



Castledown

 OPEN ACCESS

Australian Journal of Applied Linguistics

ISSN 2209-0959

<https://www.castledown.com/journals/ajal/>

Australian Journal of Applied Linguistics, 6(2), 114–129 (2023)

<https://doi.org/10.29140/ajal.v6n2.1056>

The Academic Literacy Journey of Student Writers at Transition to an English Medium Instruction (EMI) University Programme in Japan



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Abstract

English Medium Instruction (EMI) has spread far and wide in recent years, becoming a prominent feature of higher education globally. One area of research is devoted to exploring how students cope with the transition to EMI university programmes. The present study traces the academic literacy challenges of 40 1st year EMI social science students during their initial 14-week academic writing preparatory course at a university in Japan. A mixed-methods approach was used to chart changes in student perceptions of academic literacy challenges via questionnaires, interviews, and written journals. Data revealed that academic writing remained challenging for all participants, with no significant change discernible in student perceptions of academic writing difficulties across the four time-points. Qualitative content analysis revealed that the journey towards academic literacy was a trying one. Students felt unprepared for the demands of academic writing, given the high-stakes exam focus of high school English curricula in Japan. The study underlines the importance of EMI support provision that is sufficiently tailored to the demands of academic literacy development.

Keywords: English medium instruction; EAP, ESP; academic literacy; academic writing

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Introduction

English Medium Instruction (EMI) refers to “the use of the English language to teach academic subjects (other than English itself) in countries or jurisdictions where the first language (L1) of the majority of the population is not English” (Macaro, 2018, p. 9). EMI courses and programmes are a response to and channelling of internationalisation processes impacting higher education worldwide (Sahan et al., 2021a). Japan, for example, is considered a context in which EMI is ‘surging’ (Galloway et al., 2022). As a result of various governmental support initiatives EMI programmes are now offered at around 40% of universities in Japan (Bradford et al., 2022). While the scale and scope of EMI has left researchers playing catch up (Macaro, 2018), a picture is emerging of the language-related difficulties of transitioning to EMI university study. Research indicates that many university students have little prior exposure to English-medium classes at high school (see Curle et al., 2020) nor much experience of writing in L2 English (Yasuda, 2014). This can make for a demanding adjustment at university (Richards & Pun, 2021). Studies on school-university ‘transition’ indicate that writing academically is often a key difficulty for students entering EMI programs (Curle et al., 2020), and an academic skill students tend to desire help with (Doiz et al., 2019). Further research is required into the nature, strength, and development of EMI students’ academic writing skills, and how the journey towards greater academic literacy unfolds during the EMI transition period.

Background

Students can often enrol on EMI programmes despite relatively low English language proficiency (Curle et al., 2020). This is often the case in Japan, with institutions setting entry requirements purposively low as a means of boosting applications (see Irie, 2019). Linguistic issues can often make EMI study particularly heavy-going for students in Japan (Curle et al., 2023). Recent government initiatives have sought to improve Japanese students’ practical English abilities (Noguchi, 2017). However, English language instruction at high school geared towards the translation, grammar, and reading comprehension skills needed for high-stakes university entrance exams (Kikuchi, 2006). Consequently, writing has traditionally been a neglected skill in Japan’s English language school curricula (Yasuda, 2014; Sasaki, 2016). Tellingly, school students have limited exposure to writing multiple paragraph compositions (Kobayashi & Rinnert, 2002) and very little instruction in it (Hirose, 2005), a deficiency that may make academic writing on entering university particularly challenging. Kobayashi (2002) found that of the major EFL textbooks use in Japanese high schools, translation tasks (41.4%) and controlled writing (33.2%) far outweighed activities geared towards free composition (13.1%). Such studies may be somewhat dated now given the raft of initiatives encouraging the fostering of more practical English skills. However, Glasgow and Pallor’s (2014) study of six high school English textbooks found the pedagogical emphasis within the material largely unchanged over a 15-year period despite government initiatives emphasizing a more communicative approach. Findings revealed grammar and translations textbook activities still predominated and in only one of the recent textbooks was a one-paragraph composition exercise added to each unit. It is perhaps unsurprising that Yasuda (2014) found that 72% of students from six Japanese universities ($n = 481$) felt unprepared for university written tasks. This highlights the potential gravity of issues facing ‘pre-experienced’ learners (Basturkmen, 2017) at transition to EMI university programmes.

