

3.3.2 Preference for GE

Figure 2 presents the co-occurrence network created from responses related to RQ3 by students who selected GE. This group provided more detailed explanations (2,809 tokens, 372 types in 117 sentences) compared to the NE preference group.

Figure 2

Reasons for GE Listening Preference (n = 88)



Similar to Figure 1, the largest bubble group (#1) revolves around the English language spoken in each country. However, in this group, the node connecting “first” also includes “second,” suggesting an awareness of people who speak English as a second language. For example, one student commented, “Through this class, I learned that there are countries where English can be both a first as well as a second language. And I can realize something different” (Second-year, CEFR A2, comment edited for clarity).

The second bubble group (#2), connected to the first through the word "not," includes words like "know," reflecting students' curiosity about unfamiliar cultures. A representative comment was, "Egypt and Rwanda were completely unfamiliar to me, and I didn't know their culture, so I learned a lot" (Second-year, A2).

The third bubble group (#3) highlights the importance of communication with non-L1 speakers, as seen in responses like, "This will also help me practice listening to the pronunciation of people who speak English as a foreign language, just like us. The topics covered are related to society, so I will be able to learn about them in a way that is relevant to me, and it will be a very fruitful class" (First-year, CEFR A1).

Interestingly, the word "difficult" appears in the fourth bubble group (#4). Many students acknowledged that understanding GE accents could be challenging but viewed it as beneficial. One student noted, "I thought that learning English with an accent, which is more difficult for us to understand than native English, would be more useful when communicating with people around the world" (First-year, CEFR A2).

The fifth bubble group (#5) features the word "characteristics," reflecting students' interest in the unique features of GE. For example, one student explained, "I believe that it is very difficult to get used to all the English languages around the world, which have various characteristics, but I thought that by knowing even a little bit about the characteristics, I could make communication a little smoother" (Second-year, CEFR A2+).

The final bubble group (#6) relates to study abroad, similar to the NE group. However, students who preferred GE emphasized communication with peers, not just L1 speakers. For instance, one student remarked, "Most of the recent international students and foreigners you are likely to meet at your study-abroad destination are from countries where English is considered a foreign language" (Second-year, CEFR A2).

4. Discussion

In this study, university students' perceived effects and preference for GE listening training were found to vary among those in different year groups and English-speaking proficiency groups. Both groups' choices appeared to be influenced by their perceptions of their English proficiency and anticipated future experiences.

4.1 Perceived Effects of NE/GE Listening Training

Across year and CEFR groups, 55.4% of students (97 out of 175) reported that they found GE listening training useful. Although students in both years had

not yet encountered GE in the real world, the second-year students were more likely to see the benefits of GE listening training than the first-year students (RQ1, Table 3).

At the time of the survey, the only GE that the first-year students had been exposed to was Singaporean English, so it is understandable that not many of them were able to realize the effects of GE listening training. On the other hand, since the second-year students had experienced listening to GE in Units 6 to 12 of Book 1 in the previous year, it was likely that they could imagine what kind of accents would be covered in the same units in Book 2. This suggests that the materials used in this study helped students recognize the different varieties of English used in the real world and realize the effectiveness of GE listening training.

Acknowledging that the second-year students had worked earlier on the same listening tasks as the first-years in this study, there may be some initial resistance to the idea of GE training. Despite this, attitudes did not fossilize and students grew accustomed to GE, developing positive feelings towards it through exposure. However, the two year groups are distinct and conflicting factors behind the differences in expressed preferences cannot be discounted. Conducting the same questionnaire on the first-year students involved in the current study after they become second years would facilitate an investigation into the longer-term effects of GE training.

4.2 Preferred NE/GE Listening Training

Despite the overall low English proficiency, the GE listening training was well received by approximately half of the students (88 out of 175). The results of RQ2 (Table 6) suggest that students with a certain level of proficiency (in this case, CEFR A2 or higher as opposed to A1 or lower) were more likely to express a preference for studying GE rather than concentrating on NE.

According to the Council of Europe (2001), the phonological competence of CEFR A1 learners is described as follows: “Pronunciation of a very limited repertoire of learnt words and phrases can be understood with some effort by native speakers used to dealing with speakers of his/her language group” (p. 117). Although the CEFR A2 group in this study was considered a relatively “high” proficiency group, on the actual scale they are still at the beginner level. The phonological competence of CEFR A2 learners is described as follows: “Pronunciation is generally clear enough to be understood despite a noticeable foreign accent, but conversational partners will need to ask for repetition from time to time” (Council of Europe, 2001, p. 117). These descriptions focus on learners’ speech production, but they are also expected to have considerable difficulty in speech perception unless their interlocutors are “native speakers used

to dealing with speakers of his/her language group." It is also indicated that "a noticeable foreign accent" can be a factor to hinder their speech perception. In other words, even though most of the participants in this study were not yet at a level where they could understand non-standard speech, there was a certain number of learners who wanted to try GE listening in the following semester.

For learners with CEFR A1 or lower, the priority may be to develop fundamental English listening and comprehension skills before considering the accents used by the speakers. Since learners at CEFR A2 level, despite their low English proficiency, tended to receive GE accent listening practice more favorably than the A1 group, it is expected that this will be even stronger for learners at more sufficient proficiency levels than CEFR A1 and A2.

4.3 Reasons for Future NE/GE Training Preference

Regarding RQ3, the results of the co-occurrence network analyses revealed distinct differences in focus between the NE and GE preference groups. Table 7 summarizes the findings presented in Figures 1 and 2.

Table 7

Summary of Reasons for NE/GE Preference

#	Reasons for NE preference	Reasons for GE preference
1.	Interest in inner-circle countries	Awareness of varieties other than NE
2.	Priority for standard varieties	Curiosity towards the unknown accents
3.	Needs for basic conversation	Needs for GE communication
4.	Familiarity with inner-circle varieties	Difficulty listening to GE
5.	Interest in US-UK accent differences	Interest in characteristics of GE
6.	Study abroad destinations	Study abroad destinations

First, students who preferred NE listening training primarily associated English with the standards of inner-circle countries. These students viewed the varieties spoken by native English speakers, with which they were already familiar, as advantageous for basic conversational skills. Their specific interest in differences between US and UK accents likely reflects the prominence of these varieties in the learning materials they have been exposed to. This is further supported by responses to RQ1, where first-year students—who had fewer opportunities to engage with GE—more frequently identified NE listening training as effective.

Second, students who preferred GE listening training conceptualized English as a global lingua franca. They recognized the significance of varieties beyond NE and expressed curiosity about unfamiliar accents and cultures. These students also acknowledged the inherent difficulty of GE communication, viewing

it as both a challenge and an opportunity for personal and linguistic growth. Those with a greater awareness of linguistic diversity and an ability to envision real-world communication scenarios appeared more inclined toward GE listening. Responses to RQ2 corroborate this, as students at the CEFR A2 level demonstrated a stronger preference for GE listening than those at the A1 level, suggesting that greater proficiency may foster a broader interest in linguistic diversity.

Despite these differences, there were notable commonalities between the NE and GE preference groups. To provide an example, study abroad destinations were given as a reason for preference of both NE and GE varieties. While the course to which they belong sees all participants in the current study spend one semester studying abroad in an inner-circle country, students preferring NE varieties may assume that many of their encounters while overseas will involve NE varieties of English. Students interested in a study abroad semester in the USA may prefer to focus on English spoken in the USA, while those wanting to go to the UK would look to learn British English. On the other hand, students are also aware to some extent of the diverse nature of many of the societies in which they will go on to study. Host families, teachers and people they encounter in the local area may speak varieties of GE that students have never heard before, providing them with a need to listen to these. Even more significantly, classmates in study abroad classes who take classes in English aimed at CEFR A1 to A2 students almost certainly do not speak NE, and are much more likely to speak with varieties of GE with which participants in this study have had very little contact. While many students may perceive the need to learn both NE and GE in order to enhance their study abroad experiences, each group displayed different emphases of the two varieties.

4.4 Limitations and Future Directions

Although there was sufficient evidence gathered in this study to answer the research questions, there are some limiting factors which suggest future directions for work in this area.

First, 94% of the participants are classified as A1 or A2 level, therefore at the bottom of the CEFR scale. It has been found that lower proficiency learners are more reliant on non-verbal cues (Gregersen, 2023). However, many of these, such as gestures or facial expressions, are not transmitted in exclusively audio listening tasks. In future, we would like to investigate the perceived effects and preferences of students with English proficiency higher than CEFR A2.

Furthermore, participants were asked which variety they thought had helped them. In order to validate their claims, we would like to confirm, with reference to test scores, whether or not an improvement is observed through test scores.

Another factor affecting listening comprehension is the intelligibility of the individual speaker. This is not only determined by accent; indeed, features such as background noise, proximity to the listener's own linguistic background and the inclusion of repetition (Levis & Silpachai, 2022) are said to be among the many factors affecting intelligibility. In the current study, only one speaker was used to represent speakers from each non-inner-circle country (other than Japan). Therefore, we would like to provide learners with the opportunity to practice listening to the accents of more speakers, while measuring the effects of doing so.

5. Conclusion

In line with key recommendations for the expansion of GE in EFL classrooms made by Rose et al. (2021), this study has provided tentative support for the inclusion of GE training among university students in Japan. However, a relationship was discovered between the year of study and the perceived effects of listening to GE accents. Furthermore, students with higher English proficiency were found to be more likely to wish to include GE in their future listening training. Their reasons for GE preference indicate that, despite the apparent lack of focus on GE listening in the early stages of English learning in Japan (Sugimoto & Uchida, 2016), students with sufficient exposure to GE, or those who already have a basic knowledge of English, can develop positive attitudes towards the learning of GE as part of a program of learning English. For this reason, teaching faculty need to consider exposing their learners to a variety of English accents, thereby playing a part in the delivery of social justice to speakers of English from a variety of backgrounds (Rubin, 2012). This knowledge leads us to two recommendations.

First, it is important for teachers to consider the accent of the speaker when selecting listening exercises for their students. This adds to several factors likely to be important in selecting materials, including content as well as comprehensibility of the speaker, but the case for including a variety of accents is strong. By doing so, learners are more likely to find themselves equipped with the ability to communicate with speakers of various linguistic backgrounds. While teachers cannot be sure of which English-speaking environments their students are likely to find themselves in, by offering them opportunities to interact with a diverse group learners will become better able to function in a number of different linguistic communities. Alongside this is an opportunity for students to learn about the wider world. By presenting audio learning materials recorded by speakers with a variety of accents, teachers and materials developers will have an opportunity to include content that teaches students something about the region to which speakers belong. For example, Nakanishi et al. (2023)

includes a speaker from Rwanda, an expanding-circle country (Kachru, 1985), who not only speaks with an authentic accent but also discusses issues affecting his country. Students are therefore able to gain some sense of what it is like to live in a distant country of which they may have hardly any knowledge whatsoever.

The second recommendation relates more specifically to the publishers of learning materials. Textbooks inevitably make use of buzzwords in their marketing tools. While a small number of texts already boost their credentials in the field of GE/WE (such as Graham-Marr, 2018), an expansion of this notion would make a clear signal to educators and students alike of the significance of listening to a variety of accents. Given the number of papers already published which discuss the virtues of teaching about GE, such moves by publishers would help to carry the arguments further into the industry.

Although there has been a long held recognition of the need to include diverse voices in the EFL classroom, so-called native accents have remained the norm (Phillipson, 1992). However, data collected in the current study indicates that, with training, students can understand the benefits of learning English through speakers from a larger variety of backgrounds than they have been accustomed to. The participants of this study were learners who plan to study abroad within the next two years. Meanwhile, even those who do not plan to travel abroad are also likely to come into contact with non-native English speakers in their daily lives, through interactions with travelers to Japan from overseas, or through online meetings at their future workplace. It is necessary to provide learners with appropriate opportunities to become accustomed to GE/WE accents, depending on their level of motivation. Without efforts from educators, North American and British English may continue to dominate learning, but this would not provide learners with the tolerance for multiple forms of the language that they will require. Therefore, it is essential that they are provided with increased opportunities to hear GE, cultivating an environment in which the contents of what people say can be regarded as more important than the differences in the ways that they voice them (Rubin, 2012). With the combined efforts of instructors and developers of teaching materials, communities can be fostered in which accents and dialects are seen not as a hurdle to be overcome, but as a badge of honor and part of the identity.