A growing awareness of students’ language-related difficulties underlines the necessity of language support geared towards equipping EMI students with sufficient academic literacy to pursue EMI study (Galloway & Ruegg, 2020). Academic literacy is understood as “the ability to communicate competently in an academic discourse community” (Wingate, 2018, p. 350). A small but growing body of research points towards academic writing as being among the most challenging aspect of academic literacy for EMI students (see Curle et al., 2020). Two studies stand out as pertinent.

Evans and Morrison (2011) examined students' transitional challenges over a three-year EMI degree at a Hong Kong university using a 7-point Likert scale 45-item EMI Challenges Scale conducted throughout their undergraduate degree tracking perceptions of difficulty in academic listening, speaking, reading, and writing. Generally, the language-related challenges decreased over their university degree. Writing skills were the greatest challenge students faced, particularly using an appropriate academic style and expressing ideas within essays in correct English. Inadequate English vocabulary was a serious impediment (Evans & Morrison, 2011: 206). Aizawa & Rose (2020) revealed the cruciality of 'soft-EMI' exposure prior to embarking on an EMI university degree in Japan. Participants from an EMI programmes at a university in Tokyo ($n = 103$) complete the EMI Challenges Scale developed by Evans and Morrison (2011b). Data revealed that the school-university transition was somewhat smoother if students had study abroad experience. Participants who had English mediated English classes at high school also achieved a larger receptive and productive vocabulary size than their peers who had only Japanese-medium English classes. In terms of academic writing, interviews revealed that slow production speed, poor essay organization skills, insufficient vocabulary knowledge, and incorrect grammar were the key challenges felt (Aizawa & Rose, 2020).

Despite a growing body of research what is lacking descriptive richness of the real-time, week-to-week struggles, doubts, adjustments, setbacks, and breakthroughs experienced by EMI students in building academic literacy. The present study strives for a thick description of the lived reality that can be *applied* to EMI 'on the ground'.

Method

The current study explores the following research questions (RQ):

- RQ1:** *What writing skills do students perceive as difficult in developing their written academic literacy at transition to full EMI courses?*
- RQ2:** *How do students' perceptions of the difficulty of academic literacy development change over one semester?*

A longitudinal mixed methods design was chosen, aiming at a "deeper, broader, and more insightful" analysis (Greene, 2015, p. 614) thereby strengthening the integrity of data produced (Creswell, 2022). Questionnaire data was collected at four time-points and interview data at three time-points. In addition, the study draws on nine journal entries completed by all participants across the semester. This study is focused on the first semester of an EMI programme, a period when transitional challenges may be most severe (Aizawa & Rose, 2020).

Forty first-year undergraduates (aged 18–19) from a social sciences EMI degree scheme at a university in Tokyo agreed to participate in the study (see Table 1). All participants were L1 Japanese speakers with six years of L2 English language instruction at L1 Japanese high schools. Participants took an initial Computerized Assessment System for English Communication (CASEC) test upon enrolment. The majority tested at CEFR B1 level ($n = 21$) and B2 ($n = 15$), but 10% of participants ($n = 4$) were A2 level. Students complete a year-long preparatory curriculum of EAP courses before starting EMI courses in their second year. All freshmen take two academic writing classes per week during their first university semester, alongside academic reading, listening, and speaking classes.

The study analyses the following sets of data, which were collected at various points during the first semester:

- EMI Writing Challenges Scale at four time-points ($n = 40$)

- participant journal entries completed at nine time-points ($n = 40$)
- three semi-structured interviews with nine students at three time-points ($n = 9$)

The *EMI Writing Challenges Scale* was administered in Weeks 2, 6, 9, and 13 of a 14-week semester. The 23-item scale (see figure 1) was adapted from the 15-item Writing Challenges scale used in seminal EMI transition studies (e.g., Evans & Morrison, 2011; Aizawa & Rose, 2020). Eight additional items (16–23) were added as they were considered important aspects of academic literacy, for example, item 23 on specialist academic vocabulary. The additional items were chosen based on consultation from 10 EAP and content faculty members of the institution, which was considered vital to ensure internal validity (see Thompson, 2020). The survey was piloted with 20 students from a previous cohort of the same EMI programme. The survey was then administered to the 40 participants in the current study electronically via *Qualtrics*. The scale was evaluated for internal reliability using Cronbach's alpha coefficient procedure, showing a value of .97 (time-point 1); .94 (time-point 2); .95 (time-point 3); and .97 (timepoint 4). Participants were asked to indicate the degree of difficulty in mastering different aspects of academic writing by choosing a numbered Likert-scale response, ranging from 1 (very difficult) to 7 (very easy).

Descriptive statistics were produced – both composite mean score for the perceived ease of academic writing overall and mean scores for each writing skill (e.g., using paraphrasing and summarising, writing the reference list, etc.). This data was analysed in terms of the perceived ease of academic writing overall and perceived ease of each skill (RQ1). A repeated-measures ANOVA (i.e., analysis of variance) was conducted to gauge the trends in perceived writing difficulties over one semester (RQ2).

Nine journal entries of 200–300 words were completed by participants through the semester, with all agreeing to allow their journal entries to be used in the reported findings. The regular recording and reflection on everyday experiences and thoughts over the semester provided a “contextualized and individualized account” (Rose, 2019, p. 349). Journal prompts targeted their perceptions of their writing development. ‘Interval contingent’ prompts probing perceptions and beliefs at a key stage (e.g., the halfway point, the final week). For instance, the following prompt explored feelings at the end of the semester: *How difficult is writing university essays compared to your first week at university* (Week 13, Journal 8). “Event contingent” journal prompts attempted to capture feelings, views, and experiences of a particular event (e.g., a new skill practised, a graded written task returned), as close to the corresponding class or homework activities as possible (Rose, 2019). For example. *How do you feel about the difficulty of English academic writing after you got your feedback and grade for your first written task?* (Week 5, Journal 5).

Interviewees ($n = 9$) were selected from an ‘information-oriented’ standpoint (Brinkmann, 2013), to capture the experiences of students of differing proficiency levels, with interviewee demographics

Table 1 Participant demographics ($n = 40$)

Variable	Survey/Journal Participants ($n = 40$)			Interview Participants ($n = 9$)		
	Group	n	Ratio	Group	n	Ratio
Gender	Female	23	57%	Female	6	66.6%
	Male	17	43%	Male	3	33.3%
English proficiency level (based on CASEC score)	A2	4	10%	A2	1	10%
	B1	21	52.5%	B1	4	45%
	B2	15	37.5%	B2	4	45%

broadly reflecting those from the wider sample (see Table 1). A series of three semi-structured interviews with each of the nine interviewees were conducted during the semester, using prompts/questions from Aizawa and Rose (2020), such as “Which aspects of academic English would you like to improve the most? Why?” and “What are some of the difficulties in taking university courses in English?” Interviewees were assured of their anonymity as participants. Interviews were conducted in remote format due to Covid-19 restrictions and transcribed verbatim. To aid readability, grammatical errors have been corrected in the illustrative examples.

A *qualitative content analysis* was conducted on journal and interview data, aiming at a “context-sensitive interpretation of data” (Selvi, 2019: 443). Conscious of the need to strive for applicability of evidence across contexts, the coding process was abductive. Initial deductive coding was conducted via categories from existing research and the research questions (i.e., perceived writing difficulties, discussion of the influence of L2 writing experience at school, language proficiency as predictor of degree of perceived difficulty). Themes then emerged inductively from codes generated. As the coding process evolved, codes were subject to revision (Miles, Huberman, & Saldana, 2019).

Results

RQ1: What writing skills do students perceive as difficult in developing their written academic literacy at transition to the university EMI programme?