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Notes

1 This study was orally presented at the 63rd JACET International Convention.

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Move Analysis of Chemical Journal Research Articles: Salient Patterns of Sections and Moves/Steps

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Abstract

The purpose of this study is twofold: first, to describe the prominent section patterns in a flagship journal within the field of chemistry, and second, to uncover the discourse structure of each respective section. Based on the assumption that members of the same discourse community share common knowledge and norms, previous move analyses have primarily focused on identifying the moves and steps in the Introduction, Methods, Results, and Discussion (IMRD) sections. However, our categorization of section patterns in 100 chemical research papers revealed that the most typical section structure followed the Introduction, Methods, Results and Discussion, and Conclusion (IM[R&D]C) format. Furthermore, the two independent researchers conducted a move analysis of 11 selected articles and identified 11 distinct moves in several steps. These findings provide a foundation for developing a move corpus and extracting useful expressions to aid in the teaching of academic writing in chemistry.

Keywords: genre, move analysis, chemical research articles

1. Introduction

In academia, the phrase “publish or perish” has gained increasing prominence (Hyland, 2012, p. 58), reflecting the growing significance of publishing research articles (RAs) in English. Researchers must not only grasp the fundamental structure of a paper—the Introduction, Methods, Results, and Discussion (IMRD) sections—but also carefully consider the coherent and logical flow of their discourse. To uncover the underlying discourse structures within specific academic communities, the move analysis has been developed and applied to English teaching (Hyland, 2002). However, numerous move analyses have predominantly focused on revealing the structure of IMRD sections (Lin & Evans, 2012). Therefore, the objective of this study is to investigate the typical patterns found in chemical journal RAs, and to describe their respective moves and steps.

Section 1.1 will define the concept of moves and steps within the context of English for Specific Purposes (ESP), as well as outline the traditional methods used for a move analysis. Moreover, Section 1.2 will offer a summary of previous

studies that have conducted move analyses of the IMRD sections. In Section 1.3, the gaps in these previous studies will be discussed, and two research questions (RQs) will be proposed to address these gaps.

1.1 Genre Approaches and a Move Analysis of Research Articles

The concept of genre has evolved within the contexts of systemic functional linguistics, New Rhetoric studies, and ESP (Coffin, 2001; Hyland, 2009). In the ESP domain, the term "genre" is defined as communicative events shared by members of a discourse community—a group characterized by "a broadly agreed set of common public goals" (Swales, 1990, p. 24). The genre-based approach assumes that members in a given community share common knowledge and norms. For those who need to write RAs within a specific community, it is crucial to understand and adopt the expected flow of the discourse. This flow is manifested through "moves" and "steps." Dudley-Evans and St. John (1998) defined a "move" as "a unit that relates both to the writer's purpose and to the content that he or she wishes to communicate" (p. 89) and a "step" as "a lower-level text unit than a move that provides a detailed perspective on the options open to the writers" (p. 89).

Since Swales (1990) advocated the discourse structure of the Introduction section in RAs, referred to as the "Create a Research Space (CARS) model," researchers examine multiple RAs, categorize discourse units by identifying the linguistic characteristics of moves, and manually label these units as moves and steps (Lim, 2006) within specific sections or throughout the entire structure of RAs (Maswana et al., 2015). For example, Anthony (1999) investigated the move and step structure in the Introduction sections of software engineering 12 RAs. In contrast, Nwogu (1997) analyzed all sections of 15 clinical medical RAs and manually identified 11 distinct moves. Although Stoller and Robinson (2013) analyzed 60 chemical RAs, it is still unclear whether the IMRD structure is commonly employed in the field of chemistry. Therefore, this study will clarify the typical section pattern in chemical journal RAs and conduct a qualitative move analysis with a focus on the linguistic characteristics of the moves and steps within these articles, thereby contributing to the understanding of the discourse structure in this specific field.

1.2 Move Analysis in English for Specific Purposes

This section provides an overview of the move analyses of IMRD sections in ESP with the aim of demonstrating that the moves and steps have been labeled in various ways across different studies. By examining previous research, it is evident that the specific terminology and categorization of moves and steps vary significantly.

1.2.1 Move Analysis of Introduction Section

The Introduction section plays a critical role in capturing the attention of readers, particularly peer reviewers and researchers (Lim, 2012). Table 1 outlines the functions of moves and steps in the Introduction sections of the RAs, as proposed by Swales (1990) and Nwogu (1997). Following these foundational frameworks, numerous studies have identified the presence of three moves across various fields, although some variations in these steps have been suggested.

Table 1

Examples of Moves and Steps in the Introduction Section advocated by Swales (1990) and Nwogu (1997)

Swales (1990, p.141)	Nwogu (1997, p.135)
Move 1 Establishing a territory Step 1 Claiming centrality and/or Step 2 Making topic generalization(s) and/or Step 3 Reviewing items of previous research	Move 1: Presenting Background Information: (1) Reference to established knowledge in the field. (2) Reference to main research problems.
Move 2 Establishing a niche Step 1A Counter-claiming or Step 1B Indicating a gap or Step 1C Question-raising or Step 1D Continuing a tradition	Move 2: Reviewing Related Research: (1) Reference to previous research. (2) Reference to limitations of previous research.
Move 3 Occupying the niche Step 1A Outlining purposes or Step 1B Announcing present research Step 2 Announcing principal findings Step 3 Indicating RA structure	Move 3: Presenting New Research: (1) Reference to research purpose. (2) Reference to main research procedure.

Table 1 clearly demonstrates that Move 3, which is referred to as different labels, specifies what was accomplished in the research, whereas the boundary between Moves 1 and 2 is different. Despite this distinction, these two studies have significantly influenced the move analyses in the Introduction section. Although Swales (2004) modified the moves and steps of the original model in Table 1, the same or similar labels of moves advocated by Swales (1990) have been widely applied in the analyses of Introduction sections across various disciplines; for example, software engineering (Anthony, 1999), biochemistry (Kanoksilapatham, 2005), psychology (Loi, 2010), civil engineering (Kanoksilapatham, 2011), agricultural sciences (Milagros del Saz Rubio, 2011), chemistry (Stoller & Robinson, 2013), applied linguistics (Shi & Wannaruk, 2014), and social science (Lu et al., 2018). Additionally, recent studies have

extended the analysis of common moves and steps across multiple disciplines, covering 13 disciplines (Cortes, 2013) and 30 disciplines (Cotos et al., 2015). Although these studies have employed similar move labels, they have also introduced additional or modified steps.

Similarly, the same moves and steps proposed by Nwogu (1997) have been utilized to describe the discourse structures in other fields, such as engineering (Maswana et al., 2015), clinical medicine (Kawamoto & Ishii, 2018), and biomedicine (Kawamoto & Ishii, 2022). These studies have maintained consistent labels for moves and steps.

In this study, in an effort to minimize the introduction of novel moves and steps, following Kawamoto & Ishii (2018, 2022), we adopt the three-move framework identified by Nwogu (1997) to segment the text in the Introduction section of chemical journal RAs.

1.2.2 Move Analysis of Other Sections

As discussed in Section 1.2.1, although the Introduction section has consistently been recognized as containing three primary moves, several steps have been modified across numerous previous studies. This section provides an overview of the move analysis in the remaining sections: Methods, Results, and Discussion. By examining these three sections, we will explore how moves have been categorized and labeled differently.

The Methods section should not only engage professional readers but also demonstrate the suitability of the research design (Lim, 2006). Due to the considerable variation in research procedures, the move structure of this section differs across specific genres, typically ranging from three to five moves. For example, management research follows a four-move pattern (Lim, 2006), whereas biochemistry incorporates four moves, two of which are optional (Kanoksilapatham, 2005). In chemistry, the structure involves three moves, with one being optional (Stoller & Robinson, 2013). Agricultural science employs a five-move framework (Shi & Wannaruk, 2014), engineering follows a three-move structure (Maswana et al., 2015), and biomedical engineering typically uses four moves (Musa et al., 2015). Moreover, Cotos et al. (2015) defined common three moves across 30 different disciplines.

In the Results section, where figures and tables are often provided, it is crucial for writers to convey their understanding and interpretation of the data to readers within the same discourse community (Glasman-Deal, 2010). Previous studies have identified between two and four move patterns across different genres. For example, Nwogu (1997) identified two move patterns in clinical medicine. Posteguillo (1999) outlined three moves in computer science, whereas Kanoksilapatham (2005) proposed a four-move structure for biochemistry. Stoller

and Robinson (2013) identified two moves in chemistry, while Shi and Wannaruk (2014) suggested four moves in agricultural science. In engineering, Maswana et al. (2015) described a two-move pattern, while Kanoksilapatham (2015) presented a three-move structure. Moreover, Ishii and Kawamoto (2020) compared Williams (1999), who identified three classes that can be considered moves by analyzing 36 Results sections of experimental medical RAs, with Kanoksilapatham (2007), who introduced four moves in 60 biochemical RAs. Through this comparison, they identified three moves in experimental medical RAs. Additionally, Cotos et al. (2015) identified four commonly used moves across 30 disciplines.

The Discussion section serves not only to present and explain the findings but also to highlight the significance of the research to readers within the same discourse community (Parkinson, 2011). As for the other sections, much of the move analysis work related to the Discussion section has identified the functions of the moves and steps using different labels from three to nine moves; for example, a seven-move pattern in applied linguistics (Ruiying & Allison, 2003), a four-move structure, including one optional move, in biochemistry (Kanoksilapatham, 2005), nine moves without any steps in Biomedicine (Williams, 2011), a simpler two-move pattern in chemistry (Stoller & Robinson, 2013), four moves in information systems (Kwan & Chan, 2014), and four moves in agricultural science (Shi & WannaruK, 2014). Additionally, both Kanoksilapatham (2015) and Maswana et al. (2015) identified three moves in engineering. Finally, Cotos et al. (2015) acknowledged four commonly employed moves cross 30 disciplines.

Swales (1990) noted that “the major differences do not lie so much in Introductions and Discussions (where I believe most people expect it) but rather in the Method and Results sections” (pp. 175-176). However, numerous studies have identified various moves not only in the Methods and Results sections but also in the Discussion sections. While this study conducted a move analysis of chemical journal RAs, the labeling of moves and steps was determined by adapting and modifying the frameworks established in previous research.

1.3 The Objectives of This Study

As discussed in Section 1.2, previous move analyses of RAs have identified both commonalities and differences in the moves and steps across various fields. However, apart from the move analysis in the Introduction section, which consistently identifies three moves with distinct steps, the number and labeling of moves and steps in the other sections—Methods, Results, and Discussion—varies among specific genres. To avoid the variation of labeling, Cotos et al. (2015) employed the same moves and steps across 30 disciplines. However, from the perspective of ESP, since specific genre shares the commonly used patterns

of discourse, which are different from other genres, a move analysis of a specific genre should be conducted.

Additionally, as Lin and Evans (2012) pointed out, the move analysis has predominantly focused on examining RAs with IMRD sections. They analyzed the section patterns of 433 empirical RAs from high-impact English-language journals across 39 disciplines in engineering, applied sciences, social sciences, and the humanities. Interestingly, only 12.2% of these articles followed the conventional IMRD structure as well as IMRDC formats, whose capital of C is Conclusion. Similarly, Gong and Barlow (2022) categorized 76,835 RAs from 26 disciplines within health sciences, social sciences and humanities, life sciences, and physical sciences and engineering. They identified 72 typical patterns, noting that the IMRD structure appeared in the top 10 pattern list for 21 out of the 26 disciplines, with a particularly high frequency in medical journals. These studies suggest that various section patterns exist depending on the specific genre. However, little is known about the patterns of moves and steps outside the IMRD sections. Although Stoller and Robinson (2013) conducted a move analysis of 60 chemical journal RAs, their focus was primarily on the IMRD sections. They did not clarify the salient section pattern in the chemical journal RAs.