The 23-item EMI Writing Challenges Scale was conducted over four time-points during participants’ first EMI university semester. The lower the score on the 7-point Likert scale, the more language-related difficulty was experienced (i.e., less ease); conversely the higher the score, the more ease (i.e. more ease) was felt by students with aspects of academic writing. As Table 2 shows, the low mean scores at each time point reveal that academic writing was a demanding and persistent issue for EMI freshmen participants. Overall, the aggregate “mean of means” indicates that students experienced a high level of language-related challenges over their first EMI semester ($M = 2.68$, $SD = .737$).

Differences in the degree of difficulty of certain aspects of academic writing was notable when individual items were analysed (see Figure 1). The difficulty of gaining and using academic vocabulary ($M = 2.23$, $SD = 1.039$) and specialist social science vocabulary ($M = 2.11$, $SD = 1.047$) was the most challenging aspect of academic writing over the semester, as was using appropriate academic style ($M = 2.19$, $SD = 1.014$). The difficulty of writing an appropriate title was consistently the aspect of academic writing students struggled with the least, although it was not considered ‘easy’ ($M = 3.51$, $SD = 1.365$). Students also found using professor’s comments/feedback to improve their essay a less difficult challenge ($M = 3.36$, $SD = 1.325$), although once again, this rating hovered just beyond the

Table 2 Descriptive statistics of EMI Writing Challenges Scale, Time 1–4 ($n = 40$)

	Mean	SD	Median	Min	Max	Range	Skew	Kurtosis
Perceived difficulty of academic writing (Time 1)	2.37	.94	2.22	1.00	5.09	2.17	1.12	1.23
Perceived difficulty of academic writing (Time 2)	2.81	.82	2.59	1.43	4.65	3.22	.26	–.86
Perceived difficulty of academic writing (Time 3)	2.65	.78	2.52	1.00	5.04	4.04	.60	1.17
Perceived difficulty of academic writing (Time 4)	2.88	1.03	2.89	1.00	5.78	4.78	.42	.39

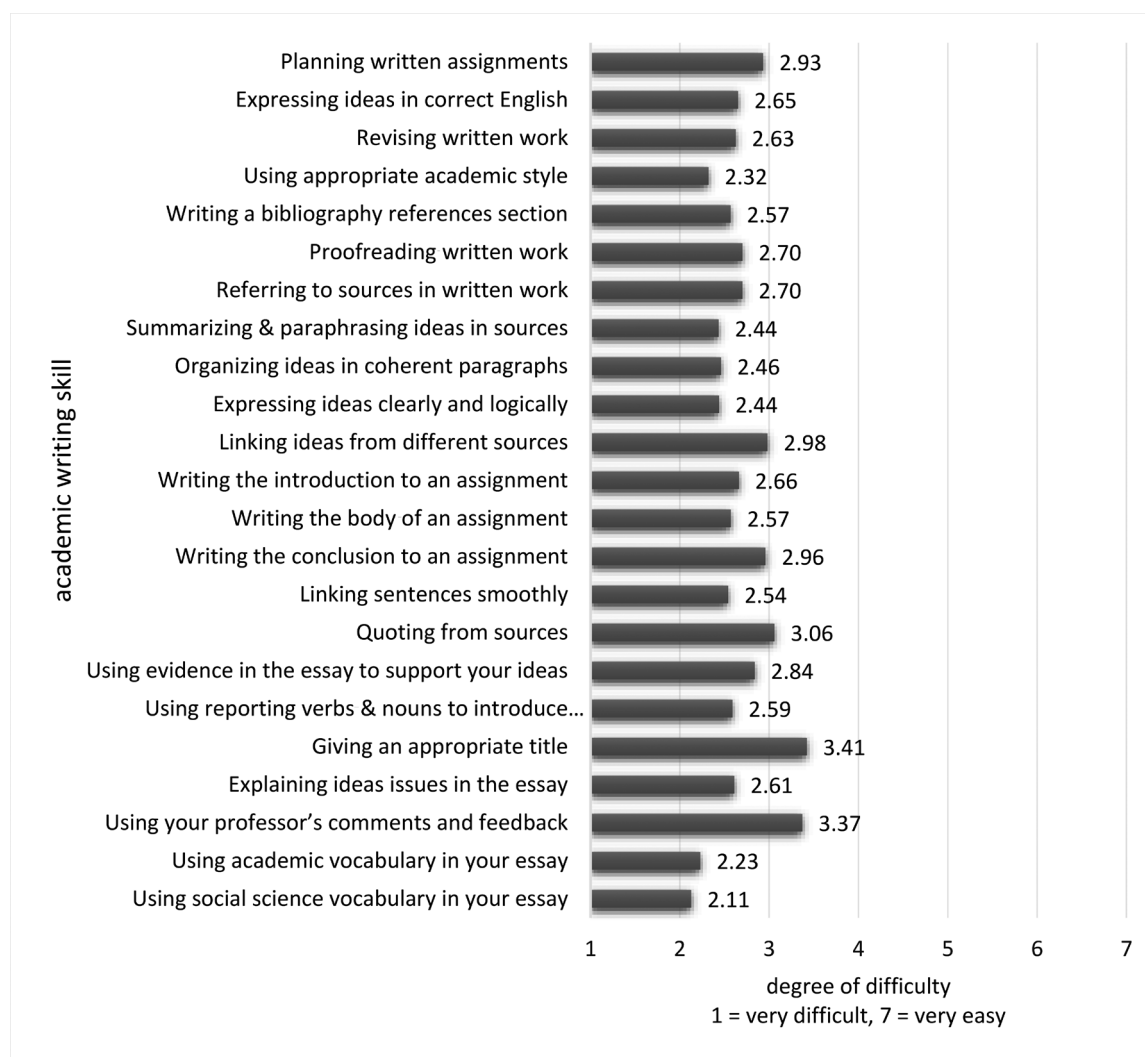


Figure 1 Aggregate perceived ease of academic writing skills.

‘somewhat difficult’ point. Overall, 20 of the 23 writing skills had a mean between 2.11 and 2.98, indicating a generally high degree of perceived difficulty in relation to academic writing. Only three skills (quoting, using an instructor’s feedback, and giving an appropriate title) had mean scores between 3.06 to 3.41. Broadly, the data reveals degrees of difficulty rather than levels of ease surrounding perceived writing challenges.

Findings from the interviews and journals help delineate students’ adjustment to the demands of EMI study, thereby supplementing the quantitative findings. Key themes are outlined in Table 3 (for interviews) and Table 4 (for journals) with a count of how many students referred to each theme. Following Selvi (2020), this technique establishes the pervasiveness of themes in qualitative data, then complemented and clarified through relevant excerpts. Excerpts include CEFR proficiency level and other important variables (e.g., mean score, CEFR level) when appropriate.

Overall, data revealed that all the nine students interviewed struggled with the initial adjustment to an EMI environment. A common theme in Interview 1 was the change in pedagogical focus and style: “In high school, most of teachers told us how to write assignments and useful words, but in college, university professors only tell us the topic” (Student 8, B2, “challenges” mean = 3.20). Granted, this adjustment to different pedagogy all university freshman students experience whatever the medium

Table 3 *Categories and themes of semi-structured interviews (n = 27)*

Categories	Themes	References
Vocabulary	Novelty of academic vocabulary	12
	Difficulty of academic vocabulary	10
	Desire to gain academic vocabulary	10
	Desire to gain social science vocabulary	8
Paraphrasing/Summarising	Novelty of paraphrasing/summarising	11
	Confusion about paraphrasing/summarising	8
	Importance of paraphrasing/summarising	8
JMI high school English	Attributing problems to high school pedagogy	10
	Attributing problems to lack of proficiency	7
Academic style	Novelty of academic style	9
	Confusion about academic style	5
Citation	Confusion about citation style	4
	Importance of citation style	3
Evidence use	Novelty of using evidence in written tasks	4
	Importance of using evidence	2

of instruction. However, it was felt especially keenly given the difficulties of coming from high school English classes which the medium of instruction is often L1 Japanese and the L2 English textbook features extensive L1 guidance and translation.

Interviewees mentioned how exam technique and memorisation were largely irrelevant to EMI university study (n = 10) which compels students “to understand the content of class and express my own idea about them” (Student 3, B1, m = 2.92). Another interviewee (Student 5, B1, m = 2.88) echoed this view, “the most challenging element of written assignments in colleges is students are not required to answer the remembering answers but thinking out the answer”. This suggests that honing high-stakes exam skills does not provide much foundation for developing “high stakes” academic literacy required of EMI university study.