To address this gap, we will explore the following two RQs to uncover the move patterns in the chemical journal RAs, in *the Journal of the American Chemical Society* (JACS), the leading journal in the field of chemistry.

(RQ1) What is the most commonly used pattern of sections in JACS?

(RQ2) What is the most commonly used pattern of moves and steps in JACS?

2. Methodology

2.1 Data and Procedures for RQ1

To answer RQ1, we randomly selected 100 RAs from JACS, published in 2018. Each article was manually analyzed and categorized based on its section titles and patterns. This process allowed us to identify the most commonly used section structures in the JACS RAs. It is worth noting that the journal's reputation remained high, with a Journal Impact Factor of 14.4 in 2023, underscoring its influence in the field of chemistry.

2.2 Data and Procedures for RQ2

To address RQ2, we collected a total of 11 RAs from the JACS published in 2020. As Saber (2012) emphasized, when constructing a corpus, careful consideration must be given to representation, reputation, and accessibility. To ensure the representativeness of the corpus, the publication timeframe was limited to the year 2020. The analysis for RQ2 was conducted independently of RQ1. To clarify this, we

chose the RAs published in different year from RQ1. This ensures that the data reflects current trends and practices in chemical research articles. To take into consideration the linguistic quality of English used in the articles, we limited our selection to articles in which the first author was affiliated with institutions based in English-speaking countries. This criterion was applied to maintain consistency in the use of English and academic standards across the corpus. Moreover, the RAs with a high number of citations were selected for the analysis. Lastly, access to the selected RAs was made possible through the resources available at Hiroshima University Library, ensuring that all articles were fully accessible for analysis. By adhering to these criteria, we ensured that the corpus data is both representative of high-quality chemical research and accessible for thorough move and step analyses.

After collecting the 11 selected RAs, two independent researchers conducted a move analysis of the entire set of articles by focusing on the linguistic characteristics, as described previously (Lim, 2006). One researcher is a corpus linguist with an interest in ESP, while the other is a biochemist who has utilized corpus studies to analyze the writing of RAs. In cases where there were discrepancies in identifying the boundaries of the moves, the differences were discussed in detail until a consensus was reached. Moreover, the labels of moves and steps were discussed based on the previous move analyses. The results will showcase example sentences with linguistic characteristics highlighted. This collaborative approach ensured consistency and accuracy in the identification of moves across the RAs, helped to refine the move boundaries and strengthen the reliability of the analysis.

3. Results

3.1 Commonly Used Patterns of Sections in JACS

This section addresses RQ1. First, the section titles of 100 randomly selected RAs from JACS were analyzed and categorized into six categories: Introduction (I), Methods (M), Results and Discussion ([R&D]), Results (R), Discussion (D), and Conclusion (C), as shown in Table 2. For example, although the Methods section was referred to by various labels, such as the Experimental Section, Materials and Methods, and Experimental Methods, they were all integrated into the Methods category. Several RAs contained additional sections such as Computational Methodology, Cellular Experiments, Tissue Imaging, and Theoretical Analysis. This categorization reveals that the combined Results and Discussion ([R&D]) section is more commonly used than presenting the Results and Discussion sections separately.

Table 2

Summary of Section Titles in 100 Randomly Selected RAs from JASC

Abbreviation	Number of Sections	Section Title (Frequency)
I	100	Introduction (100)
M	69	Experimental Section (54), Experimental Methods (2), Experimental Procedures (1), Methods (5), Materials and Methods (3), Materials and Experimental Methods (1), Computational Details (3), Computational Methodology (1),
[R&D]	100	Results and Discussion (97), Cellular Experiments (1), Tissue Imaging (1), Theoretical Analysis (1)
R	3	Results (3)
D	2	Discussion (2)
C	98	Conclusion (45), Conclusions (50), Concluding Remarks (2), Conclusion and Outlook (1)

Next, we examined the section patterns (Table 3). The most frequently observed pattern was the Introduction, Methods, Results and Discussion, and Conclusion (IM[R&D]C) format. The second most frequent pattern was the Introduction, Results and Discussion, and Conclusion (I[R&D]C) format. However, for all RAs using this second pattern, the Supporting Information was included to provide detailed experimental methods. In summary, although Lin and Evans (2012) analyzed the section patterns of 433 empirical RAs from high-impact English-language journals across 39 disciplines and demonstrated that IM[R&D]C and IMRD formats accounted for 15.7% and 12.2%, respectively, the IM[R&D]C format emerged as the most prominent pattern in the JACS RAs.

Table 3

Summary of Section Patterns in 100 Randomly Selected RAs from JASC

Pattern	Frequency	Example (Frequency)
IM[R&D]C	66	IM[R&D]C (35), IMM[R&D]C (1), I[R&D]CM (28), I[R&D]MC (1), I[R&D][R&D][R&D]CM (1)
I[R&D]C	29	I[R&D]C (28), I[R&D][R&D]C (1)
IM[R&D]	1	IM[R&D] (1)
I[R&D]	1	I[R&D] (1)
IMRDC	1	IMRDC (1)
IMRC	1	IMRC (1)
IRDC	1	IRDC (1)

3.2 Commonly Used Patterns of Moves and Steps in JACS

As discussed in Section 3.1, the predominant section pattern found in RAs of a leading chemical journal was IM[R&D]C. To answer RQ2, this section clarifies the function of moves and steps within each section, providing explanations alongside example sentences extracted from the 11 selected JACS RAs. To highlight the signals of each step, example sentences will be emphasized in bold.

3.2.1 Moves and Steps of Introduction Section in JACS

In the Introduction section, three moves were identified, as Nwogu (1997) defined. The three moves in the Introduction section were named IM1, IM2, and IM3, respectively: (IM1) Presenting Background Information, (IM2) Reviewing Related Research, and (IM3) Presenting New Research. Hereafter, when steps are shown in each move, a hyphen and the number of steps will be added. For example, IM1-Step (1) means that the first step of the first move in the Introduction section. Out of the 11 RAs analyzed, all were found to contain all the moves in the Introduction section.

IM1 presents the background information and encompasses two distinct steps:

IM1-Step (1): Reference to established knowledge in the field

IM1-Step (2): Reference to main research problems.

An example of IM1-Step (1) is the following sentence:

> Metallic lithium **has been considered as one of the most promising** anodes because of its high specific capacity and low electrochemical potential. (Li et al., 2020, p. 2012 [emphases added])

In this sentence, “Metallic lithium” is a key term in the research, with the bold phrase emphasizing its significance, thus highlighting established knowledge relevant to the study. The next sentence describes the function of IM1-Step (2).

> Identifying framework materials that meet all three of these criteria **is challenging**, largely because the factors influencing the conductivity and electrochemical properties of metal-organic frameworks **are still poorly understood**. (Ziebel et al., 2020, p. 2654 [emphases added])

The bold phrases highlight the main research problems, addressing the challenges and gaps in understanding the factors that influence the key properties of metal-organic frameworks. This step outlines the research problem and sets the stage for the purpose of the study.

IM2 reviews previous literature and includes two steps:

IM2-Step (1): Reference to previous research

IM2-Step (2): Reference to limitations of previous research.

An example of IM2-Step (1) is the following sentence:

> **A recent investigation has shown that** phenanthrenequinone (PQ) coordinates to bis(pentafluorophenyl)zinc $Zn(C_6F_5)_2$ and that the complex can undergo readily a reversible redox process. (Nam et al., 2020, p. 2524 [emphases added])

In this example, the word “recent” signals the introduction of previous research, and the present perfect tense, including the past participle “shown,” is typically used to reference findings from earlier studies. This highlights how prior work was cited to provide context or justification for the current research. The next sentence was defined as IM2-step (2).

> **However**, the material space of these chiral 2D hybrid semiconductors **is still rather limited**, and the generality of such chirality transfer and CISS effect **needs to be investigated** in a broader material scope. (Lu et al., 2020, p. 13031 [emphases added])

The adverb “however” is used to signal a shift to a research gap, while the bold verb phrases introduce the limitations of previous research. This step highlights what remains unresolved or insufficiently explored, thereby justifying the need for the current study.

IM3 introduces new research with two distinct steps:

IM3-Step (1): Reference to research purpose

IM3-Step (2): Reference to implications of the present study

An example of IM3-Step (1) is the following sentence:

> **Here we report the synthesis of** two new chiral hybrid metal-halide perovskites, (R/S-)methylbenzylammonium tin iodide $(R-/S-MBA)_2SnI_4$, and the racemic analog $(rac-MBA)_2SnI_4$. (Lu et al., 2020, p. 13031[emphases added])

The combination of the adverb “here” and the pronoun “we” signals IM3-Step (1) and explains the aim of the study. By contrast, IM3-Step (2) typically appears at the end of IM3, as shown below:

> **These results provide guidelines for** the rational design of new and more efficient 2D perovskite materials for optoelectronic applications. (Fu et al., 2020, p. 4009 [emphases added])

The emphasized phrase in this sentence highlights the implications of the present research, signaling IM3-Step (2) by pointing to broader applications and potential future impacts.

3.2.2 Moves and Steps of Methods Section in JACS

The Methods section includes three moves: (MM1) Describing Materials, (MM2) Describing Experimental Procedures, and (MM3) Elucidating Data Analysis Procedures. Of the 11 RAs, MM1 and MM2 were identified in ten RAs while MM3 was defined in seven RAs.

MM1 explains the materials, encompassing two steps:

MM1-Step (1): Detailing the source of the materials

MM1-Step (2): Preparing materials.

The following example illustrates MM1-Step (1):

> Copper nitrate, nickel nitrate, methanol, Nafion solution, sulfuric acid, sodium hydroxide, and Pt/C **were purchased from** Aldrich, Fisher Scientific and Sigma-Aldrich. (Ahsan et al., 2020, p. 14689 [emphases added])

The emphasized phrase describes how the materials were obtained. The next step, MM1-Step (2), identifies the preparation method, as shown below:

> Samples for the TAM measurements **were prepared by** mechanical exfoliation. (Fu et al., 2020, p. 4017 [emphases added])

Using the past-passive construction, this sentence highlights the process by which the materials were prepared for experiments.

MM2 mentions the detailed experimental procedures and consists of two steps:

MM2-Step (1): Documenting established procedures

MM2-Step (2): Detailing procedures

The following examples illustrate these steps, respectively.

> CD measurements **were performed using** a Jasco J-715 spectropolarimeter with the thin film placed in the beam path. (Lu et al., 2020, p. 13038 [emphases added])

> Raman spectra **were collected with** Labram HR Evolution. (Li et al., 2020, p. 2013 [emphases added])

By employing the past-passive construction and the use of the present participle "using" or the preposition "with," these sentences specify the exact instrument used, providing detailed information about the procedures followed in the experiment.

Lastly, MM3 defines data analysis procedures, as demonstrated in the following example:

> The calculations **were performed using** the Vienna ab initio Simulation Package with projector augmented wave pseudopotentials utilizing the generalized gradient approximation and Perdew-Burke-Ernzerhof exchange-correlation. (Xie et al., 2020, p. 9554 [emphases added])

This example highlights the importance of specifying the computational methods and tools in the data analysis process. By detailing the software and algorithms used, the researchers ensure transparency and reproducibility in their studies.

3.2.3 Moves and Steps of Results and Discussion Section in JACS

In the Results and Discussion section, four moves were defined: (R&DM1) Introducing Experiments, (R&DM2) Announcing Results, (R&DM3) Commenting on Results, and (R&DM4) Discussing Results. Out of 11 RAs, R&DM1, R&DM2, and R&DM3 were defined in all, but R&DM3 appeared in two RAs.