In their journals students stated their lack of experience in writing longer English compositions (n = 21). This was most coded journal entry concern (see Table 6) not referenced in the Challenges scale. This was explained through the high-stakes exam pedagogical focus at high school. As Student 4 (12, m = 2.76) summed up in journal, “I did written assignments to pass the entrance exam” with exam questions typically requiring only a response of about 100 words. Another journal writer outlined the brief of a high school English language student: “At high school, students were just reading textbook, answer the questions, and memorize words for their homework” (Student 6, B1, m = 2.57).

The need for specific vocabulary to articulate opinions and ideas within written tasks was a persistent concern to many students in interviews (n = 10) and journals (n = 27). Quantitative data shows that using academic vocabulary (m = 2.23, SD = 1.03) and social science vocabulary (m = 2.11, SD = 1.09) were the most difficult aspects of academic writing for students over their first university semester, and vocabulary issues were commonly cited in journals (see Appendix x). Students embarking on an EMI

Table 4 *Categories and themes of journals 1–9 (n = 360)*

Categories	Themes	References
Vocabulary	Novelty of academic vocabulary	36
	Difficulty of academic vocabulary	27
	Desire to gain academic vocabulary	10
	Desire to gain social science vocabulary	8
Source use	Difficulty of source use	31
	Confusion about citation style	20
	Confusion about source integration	14
Academic style	Difficulty of academic style	27
	Attributing problems to high school pedagogy	13
	Attributing problems to lack of proficiency	12
Paraphrasing/summarising	Importance of paraphrasing/summarising	23
	Attributing problems to high school pedagogy	16
	Attributing problems to lack of proficiency	12
Logical structure & complexity	Importance of logical structure	23
	Confusion about organising written tasks	13
	Complexity of compositions at university	9
Length of essays	Novelty of long written tasks	21
	Attributing problems to lack of proficiency	8
	Attributing problems to high school pedagogy	5
Time involved	Time involved to complete written tasks	147
	Time involved to plan & edit tasks	7
Using PC for written tasks	Difficulty of using PC	14
	Importance of developing PC skills	6
Workload	Amount of homework	12
	Difficulty of homework	9

degree were soon starkly aware of the need to accumulate vocabulary knowledge of a certain type and must routinely use it appropriately. Students mentioned that while high school English classes had equipped them with general vocabulary, they had little or no experience of academic vocabulary, and consequently, vocabulary concerns loomed large over their transition semester:

I thought I have English vocabulary to some extent because when I was in high school, I studied English vocabulary for long. But I feel it is hard now. In university, the vocabulary is more academic and difficult (Student 22, B1, m = 3.39)

[Using academic English] in our writing tasks is tough. When I do writing assignments, I usually take a look at the table of academic vocabulary. I know over half of words there, but I cannot use in my tasks. (Student 25, B2, m = 2.20).

As the semester progressed, students gained more of an understanding of the disciplinary community which they were part of. If academic English is no one's first language, the findings indicate it is doubly true of EMI students wrestling with it in L2 English. As one student commented in journal 5, "the sense of whether or not the words is suitable is not easy to understand for people who have another culture" (Student 2, B1, $m = 3.68$). The implication here is that students in transition to EMI university study struggle to decipher the nuances of academic and disciplinary language use. They are from another L1 culture but also from a distinct educational culture, that of high school.

For most students adopting an academic style was also among the most difficult aspects of writing at university ($m = 2.32$, $SD = 1.06$). Journal entries voiced the more convention-bound nature of academic writing. "I've come to realize that academic writing requires writing sentences that follow those rules. However, I am not accustomed to observing all of these rules now, and I find it difficult" (Student 14, A2, $m = 1.24$). Students expressed concern over the evidence-based style of academic essays. As an interviewee (Student 7, B2, $m = 4.08$) recognised in his second interview, "my opinion or thought alone are not enough in reports required at college. We also need to show some data based on objectivity." Another interviewee (Student 23, B2, $m = 3.70$) conceded, "we have to think deeper and wider about the theme than high school's assignments." This importance of evidence-based writing was widely recognised by students in their journals, but also admitted how ill-prepared they were for this. One student mentioned that "high school teachers don't want to teach this skill because it is difficult to explain, and they have a lot of other things to teach students". (Student 6, B1, $m = 2.57$). Broadly, journal entries acknowledged that EMI university study required different skills to those honed at high school. At "university, the content of learning becomes more specialized, and I have to find and solve problems myself using facts as evidence," which, she added, "makes me more confused about academic writing" (Student 9, B2, $m = 2.66$).