Within R&DM1, three steps were clarified:

R&DM1-Step (1): Making hypotheses

R&DM1-Step (2): Describing aims and purposes

R&DM1-Step (3): Listing procedures or methodological techniques

The first step involves formulating hypotheses using the past tense verb "hypothesized," as shown in the following example:

> **Hence, we hypothesized that** obtaining higher capacities through multielectron redox is feasible by replacing the chloroaluminate. (Nam et al. 2020, p. 2542 [emphases added])

In the second step, as the following sentence shows, the combination of to-infinitives and the subject "we" is mainly employed to articulate the aims and purposes of their experiments.

> **To better understand the nature of** the excess redox activity in the iron phases relative to their non-iron congeners, **we turned to** ex situ Mössbauer spectroscopy measurements of the electrochemically oxidized and reduced materials. (Ziebel et al., 2020, p. 2656 [emphases added])

In the third step, researchers need to list the procedures with the past tense related to methodological techniques used in their experiments, as follows:

> To further understand the effect of thermal annealing on the charge carrier dynamics, **we performed** conductive AFM and phototransient AFM mapping experiments. (Wu et al., 2020, p. 402 [emphases added])

As the next move, R&DM2 functions as announcing results including three steps:

R&DM2-Step (1) Highlighting important results

R&DM2-Step (2) Describing quantitative data.

R&DM2-Step (3) Showing adversative results.

In this step, researchers emphasize the most significant findings of their study, often using the past tense.

> The pore volume **was found to be** 0.31 cm^3 g^{-1}.(Ahsan et al., 2020, p. 14692 [emphases added])

The second step involves presenting explanations of graphs or data using the present tense. This tense is used to describe ongoing interpretations of the data, making the results feel immediate and relevant.

> More obviously, the Li/electrolyte interfacial impedance **increases from 10 to ~35 Ω cm^2 for** the H-DG host. (Li et al., 2020, p. 2018 [emphases added])

The third step presents results that cannot be observable with the word "no" as shown below.

> Cu3HXTP2 MOFs **showed no observable difference in** oxidation peak potential between the MOF in 0.1 M PBS compared to the voltammetry in 100 μM AA, thus leading to inability to reliably detect AA. (Ko et al. 2020, p. 11722 [emphases added])

R&DM3 comments on results and consists of four steps:

R&DM3-Step (1): Interpreting results

R&DM3-Step (2): Contrasting present and previous results

R&DM3-Step (3): Summarizing results

R&DM3-Step (4): Outlining the structure of the following section

In the first step, researchers provide explanations or interpretations of their findings, offering insights into what the results mean within the context of the study, as follows:

> **These results suggest that** photogenerated carriers are probably less mobile in $(BA)_2(EA)_2Pb_3I_{10}$ than in $(BA)_2(MA)_2Pb_3I_{10}$. (Fu et al., 2020, p. 4015 [emphases added])

The following step involves comparing the current findings with those from previous studies, highlighting agreements or discrepancies in positioning the new results within the existing body of knowledge as shown below:

> **This is consistent with theoretical studies on** defect formation energies in these systems. (Xie et al., 2020, p. 9557 [emphases added])

As the next step, the researchers provided a concise summary of their findings. The following sentence illustrates a comprehensive summary

> **Hence it is reasonable to conclude that** the framework of carbon matrix on which the nanosized NiCu NPs uniformly embedded can efficiently prevent the NPs from being excessively oxidized and agglomerating, and might facilitate the faster electron transport between the NiCu NPs and the carbon matrix, leading to efficient electrocatalytic performance. (Ahsan et al., 2020, p. 14693 [emphases added])

The last step guides readers by indicating what will be discussed next, enhancing the flow and coherence of the paper, as illustrated below.

> The correlation between Mn···Mn distances and PLQY **will be discussed in the next section**. (Mao et al., 2020, p. 13585 [emphases added])

As the final move, R&DM4 discusses results, though it was less commonly used compared to other moves. This move involved two steps:

R&DM4-Step (1): Making suggestions

R&DM4-Step (2): Suggesting further research

In the first step, researchers offer interpretations or propose ideas based on their findings, often highlighting the proposed mechanism. The noun “mechanism” is one of the key signals commonly used in this step, as shown below.

> Beyond this electrolyte dependence, **we note that** the insertion **mechanism** of 1 is particularly unusual in that electron and ion transport are not dimensionally coupled. (Ziebel et al., 2020, p. 2660 [emphases added])

In the next step, the authors identifies areas for additional investigation, acknowledging limitations or unanswered questions that future studies could address, as shown below.

> **Further investigations** aimed to address these points **will be the focus of future work**. (Ziebel et al., 2020, p. 2660 [emphases added])

This statement explicitly indicates the authors’ intention to pursue further research on the specific aspects highlighted in their study.

3.2.4 Moves and Steps of Conclusion Section in JACS

All 11 RAs included a Conclusion section. While move analyses of Conclusion sections has been rarely conducted, Ruiying and Allison (2003) identified three moves in applied linguistics: “Summarizing the Study,” “Evaluating the Study,” and “Deductions from the Research” (p. 379). In this study, however, the first move is treated as the first step, and the last two moves are combined into the second step. Thus, the Conclusion Move (CM) is defined as Stating Research Conclusions, consisting of two distinct steps:

CM-Step1. Summarizing the study

CM-Step2. Stating limitations and future research

The first step reinforces the main points and ensures that readers are reminded of the significant results of the study, as follows:

> **In summary, we report** the facile synthesis of trifunctional bimetallic NiCu nanoparticles encapsulated in carbon that allows the systematic control of the structure and the electronic properties thus, producing effective catalysts for HER, OER, and ORR reactions. (Ahsan et al., 2020, p. 14699 [emphases added])

In the second step, the authors acknowledge the limitations of their study and suggest areas for future research or applications, as shown below.

> **We anticipate that**, with further development, the findings of this first proof-of-concept study **will open new avenues for** implementing conductive 2D MOFs as broadly applicable components in biologically relevant electroanalysis. (Ko et al., 2020, p. 11727 [emphases added])

The above sentence leaves readers with a clear understanding of the study’s impact and an anticipation of how the work might evolve.

4. Discussion

This study has answered two RQs. The answer to RQ1 is that the predominant section pattern in chemical journal RAs, in JACS, is IM[R&D]C format. Additionally, the answer to RQ2 is summarized in Table 4. Table 4 illustrates the functions of the moves and steps in JACS and shows the number of moves out of the 11 selected RAs, detailing the tokens and types in each move. The three moves mentioned in the Introduction section were present in all the analyzed RAs. However, several moves in the other three sections did not appear in any of the RAs, particularly in R&DM4. When creating a larger move corpus, we should consider that the occurrence of R&DM4 may increase to a certain extent.

Lin and Evans (2012) revealed that the most prevalent pattern was ILM[R&D]C (21.0%), where the capital L represents the Literature Review section, while the percentages of IM[R&D]C and IMRD were 15.7% and 12.2%, respectively. Although various section patterns exist depending on disciplines, traditional move analyses have concentrated on describing the IMRD structure. Our result shows that the percentages of IM[R&D]C and I[R&D]C were 66% and 29%, respectively. These findings imply that educators should recognize discipline-specific variations in RA structures. This study also provides useful expressions for academic writing instruction, particularly in classroom settings. For instance, educators can design tailored writing curricula and materials that equip students and early-career researchers with the tools to effectively navigate the norms of chemical RA writing. This includes providing students with example sentences, linguistic characteristics, and move-step structures identified in this study to enhance their understanding of how to structure and present their research.

Moreover, this study will serve as the foundational work for creating a larger move corpus. As Kawamoto and Ishii (2018, 2022) described, a larger move corpus can be used to systematically develop a useful list of expressions. Further research using a move corpus for chemical RAs will pave the way for applying this list to the teaching of academic writing in chemistry.

5. Conclusion

In summary, we identified typical section patterns by analyzing 100 randomly selected RAs from JACS published in 2018 and described the rhetorical

Table 4

Summary of Move Analysis of JACS

Sections/Moves/Steps	Files	Tokens	Types
Introduction			
IM1: Presenting Background Information	11	2,071	849
IM1-Step (1): Presenting background information			
IM1-Step (2): Reference to main research problems			
IM2: Reviewing Related Research	11	3,348	1,194
IM2-Step (1): Reference to previous research			
IM2-Step (2): Reference to limitations of previous research			
IM3: Presenting New Research	11	2,727	1,045
IM3-Step (1): Reference to research purpose			
IM3-Step (2): Reference to implications of the present study			
Methods			
MM1: Describing Materials	10	4,128	1,099
MM1-Step (1): Detailing the source of the materials			
MM1-Step (2): Preparing materials			
MM2: Describing Experimental Procedures	10	4,567	1,340
MM2-Step (1): Documenting established procedures			
MM2-Step (2): Detailing procedures			
MM3: Elucidating Data Analysis Procedures	7	1,226	477
Results and Discussion			
R&DM1: Introducing Experiments	11	9,691	2,360
R&DM1-Step (1): Making hypotheses			
R&DM1-Step (2): Describing aims and purposes			
R&DM1-Step (3): Listing procedures or methodological techniques			
R&DM2: Announcing Results	11	14,567	2,511
R&DM2-Step (1): Highlighting important results			
R&DM2-Step (2): Describing quantitative data			
R&DM2-Step (3): Showing adversative results			
R&DM3：Commenting on Results	11	13,825	2,573
R&DM3-Step (1): Interpreting results			
R&DM3-Step (2): Contrasting present and previous results			
R&DM3-Step (3): Summarizing Results			
R&DM3-Step (4): Outlining the structure of the following section			
R&DM4：Discussing Results	2	699	341
R&DM4-Step (1): Making suggestions			
R&DM4-Step (2): Suggesting further research			
Conclusion			
CM: Stating Research Conclusions	11	3,140	1,131
CM-Step (1): Summarizing the study			
CM-Step (2): Stating limitations and future research			

move-step structure and its linguistic characteristics in chemical RAs by examining 11 RAs from JACS published in 2020, providing a foundation for both academic writing pedagogy and future research aimed at creating a larger move corpus for chemical RAs. These findings contribute significantly to the understanding of discourse structure in chemical RAs, particularly those following the IM[R&D]C format, which has been relatively underexplored in comparison to the IMRD format. While the corpus size is relatively small to draw definitive conclusions about language patterns, this detailed move analysis of JACS RAs will serve as a foundational framework for teaching the move-step structure and constructing a larger move corpus in the field of chemistry.

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Effects of Spoken Input on Syntactic Priming in the Language Production of Japanese EFL Learners

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Abstract

Cultivating EFL learners' speech communication skills is becoming increasingly important in foreign language education, and the automatization of syntactic processing is a significant factor in promoting fluency. Study on L1 speakers has shown changes in acquired syntactic knowledge with experience (Jaeger & Snider, 2013), but how EFL learners' incomplete syntactic knowledge is learned and how to promote their retention of syntactic structures have not been clarified. A picture description task with spoken primes and targets was conducted to examine whether a syntactic priming (repetitive use of earlier encountered structures) of Japanese EFL learners occurs for structures with lower preferences. The results demonstrated syntactic priming with active input, as well as increased proportions of cumulative syntactic priming with passive input, when learners successfully heard and understood the spoken input. Thus, the results indicated that learners' syntactic structures in the mental lexicon were activated by the presentation of spoken primes, and prior exposure to the structures enforced syntactic processing when they encountered the same structures again. Therefore, the results confirmed that the enforcement of syntactic processing promoted the production of the same structures, and EFL learners learned syntactic knowledge through error-based learning processes based on prediction errors, similar to native speakers.