Broadly, two themes emerge from the qualitative findings. First, the demands of EMI study generally were a common and persistent worry for new EMI students during their university transition. Second, the magnitude of the adjustment journey confronting them due to the novelty of *academic* writing.

RQ2: How do students' perceptions of the difficulty of academic literacy development change over one semester?

Research question 2 sought to trace trends in perceived academic writing 'challenges' across a first EMI semester. Descriptive statistics (see p.38) indicated that challenges fluctuated ($M = 2.36$, $SD = 0.937$) from Time 1 to Time 2 ($M = 2.81$, $SD = 0.821$) to Time 3 ($M = 2.65$, $SD = 0.775$), to Time 4 ($M = 2.88$, $SD = 1.03$). A *repeated-measures* ANOVA (analysis of variance) was conducted between the four time-points to further explore such trends.

While some variables breach common estimates of data being highly skewed (± 1), a value of ± 2 is often considered acceptable in L2 data (Roever & Phakiti, 2018). Additionally, Shapiro-Wilks was run to determine whether the distribution of scores was significantly different from a normal distribution. The Challenges scores at Time 1, $D(40) = 1.47$, $p = < 0.001$, deviates from normal, being $p < 0.05$; however, Time 2, $D(40) = 9.59$, $p = 0.161$, Time 3, $D(40) = 0.969$, $p = 0.332$, and Time 4, $D(40) = .979$, $p = 0.641$ show the distributed scores for the other Time-points do not significantly differ from a normal distribution.

The data was thus deemed to be normally distributed, with no variables significantly skewed or kurtotic (± 2), ensuring that a repeated-measures ANOVA was appropriate to compare the challenges over the semester. Mauchly's Test of Sphericity indicated the assumption of sphericity had not

been violated, $\chi^2(5) = 39.90$, $p = < .001$. Therefore, a Greenhouse-Geisser correction was applied ($\epsilon = 0.606$). There were statistically significant changes in academic literacy difficulty over time, $F(1.818, 70.896) = 6.052$, $p = .005$, partial $\eta^2 = 0.134$, representing a small effect size. Only 13.4% of the overall variance was accounted for by the differences among the four time-points. A post hoc comparison using a Bonferroni adjustment showed that the perceived challenges between Time 1 and Time 2 experienced a reduction ($-.450$) ($p = 0.006$), as did Time 1 and Time 4 ($-.524$) ($p = 0.005$) and such a change was statistically significant ($p < 0.05$). However, perceived challenges between Time 3 and Time 4 ($-.223$) ($p = 0.06$) was not statistically significant ($p < 0.05$), meaning the data offers a partial rejection of the null hypothesis.

Overall, as Figure 2 illustrates, students experienced marginally less difficulty in the skills associated with academic written literacy at the end of the semester than at the beginning. This is not to suggest that the university EMI transition was smoothly marshalled and overcome, merely that the degree of difficulty associated with gaining academic literacy lessened somewhat, but this trend was neither uniform nor linear within the cohort. As the boxplots for each time-point indicate, perceptions of the difficulty of academic writing varied, particularly at Time-point 4, as shown by a widening in the standard deviation values for the mean scores at each time-point and the minimum and maximum scores at each time-point (see Table 2). As the boxplots indicate, at Time 4 although the perceived difficulty of academic writing had lessened somewhat overall ($m = 2.88$ compared to $m = 2.61$ at Time 3) there was much greater variation in the range of the degree of difficulty associated with academic writing. This implies that some students, the journey towards academic literacy was considered relatively less taxing, while for others it remained a very difficult prospect.