Keywords: syntactic priming, spoken input, L2 language production

1. Introduction

1.1 Significance for Developing English Language Skills

With the advent of a globalized society, the development of English language skills among the Japanese has become an urgent issue. It is essential to acquire productive language skills, such as speaking and writing skills, to express opinions and convey messages efficiently using foreign languages. In the current Japanese foreign language curriculum, cultivating speech communication skills is becoming increasingly important, with the "speaking" component of foreign language instruction now divided into two parts: interaction and presentation to focus on speech-based communication using a foreign language. However, non-

native speakers of English, such as Japanese EFL learners, often face difficulties in producing the language smoothly, and their production processes lack automaticity.

The present study attempted to explore the mechanisms underlying Japanese EFL learners' language production to investigate how they acquire syntactic structures through input and output, specifically examining the occurrence of the cumulative syntactic priming effect by hearing spoken output.

1.2 Previous Studies

1.2.1 Cognitive Processes in Language Production

Levelt (1989) proposed a psycholinguistic model of listening and speaking cognitive processes. In this model, speakers first consider what they want to say using a *conceptualizer*. In the *formulator*, *grammatical encoding* accesses lemma information stored in the speaker's mental lexicon and constructs the syntax, while *phonological encoding* accesses lexeme information to retrieve a phonetic or articulatory plan for each lemma. Finally, in the *articulator*, successive chunks of internal speech are retained and gradually executed.

According to Levelt, automatization of the process of grammatical encoding, especially accessing and building syntax, is important for spoken language comprehension and production, enabling smooth and efficient communication. However, as stated above, non-native speakers of a language, such as Japanese EFL learners, often encounter difficulties with grammatical encoding, which interferes with smooth output production (Morishita & Yokokawa, 2014). In this study, I attempted to elucidate the nature and progression of syntactic processing.

1.2.2 Incremental Processing of a Language

In language comprehension, speakers do not wait until complete language information is available but rather analyze the information that is available, whether in spoken or written form. This incremental processing is conducted based on the person's language experience with statistical information, such as the frequency of structural knowledge and the structural frequency of their vocabulary (Mitchell et al., 1995). While this strategy can be efficient for speakers with limited memory capacity, it can also lead to misinterpretations due to processing difficulties. Speakers' experience-based information is constantly updated unconsciously with new experiences, a process known as *implicit learning* (Wells et al., 2009).

1.2.3 Syntactic Priming Effect Reflecting Error-Based Learning

Interlocutors need to align their linguistic representations at each linguistic level within a dialogue to foster mutual understanding and achieve effective

communication. Pickering and Garrod (2004) proposed a schematic representation of the stages of comprehension and production, in which the repetitive use of linguistic elements and structures by interlocutors is caused by the occurrence of *interactive alignment* (*co-ordination*). These repetitions occur at all linguistic levels.

Interactive alignment is achieved using a *priming* mechanism, such as *syntactic priming*, which functions at different levels of representation to produce alignment. Syntactic priming occurs when an interlocutor repeatedly uses the same syntactic structure because of recent prior experience with that structure. Recent findings have shown that priming at one linguistic level can enhance priming at other levels (Levelt & Kelter, 1982; Pickering & Garrod, 2004).

Recent L2 acquisition studies have used the syntactic priming method to promote target language production and have investigated the learning mechanism (McDonough & Kim, 2009). In the implicit learning account, the syntactic priming effect is recognized as a learning process for long-term adjustments in the sentence production system (Levelt, 1989). Changes induced by syntactic priming involve procedural or implicit learning (Tulving & Schacter, 1990). The syntactic priming effect can be observed without lexical repetitions and can persist over intervals, unlike memory maintenance. Chang et al. (2000) and Chang et al. (2006) proposed that both immediate and long-term effects of prior syntactic experiences occur from a single error-based implicit learning mechanism. They suggested that speakers use the difference (*prediction error*) between the predicted and actual next word or structure to adjust the weights associated with syntactic knowledge in this mechanism to improve their subsequent production. This prediction error, when combined with comprehensive input, increases the weights of the actual input and the predictability of the word or structure, leading to the occurrence of the syntactic priming effect. Information based on experience does not remain the same after the speaker has acquired a language at a certain level; instead, it is constantly updated by new experiences. This change (*adaptation*) occurs unconsciously when speakers use implicit memory (Ellis et al., 2016). Thus, speakers' linguistic knowledge is adaptive and constantly changes with experience, even in adults who have already acquired a native language (Wells et al., 2009).

If the magnitude of prediction error (*surprisal*) reflects the degree of learning, the lower the prediction probability for a particular word or structure, the higher the degree of error when it occurs, leading to a stronger learning effect. Jaeger and Snider (2013) claim that syntactic priming is a consequence of adaptation aimed at minimizing the expected prediction error experienced while processing subsequent sentences, thereby facilitating efficient information transfer. In their study, spoken picture descriptions and written sentence

completion tasks were conducted by native English speakers. The results indicated that the less expected the encountered word or structure is based on previous experience, the larger the surprisal, suggesting that prediction error is sensitive to both prior and recent experience. Thus, this study suggested that syntactic priming reflects learning based on prediction errors. Kaschak and Borreggine (2008) examined the effect of structural frequency on the persistence of syntactic priming using a sentence completion task. This study found that patterns of experience in the bias phase affected target completion in the priming phase, showing a tendency for speakers to reuse the same structure. Therefore, the results indicated that cumulative syntactic priming effects reflect adaptations in language production on an abstract, structural level of representation, and the basic priming effect is produced by implicit learning within the language production system. However, the results of these studies indicated how native English speakers acquire syntactic knowledge; thus, how L2 and EFL learners acquire knowledge and whether error-based learning applies to L2 language acquisition have not been clarified.

Several studies of native English speaker have reported that the syntactic priming effect was observed in both comprehension and production without bias toward a specific structure and was not affected by modality differences or persistence, and interactive priming between syntactic structure and non-syntactic information (Arai et al., 2007; Bock, 1986; Bock & Griffin, 2000; Cleland & Pickering, 2006; Fukumura & Zhang, 2023).

However, different results have emerged for English L2 learners. Coumel et al. (2023) conducted a picture description task to investigate the effects of prime modality on the primed production of passives. The results showed that syntactic priming promotes long-term learning regardless of input modality, but the magnitude of immediate priming was higher when participants listen to the primes than reading primes. The proficiency level of the participants was relatively higher; thus, the result does not apply to lower-level learners. McDonough (2006) examined the occurrence of syntactic priming in L2 learners, using an oral picture description task. This task elicited Preposition-Object (PO) or Double-Object (DO) structures when participants began describing pictures orally after exposure to the structures as prime sentences. The results showed that syntactic priming was observed only in PO sentences, and not in DO sentences. In summary, McDonough found, that L2 learners' relative rate of production of PO and DO sentence structures was biased compared with that of native English speakers, who produced both sentence structures equally and showed evidence of syntactic priming with both. This suggests that the degree of retention of syntactic representations in the mental lexicon for L2 learners differed from that of native English speakers. In Morishita's (2011) study, Japanese EFL learners were

instructed to complete spoken or written target sentences after hearing or seeing the prime sentences. The priming rate was found to be stronger with PO prime sentences than with DO prime sentences and the lowest with spoken primes and targets. These results suggest that the distinction between input and output modalities affects how Japanese EFL learners formulate their knowledge of sentence structures. The results also indicate that the magnitude of this formulation differs between spoken and written production and is affected by learners' lack of listening ability. Hamada and Yokokawa (2017) conducted a picture description task with spoken primes that were controlled for the number of syllables, word familiarity, and speech rate to ensure that the Japanese EFL learners in the study could hear and fully understand them. The results showed a priming effect in both modalities, indicating that the learners successfully understood the primes. Therefore, syntactic structures were represented, and the links between combinatorial nodes and lemmas were activated by the spoken primes, which enforced syntactic processing when learners encountered the same structures again.

In the studies of EFL learners discussed above, in which there was no syntactic priming effect with DO sentences, the syntactic representations of PO sentences may have been internalized in their mental lexicons before the experiment, making it unclear whether a syntactic priming effect occurred. Additionally, the magnitude of the syntactic priming effect of spoken primes varied across studies.

Therefore, the current study investigated the effects of spoken input on Japanese EFL learners' syntactic priming in language production to clarify how their syntactic knowledge is learned and acquired. Specifically, the current experiment used a different syntactic structure (passive sentences) with a lower preference for EFL learners, and controlled the primes in terms of their syllable, familiarity, and speed to ensure that the participants could hear the spoken primes.

2. Purpose of the Study

In this study, a picture description task with spoken prime and target using the same method with Bock (1986) was conducted to investigate whether a syntactic priming effect occurs when Japanese EFL learners produce structures with lower preferences. The target structure was passive, which English L2 speakers may have difficulty producing due its many complex grammatical, lexical, and pragmatic features during spontaneous written and oral speech production. Alternatively, the structure may be underused by English L2 speakers relative to native English speakers if they have not fully acquired its function (Hinkel, 2004; Watabe et al., 1991).

The following research questions were addressed in this study:

Research Question 1: Does a syntactic priming effect occur when spoken primes are presented?

Research Question 2: Do differences in learners' proficiency levels affect syntactic priming?

3. Method

3.1 Participants

The participants were 31 native-Japanese-speaking undergraduate English learners from a university in the Kansai region. The participants ranged in age from 19 to 22 years, with 7 to 10 years of previous English study. Each participant participated in a one-day experiment. This study was conducted between June and October 2022. Informed consent was obtained from all participants. The participants' English levels were measured using the Oxford Quick Placement Test (2001) (total score, 60). Mean scores on the Oxford Quick Placement Test corresponded to the B1 and B2 (lower and upper intermediate) levels of the Common European Framework of Reference for Languages (CEFR). Table 1 shows the participants' English proficiency results by their proficiency levels (B1 or B2).

Table 1

Participants' Mean (M) Scores and Standard Deviations (SD) on the English Proficiency Tests

Proficiency level	*N*	*M*	*SD*	*Max*	*Min*
B2	15	42.60	2.42	47	40
B1	15	36.20	2.45	39	31

Participants were divided into two groups: B2-level learners were considered upper-level, and B1-level learners were considered lower-level. Because the experiment was conducted with learners at the B1 and B2 levels, data from one participant at the C1 level were excluded from the analysis.

Upper-level learners (n = 15) had a mean score of 42.60 (SD = 2.42), and lower-level learners (n = 15) had a mean score of 36.20 (SD = 2.45). Significant differences were observed between participants' proficiency levels (F (1, 28) = 48.32, $p < .01$, *partial* $\eta^2 = .63$).

3.2 Materials

Target pictures intended to induce passive and active sentence structures

were prepared, with each depicting an action involving an agent and a beneficiary. Eleven verbs (*push*, *punch*, *see*, *help*, *kiss*, *find*, *kill*, *assist, thank*, *scare*, and *embrace*) were used for the prime sentences and (corresponding) target pictures (Bock, 1986). Since individual verbs may be strongly associated with their passive forms, verbs were chosen based on the frequency of their occurrence in the passive form—all had appeared in the passive form between 2 and 18 times per million words—so that participants could not predict the target structure (Kim & McDonough, 2008). Each verb was presented in a passive or active prime sentence, using the same verb as the prime and target.

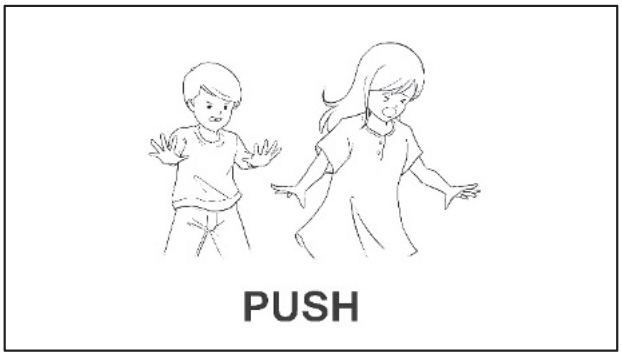
Prime sentences contained a subject followed by a verb with a passive sentence structure and filler active sentences (e.g., *The boy pushed the girl*). An example is shown in Figure 1. Sentence (1) is a prime sentence, the target picture is displayed, and (2) is the expected response.

Figure 1

Example of a trial

(1) Prime sentence
The artist was *pushed* by the fan.

Target picture



(2) Expected response based on target picture
The girl was *pushed* by the boy.

All prime sentences were controlled for the number of syllables, level of familiarity, location of agents, and speaking rate. The number of syllables ranged from seven to 11, and all prime sentences used words from level 5.0 to 7.0 based on the audio and written versions of the vocabulary familiarity list (Yokokawa, 2006, 2009). The agents in the target pictures were located on the right side in 11

pictures and on the left side in the other 11 pictures to avoid fostering smooth production by fixating on a specific side of the pictures. The speeds of all spoken primes were maintained at 50 wpm.

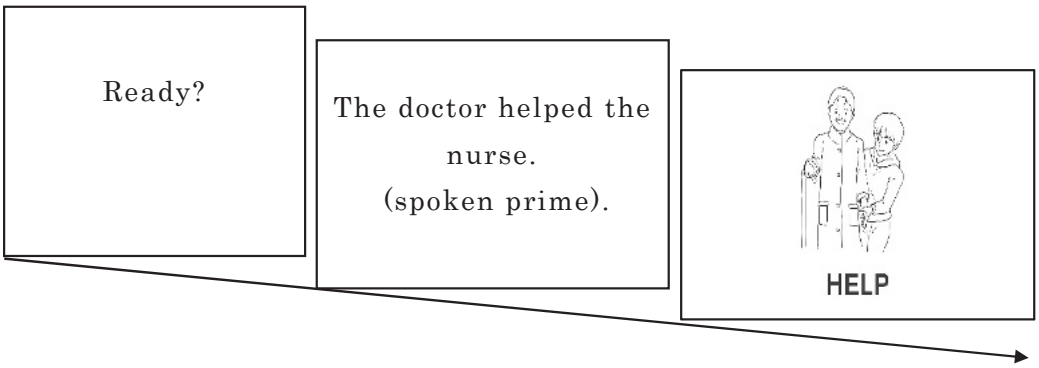
In these experiments, a total of 88 items were prepared under two conditions (passive and active). The experimental items were then placed into two lists (Lists 1 and 2), each of which comprised 22 passive and 22 active sentences, for a total 44 sentences per list.

3.3 Procedure

The experimental items were presented on a computer screen; the participants were seated in front of the computer in a quiet booth and instructed by the researcher. First, the experimental procedure was described. Then, to obscure the actual purpose of the experiment, participants were told that the researcher was interested in the types of sentences Japanese EFL learners could produce. The experiment comprised three phases and required approximately 150 minutes. The three phases are described in detail below.

Figure 2

Procedure of Phase 1 (Priming Experiment)



The procedure of Phase 1 is illustrated in Figure 2. In Phase1 (Priming Experiment), participants listened to the spoken primes and described the target pictures to investigate whether they would produce the same structures when they were given sentences with passive versus active sentence structures. At the beginning of each trial, the participants would see the message “Ready?” on the computer screen and would press the “Enter” key to start. The participants then listened to the primes and used the verb presented with the target picture to describe the picture in one sentence by speaking as quickly as possible. Participants repeated the primes to promote the production of the target structure

(Shin & Christianson, 2012). The 44 sentences from each list were randomly presented to each participant, and the responses were recorded using an IC recorder and transcribed.

In Phase 2 (Questionnaire), the participants responded to questions regarding their impressions of the task after completing the experiment. The purpose of the questionnaire was to confirm whether participants could listen to and understand the primes. The questionnaire also confirmed that participants did not know or had not become aware of the true purpose of the current study.

In Phase 3 (English Proficiency Test), participants took the Oxford Quick Placement Test to measure their English proficiency levels.

4. Results

The questionnaire results confirmed that the participants heard and understood the primes without difficulty, and none of them noticed the importance of the target structures.

4.1 Syntactic Structure and Prime Type

The learners' sentences spoken in response to the targets were classified as passive, active, or other. Passive sentences were defined as sentences with a patient in the subject position and a verb phrase consisting of *be* + a past participle. Responses with and without the agent, expressed as by-phrase, were classified as passive. Active sentences were defined as those with an agent in the subject's position and the patient as the object. All other responses were classified as other, including passives without auxiliary verbs, with the agent as the subject, and transitive activities without an object. Responses with unsuccessful repetitions of primes were not considered in the analysis.

Transcribed target responses were divided into "Priming" (i.e., Using the same sentence structure between primes and targets), "Alternate" (i.e., active target production for passive prime sentences or passive target production for active prime sentences), and "Other" (i.e., unrelated to Priming and Alternate groups) groups; these sentence structures and the primes sentence types (i.e., passive or active) were analyzed as within-participant factors using two-way analysis of variance (ANOVA), in order to investigate the occurrence of the syntactic priming effect. Throughout the analyses, p-values less than .05 were considered statistically significant; partial eta-squared (η^2) values are reported as effect sizes. Table 2 provides the results for the overall mean responses, relative proportions (%), and standard deviations based on the learners' proficiency. Figures 3 and 4 show the overall proportions (%) of participants' responses to passive and active primes by learner proficiency and list, respectively.

Table 2

Overall Mean (M) Responses, Relative Proportions (%), and Standard Deviations (SD) by Learner Proficiency

		Priming			Alternate			Other		
Prime		*M*	*%*	*SD*	*M*	*%*	*SD*	*M*	*%*	*SD*
Passive	B2	19.07	52.77	13.15	16.20	44.83	11.12	0.87	2.40	1.20
	B1	20.93	55.28	12.75	15.47	40.84	10.98	1.47	3.87	2.22
Active	B2	34.00	80.44	7.21	6.60	15.61	6.47	1.67	3.94	1.81
	B1	35.60	84.36	5.21	4.93	11.69	4.12	1.66	3.95	2.44

Note. Priming indicates the same sentence structure was used for primes and targets. Alternate indicates active target production for passive prime sentences or passive target production for active prime sentences. Other is unrelated to a priming or alternate response.

Figure 3

Overall proportions (%) of responses to passive primes based on learner proficiency and list

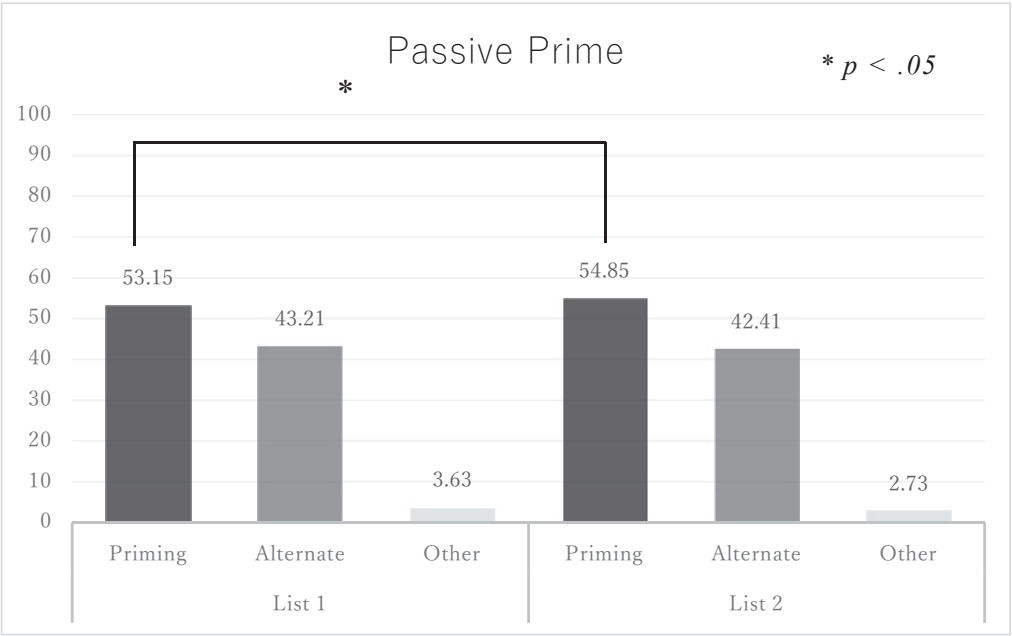
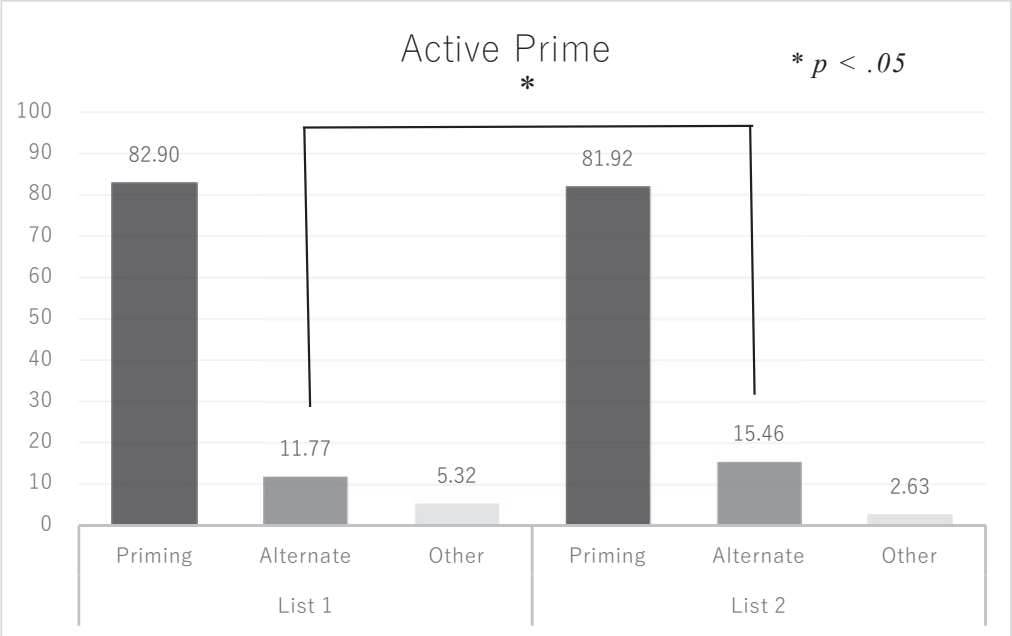


Figure 4

Overall proportions (%) of responses to active primes based on learner proficiency and list



According to the results, the interaction between sentence structure and prime sentence type was significant (F (2, 58) = 25.60, $p < .01$, *partial* $\eta^2 = .47$). The proportion of Priming responses for active primes was significantly larger than that of passive primes (passive: 54%; active: 82%), and the proportion of Alternate responses for passive primes was significantly larger than that of active primes (passive: 13%; active: 42%).

The simple main effect of sentence structure and prime sentence type was significant (sentence structure: F (2, 58) = 114.85, $p < .01$, *partial* $\eta^2 = .80$; prime sentence type: F (1, 29) = 15.64, $p < .01$, *partial* $\eta^2 = .35$), and the syntactic priming effect occurred only with active primes. The proportions of Priming and Alternate responses to passive primes were significantly larger than those of Other responses (Priming: *adjusted p* s = .00, .00; Alternate: *adjusted p* s = .00, .00), and the difference between the proportions of Priming and Alternate responses was not significant. The proportions of Priming responses for active primes were significantly larger than those for Alternate and Other responses (Alternate: *adjusted p* s = .00, .00; Other: *adjusted p* s = .00, .00).

Sentence structures and lists (i.e., Lists 1 or 2) were analyzed as between-participant factors using a two-way ANOVA to investigate the occurrence of cumulative syntactic priming.

The results showed that the simple main effect of the lists was significant for the proportion of Priming responses for passive primes and Alternate responses for active primes (Priming for passive primes: F (1, 29) = 4.66, p < .05, *partial* η^2 = .14; Alternate for active primes: F (1, 29) = 4.50, p < .05, *partial* η^2 = .13) , indicating that the proportion of Priming responses for List 2 was significantly larger than that for List 1.

4.2 Syntactic Structure and Learners' Proficiency

Learners' proficiency levels (i.e., upper or lower) and sentence structures (i.e., Priming, Alternate or Other) were analyzed as between-participant factors using two-way ANOVA to investigate the effects of learner proficiency on the syntactic priming effect.

According to the results, the interaction between the learner proficiency level and sentence structure was not significant (passive prime: F (1, 28) = 0.41, n.s., *partial* η^2 = .01; active prime: F (1, 28) = 0.01, n.s., *partial* η^2 = .00). Although the proportion of Priming responses for lower-level learners was larger than that of upper-level learners (lower passive: 55%; lower active: 84%; upper passive: 52%; upper active: 80%), and the proportion of Alternate responses for upper-level learners was larger than that of lower-level learners (lower passive: 40%; lower active: 11%; upper passive: 44%; upper active: 15%) for both passive and active primes, these differences were not significant.

5. Discussion

This study examined how Japanese EFL learners learn syntactic knowledge by investigating the effects of spoken input on Japanese EFL learners' syntactic priming in language production.

Research Question 1 asked whether the syntactic priming effect occurred with the presentation of spoken primes; it was found to occur with active primes.

There are two possible reasons for the syntactic priming effect observed in the active stimuli. First, learners changed their knowledge of active sentence structure from declarative to procedural, and repeated exposure to syntactic structures was effective in sustaining retrieving knowledge. The second possible reason is that learners' syntactic representations of the structure already internalized in their mental lexicons led to its reinforcement through spoken input and repetition.

However, contrary to the results for active primes, the syntactic priming effect with passive primes was not observed. This finding contradicts Chang et al. (2006), who asserted that less frequent and unexpected structures (passive in the current study) yield greater errors than more frequent structures (active in the current study), causing a greater adjustment in the error-based learning

mechanism. In this study, learners' self-priming capabilities and differences in the cognitive complexity of structures may have affected the results (Hulstijn & de Graaff, 1994). Participants repeated primes to promote the production of the target structure (passives), and the repetition of primes reinforced the syntactic priming effect for both passives and actives, indicating that learners self-primed by producing active sentence structures. In addition, learners tended to produce active targets with failed passive prime repetitions, thereby promoting self-priming. Moreover, passive sentences are one of the most difficult structures to learn their linguistic complexity, and since speakers need to master many processes such as word order, person and number agreement, tense, and agent-patient / theme to produce them, they do not appear until relatively late in the native language (Kirby, 2010). In the present study, 15.91% of all passive primes were incorrectly repeated. The results suggest that explicit instruction on sentence structures and exposure to a large amount of input are required for Japanese EFL learners with deficit English input.

In contrast, the proportion of passive responses for passive and active primes increased from List 1 to List 2, indicating a cumulative syntactic priming effect with passives. The results demonstrated that repeated exposure to passives caused a prediction error between the predicted (active) and given (passive) structures, resulting in changes in the network of existing syntactic representations. Therefore, the results were consistent with an error-based implicit learning mechanism, with speakers updating their knowledge by tracking the probability of using certain structures in different contexts of language use, showing that EFL learners acquire syntactic knowledge through the same learning process as native English speakers (Chang et al., 2006). According to Boston (2010), passive sentences that are neither necessary nor useful for performing a task are less likely to be primed even if they are given as input; thus, the increased production of passives indicates that spoken input had some effect on Japanese EFL learners' learning processes.

Research Question 2 asked whether differences in learners' proficiency levels affected syntactic priming; it was found that learners' proficiency did not affect either passive or active primes.

The proportion of priming responses was larger for lower-level learners than for upper-level learners for both prime types, and upper-level learners tended to produce the non-prime structures; however, these differences were not significant. In Hartsuiker and Bernolet's (2017) lexically-based processing model of L2 syntax acquisition, the degree of maintenance and retrieval of lexico-syntactic representations in an L2 depends on the learner's proficiency level: lower-level learners tend to rely on lexical items and L1 transfer, imitating structures when they produce complex sentences. After sufficient exposure to L2,

intermediate learners gradually acquired language- and item-specific syntactic representations by adding combinatorial nodes. In upper-level learners, syntactic representations become more abstract and they are less likely to rely on specific lexical items; thus, they tend not to be influenced by the priming effect. Therefore, the large percentage of priming responses for lower-level learners shows that the reinforcement of input, such as repetition of primes, enhances learners' formulation of syntactic representations that have yet to be fully internalized.

The current study used passive sentences as the target structures to investigate the syntactic priming effect with spoken primes and targets. The proportion of passive responses increased as the experiment progressed; however, a syntactic priming effect with passives was not observed, suggesting the difficulty of internalizing syntactic structures with lower preference in learners' mental lexicons.

Kaschak et al. (2011) conducted sentence completion and picture description tasks with native English speakers. The results demonstrated that the cumulative syntactic priming effect observed in Kaschak and Borreggine (2008), which they achieved by manipulating the frequency of structures in input, persisted for a week and was transferred between language production tasks. Hamada and Yokokawa (2019) conducted an experiment with Japanese EFL learners using an oral description task. Lower-level learners had lower priming rates than higher-level learners, indicating that the syntactic representations of the structures were not fully internalized. However, the process of internalizing these structures and automatically producing syntactic structures remains unclear.

Therefore, for future studies, it is necessary to further explore how EFL learners acquire production skills for syntactic structures by conducting an experiment on learners with different proficiency levels using different proficiency measurement methods and controlling the input frequency and learning interval. The results need to be compared between tasks using different output modalities and learners should be exposed to syntactic structures consistently for a longer period.

6. Conclusion

This study investigated how Japanese EFL learners acquire syntactic knowledge by examining the effects of spoken input on syntactic priming in language production. The results show that the occurrence of syntactic priming and increased proportions of cumulative syntactic priming were observed when learners successfully heard and understood the spoken input. This result demonstrates that learners' syntactic structures in the mental lexicon were activated by the presentation of spoken primes, and prior exposure to these structures enforced syntactic processing when they encountered the same

structures again. Therefore, the results confirm that the enforcement of syntactic processing led to the promotion of the production of the same structures. In addition, EFL learners learn syntactic knowledge through error-based learning processes based on prediction errors, as native English speakers.

In the globalized world, cultivating productive language skills is necessary not only in L1 but also in a foreign language. The results of the current study show the cumulative priming effect with spoken input, which reflects an error-based implicit learning mechanism with Japanese EFL learners regardless of their proficiency levels. McDonough et al.'s (2015) study, which conducted information exchange tasks with EFL learners, showed that the priming rate with spoken input was significantly higher than that with written input. Thus, together with findings, conducting oral interactions repeatedly in the classroom would facilitate learners to access, and retrieve their syntactic information in the production lexicon, and lead to the reinforcement of the syntactic representations.

Moreover, the priming effect with active primes was observed, but the priming effect with passive primes was not observed in the study, thus, it suggests that learners' syntactic representations of active were not fully internalized. Hamada and Masumi's (2024) study, conducting a speaking activity with Japanese EFL learners, reported that structural frequency and accuracy were higher, and a cumulative priming effect was observed with the increase in the number of exposures to target structures and the repetitions of the structures. Embedding target structures into communicative activities may represent a technique for encouraging learners to use the structures while preserving an activity's primary focus on meaning. Therefore, it is suggested that sustaining speech-based interactions with increased frequency of target structures and repetition of the structures is an effective way to promote the retention and acquisition of the syntactic structures.

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Appendix

The prime sentences used in the experiment (Passive / Active)

1	The couple was pushed by the man.	The man pushed the couple.
2	The boy was pushed by the girl.	The girl pushed the boy.
3	The artist was pushed by the fan.	The fan pushed the artist.
4	The woman was pushed by the child.	The child pushed the woman.

5	The actor was punched by the boy.	The boy punched the actor.
6	The policeman was punched by the man.	The man punched the policeman.
7	The judge was punched by the fan.	The fan punched the judge.
8	The man was punched by the woman.	The woman punched the man.
9	The boy was seen by the girl.	The girl saw the boy.
10	The model was seen by the fan.	The fan saw the model.
11	The teacher was seen by the student.	The student saw the teacher.
12	The doctor was seen by the nurse.	The nurse saw the doctor.
13	The nurse was helped by the doctor.	The doctor helped the nurse.
14	The student was helped by the teacher.	The teacher helped the student.
15	The mother was helped by the son.	The son helped the mother.
16	The driver was helped by the man.	The man helped the driver.
17	The girl was kissed by the boy.	The boy kissed the girl.
18	The artist was kissed by the fan.	The fan kissed the artist.
19	The queen was kissed by the king.	The king kissed the queen.
20	The man was kissed by the woman.	The woman kissed the man.
21	The thief was found by the policeman.	The policeman found the thief.
22	The girl was found by the boy.	The boy found the girl.
23	The mouse was found by the cat.	The cat found the mouse.
24	The son was found by the mother.	The mother found the son.
25	The actor was killed by the artist.	The artist killed the actor.
26	The king was killed by the guest.	The guest killed the king.
27	The man was killed by the friend.	The friend killed the man.
28	The leader was killed by the enemy.	The enemy killed the leader.
29	The student was assisted by the teacher.	The teacher assisted the student.
30	The doctor was assisted by the nurse.	The nurse assisted the doctor.
31	The baby was assisted by the mother.	The mother assisted the baby.
32	The king was assisted by the adviser.	The adviser assisted the king.
33	The teacher was thanked by the mother.	The mother thanked the teacher.
34	The artist was thanked by the fan.	The fan thanked the artist.
35	The girl was thanked by the boy.	The boy thanked the girl.
36	The police were thanked by the people.	The people thanked the police.

37	The girl was scared by the boy.	The boy scared the girl.
38	The doctor was scared by the child.	The child scared the doctor.
39	The mouse was scared by the cat.	The cat scared the mouse.
40	The man was scared by the woman.	The woman scared the man.
41	The friend was embraced by the man.	The man embraced the friend.
42	The daughter was embraced by the father.	The father embraced the daughter.
43	The queen was embraced by the king.	The king embraced the queen.
44	The gentleman was embraced by the lady.	The lady embraced the gentleman.

Appendices

『JACET 関西支部紀要』（JACET Kansai Journal）刊行規定

（2025 年 4 月 1 日改定）

1．刊行趣旨

JACET 関西支部は支部会員に研究発表の機会を提供し，もって支部の研究活動の活性化に資するべく，研究紀要を刊行する。

2．刊行物の名称

本紀要の名称は『JACET 関西支部紀要』（JACET Kansai Journal）とする。なお，巻号は従前刊行物より継続とする。

3．刊行物の内容

『JACET 関西支部紀要』には，投稿原稿及び委嘱原稿他を掲載する。

4．刊行物の形態

『JACET 関西支部紀要』は冊子体および電子媒体で同時に刊行する。
なお，電子媒体での刊行には，国立研究開発法人科学技術振興機構（JST）が運営する J-STAGE のプラットフォームを使用する。

5．刊行事務

『JACET 関西支部紀要』刊行事務のために，JACET 関西支部紀要編集委員会を置く。

6．刊行経費

『JACET 関西支部紀要』の刊行にかかる経費は，JACET 関西支部予算で充当する。

7. 詳細規定

『JACET 関西支部紀要』に掲載する論文に関する詳細規定は，JACET 関西支部紀要編集委員会において「投稿要領」として定める。

8. 規定の改廃

本規定の改廃は，JACET 関西支部役員会において行う。

――

2008 年 12 月制定
2015 年 3 月 7 日改定
2017 年 12 月 1 日改定
2024 年 3 月 9 日改定
2025 年 4 月 1 日改定

JACET Kansai Journal Publication Policy

(Revised April 1, 2025)

1. Aims

JACET Kansai Chapter's journal serves as a medium for publication of research by its Chapter members and thus promotes research activities.

2. Journal title

The journal is titled *JACET Kansai Journal* (JKJ).

3. Journal contents

JKJ publishes submitted papers, invited papers, and other works.

4. Form of publication

JKJ publishes simultaneously in print and electronic form. The electronic version will be published using the J-STAGE platform operated by the Japan Science and Technology Agency (JST).

5. Publication administration

JACET Kansai Chapter establishes the JKJ Editorial Committee to publish JKJ.

6. Publication expenses

JACET Kansai Chapter bears the publication expenses of JKJ.

7. Submission guidelines

The JKJ Editorial Committee determines submission guidelines and procedures for JKJ.

8. Amendment

Amendment of this Publication Policy (Japanese version) will be subject to approval by the JACET Kansai Chapter Executive Committee. The English version will conform to the Japanese version.

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Established December, 2008
Revised March 7, 2015
Revised December 1, 2017
Revised March 9, 2024
Revised April 1, 2025

『JACET 関西支部紀要』（JACET Kansai Journal）投稿要領

（2025 年 4 月 1 日改定）

第 1 条　投稿者の要件

1 項　投稿者は投稿時において JACET 関西支部会員でなければならない。

2 項　ただし，第 2 著者以下は，他支部に所属する JACET 会員であってもよい。

3 項　投稿者および連名著者に学会費の未納がある場合，投稿は受理されない。

第 2 条　投稿原稿の要件

1 項　他誌に投稿中もしくは他誌に掲載済みの原稿の投稿は認めない。

2 項　同一人物を第 1 著者とする複数の原稿の投稿は認めない。

3 項　各種学会等での口頭（ポスター）発表に基づく原稿は審査対象となるが，原稿末尾に口頭（ポスター）発表の事実を正確に記載するものとする。

第 3 条　投稿原稿の種別

1 項　投稿原稿は，大学等における英語教育およびその関連分野に関わる内容のものとする。

2 項　投稿原稿は下記の 4 種類とする。

(1) 研究論文（前項で定める分野に関する学術論文。関連する先行研究に基づき，適切な研究手法を用いて，実証的または理論的に新しい発見や洞察を提供するもの）

(2) 研究ノート（前項で定める分野に関する簡易な学術報告。理論・研究方法・内容において妥当性があり，今後の発展に期待が持てるもの）

(3) 実践研究論文（大学等における英語教育の実践研究に関する論文。授業改善やカリキュラム改革などの実践について，先行事例または理論的な背景を踏まえた理由づけと，具体的根拠を持った実践の記述や省察を提示することにより，教育改善や実践研究の発展に寄与する知見を提供するもの）

(4) 実践ノート（大学等における英語教育の実践報告）
（前項で定める分野に関する簡易な実践報告。授業改善などの実践について，先行事例または理論的な背景を踏まえた理由づけと，具体的根拠を持った実践やアイデアを提示することにより，教育改善や実践の発展に寄与する知見を提供するもの）

(5) SIG 報告　（SIG での研究活動報告）

第 4 条　投稿原稿の分量

1 項　投稿原稿の分量は以下の通りとする。

(1) 研究論文（20 ページ以内）

(2) 研究ノート（15 ページ以内）

(3) 実践研究論文（20 ページ以内）
(4) 実践ノート（15 ページ以内）
(5) SIG 報告（6 ページ以内）

2項　投稿原稿の分量には，タイトル，概要，キーワード，引用文献，図表などをすべて含むものとする。

3項　紀要編集委員会による書式等の修正指示をふまえて修正を行う場合も，1 項に定める制限を超えないこととする。

第 5 条　投稿原稿の作成

1項　使用言語は英語または日本語とする。

2項　投稿原稿の執筆にあたっては，紀要編集委員会が作成する当該年度の投稿用テンプレートを使用し，テンプレート記載と書式チェックリストのルールに厳密に従うこととする（テンプレートやチェックリストについては，JACET 関西支部ウェブサイトを参照のこと）。投稿時には，原稿とともにチェックを終えたチェックリストも提出する。

3項　投稿原稿において，投稿者の氏名や所属，また，本人が特定できる引用文献や謝辞などは一切記載しないこととし，これらが入るべき場所に同等量の空行を挿入しておく。

第 6 条　投稿の方法

1項　投稿者は，投稿に先立ち，JACET 関西支部ウェブサイト上のオンライン投稿フォームより必要事項を入力し，送信する。

2項　投稿者は，期日までに，(a)投稿原稿(MS Word ファイル)と(b)その PDF ファイルおよび(c)書式チェックシートの計 3 ファイルを紀要編集委員会事務局宛に送信する。

3項　前項で定める送信メールの件名は「JACET 関西支部紀要投稿：氏名（所属先大学等名）」とする。また，メール本体に氏名・所属・職名・原稿題目・メールアドレスを明記する。

第 7 条　投稿原稿の受理

1項　紀要編集委員会は，投稿された原稿の書式等を確認し，必要に応じて，修正・再提出を求める場合がある。

2項　修正を求められた場合，投稿者は，別途指定する期日までに修正原稿および修正報告書を提出する。期限に遅れた場合は投稿を辞退したものとみなす。

3項　紀要編集委員会は，前条に基づく修正が不十分であると判断した投稿原稿を不受理扱いとすることができる。

第 8 条　投稿原稿の審査

1項　研究論文，研究ノート，実践研究論文，実践ノートについては，原則として 3 名の査読委員による査読を行い，その結果をふまえ，紀要編集委員会において採否の判断を行う。

2項　1 項に定める審査の過程で原稿種別の変更を求める場合がある。

3項　1項に定める審査の過程で原稿内容の修正を求める場合がある。この場合，投稿者は，指定された期日までに修正原稿および修正報告書を提出する。期限に遅れた場合は投稿を辞退したものとみなす。

4項　SIG 報告については，査読委員による査読は行わず，編集委員会において投稿要件と内容の確認を行い，採否の判断を行う。

5項　4項に定める内容の確認の過程で所定の修正を求める場合がある。

第 9 条　投稿原稿の著作権

1項　『JACET 関西支部紀要』に掲載された原稿の著作権は本学会に帰属する。

2項　投稿者等が，『JACET 関西支部紀要』に掲載された自身の原稿の複製・転載・公開を行おうとする場合は，事前に本学会の承認を受けることとする。

3項　前項により原稿の複製・転載・公開を行う場合は，「本論文の著作権は一般社団法人大学英語教育学会に帰属する」旨を明記するものとする。

4項　投稿者の所属する大学等が，『JACET 関西支部紀要』に掲載された原稿を機関レポジトリ等に収録しようとする場合は，事前に本学会の承認を受けることとする。

5項　投稿者は，投稿原稿が採択・掲載された場合，上記の 1 項〜4 項を了承したとみなす。

第 10 条　本要領の改廃

本要領の改廃は紀要編集委員会において行う。

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2005 年 6 月制定
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2017 年 12 月 1 日改定
2018 年 5 月 5 日改定
2019 年 11 月 11 日改定
2022 年 6 月 18 日改定
2025 年 4 月 1 日改定

JACET Kansai Journal Submission Guidelines

(Revised April 1, 2025)

I. Requirements for contributors

1. Authors must be JACET members.
2. If the first author is a Kansai Chapter member, coauthors can be JACET members of other chapters.
3. Manuscripts can be submitted by Kansai Chapter members in good standing who have paid their dues for the current year.

II. Requirements for manuscripts

1. All manuscripts must be original and must not have been published elsewhere, nor be under consideration for publication (including overseas journals).
2. Only one manuscript can be submitted by each contributor as the first author.
3. If the research has been presented orally or as a poster and this is so indicated, the manuscript can be considered for publication. However, presentation details (location, date, and name of conference) must be included in the submission.

III. Manuscript type

1. Manuscripts should be related to research on English education at the tertiary or other levels. Manuscripts regarding other relevant areas are also accepted.
2. Four types of manuscripts will be accepted for submission:
   (1) Research Papers: Academic papers concerning any research field(s) stipulated in III-1, which contain sufficient review of existing literature, employ appropriate research methods, and provide new empirical or theoretical findings/insights;
   (2) Research Notes: Short academic reports concerning any research field(s) stipulated in III-1, with theoretical, methodological, and content validity that demonstrates the promise of future research progress.
   (3) Practitioner Research Papers: Academic papers related to practical research on English education at the tertiary or other levels, which contain sufficient information of theoretical background or previous practice examples, offer innovative practices or provide concrete evidence to help promote a deeper understanding of practices, and thereby contribute to educational improvement and practical research development;
   (4) Practitioner Notes: Short academic reports related to teaching English pedagogy at the tertiary or other levels, which contain theoretical background information or previous practice examples, offer innovative practices or ideas that contribute to educational

improvement and practice development.

(5) SIG Reports: Short reports about research activities in SIG.

IV. Manuscript length

1. Manuscript length should be as follows:
   (1) Research Paper—no longer than 20 pages;
   (2) Research Note—no longer than 15 pages;
   (3) Practitioner Research Paper—no longer than 20 pages;
   (4) Practitioner Note—no longer than 15 pages;
   (5) SIG Report—no longer than 6 pages
2. Manuscript length includes title, abstract, keywords, references, and any figures, tables, or other materials.
3. Revised manuscripts cannot exceed the manuscript length stated above.

V. Manuscript formatting

1. Manuscripts can be written in either English or Japanese.
2. All manuscripts should be prepared using the current template and format checklists prepared by the *JACET Kansai Journal* (JKJ) Editorial Committee (For the template and checklists, please see the JACET Kansai website). Upon manuscript submission, the checklist should also be submitted.
3. All manuscripts should be prepared without the author name(s), affiliation(s), or Acknowledgments which might reveal personally identifiable information. Leave an equivalent amount of space for adding the information later.

VI. Submission

1. All contributors must complete a submission form on the JACET Kansai website.
2. All contributors must send three files by email to the JKJ Editorial Committee office: (a) the manuscript as an MS Word document, (b) an additional copy as a PDF, and (c) the format checklist prepared by the JKJ Editorial Committee.
3. All contributors must use the following subject item template for the email message: Paper submission to JACET Kansai Journal: Corresponding author name (corresponding author affiliation). Also, the email message should include the following information: Author name(s), author affiliation(s) and position(s), manuscript title, and author's email address.

VII. Acceptance of manuscripts

1. The JKJ Editorial Committee may request contributors to revise their manuscript.
2. Contributors must submit their revised manuscripts along with revision notes by the deadline.

The JKJ Editorial Committee does not accept late submissions.

3. Failure to follow the JKJ Editorial Committee's requirements could result in a rejection of the submission.

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1. Research Papers, Research Notes, Practitioner Research Papers, and Practitioner Notes are subject to peer review by at least three scholars. The JKJ Editorial Committee will decide approval of manuscripts based upon the results of the peer review.
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3. During the review process, the JKJ Editorial Committee reserves the right to request the revision of manuscripts. Contributors' failure to submit by the deadline will be considered a withdrawal.
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X. Amendment

Amendment of these Submission Guidelines (Japanese version) will be made by the Editorial Committee of the *JACET Kansai Journal*. The English version will conform to the Japanese version.

———————————————————————————————————————

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Revised June, 2007
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Revised March 8, 2014
Revised February 24, 2016
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Revised May 5, 2018
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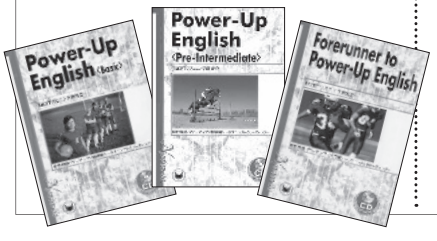

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