One key difficulty surfacing in the journal data was using sources within their final essay ($n = 31$). Some students noted the difficulty of selected sources and judging their appropriateness for researching and academic essay. “If I use wrong sources in essay, the content of essay will lack credibility, so I need a force to distinguish right from wrong to write a correct essay” (Student 26, B1, $m = 2.19$). Many more had real difficulty with using sources to support their arguments in their final essay. As one interviewee stated,

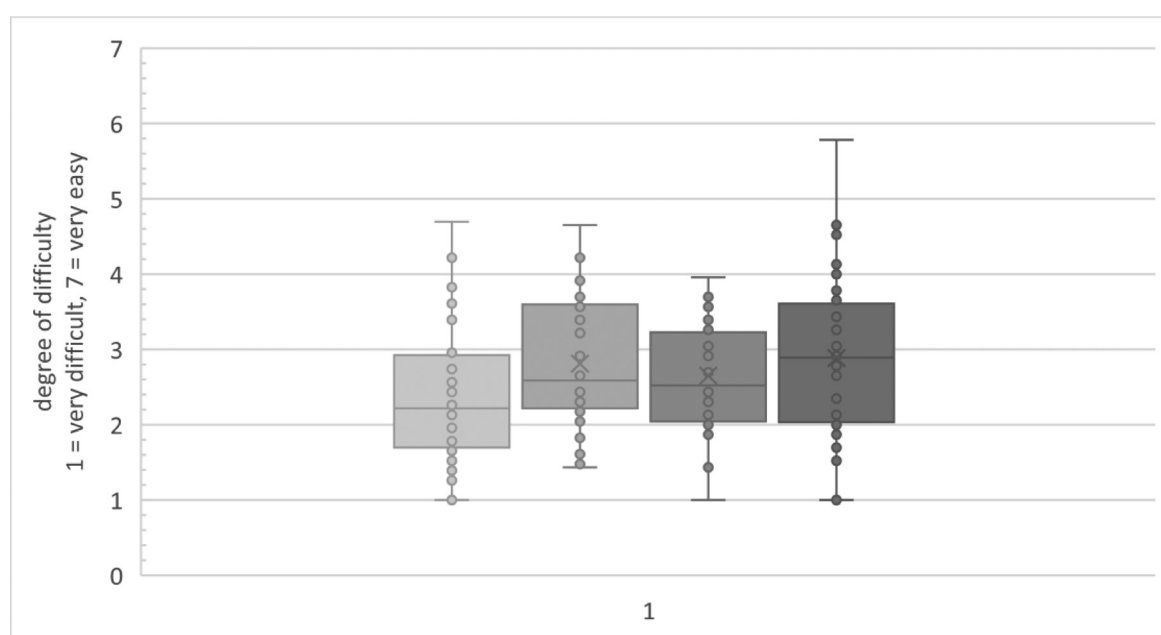


Figure 2 Perceived academic writing difficulty, time-points 1–4.

At high school, I did not have any opportunities to use sources for an essay, and I always wrote only my subjective ideas in essay, so I am not used to be using sources for an essay and I do not know how to use sources. Therefore, I feel aspects of using sources is very difficult (Student 8, B2, $m = 3.20$).

In journals many students expressed difficulties with paraphrasing and summarising skills ($n = 28$). Interestingly, paraphrasing was deemed more challenging than summarising. The latter skill had been integral to entrance exam preparation, so students appeared less daunted by it. However, paraphrasing was a common concern given the need to replicate the precise meaning of passages loaded with ideas and detail. As one student admitted in a journal entry, “I feel this aspect is the most challenging even in Japanese writing I found difficulties to do that so in English writing is more and more difficult” (Student 26, B1, $m = 2.19$).

A related difficulty voiced in journals was confusion over integrating sources ($n = 14$) and citing them correctly ($n = 20$). One student perhaps conveyed the feelings of the cohort in admitting that “how to cite information from outside was beyond what I had expected” (Student 31, B2, $m = 3.70$). At high school written compositions rarely required supporting evidence, so few participants had prior experience of citing sources. As the following two journal extracts reveal:

It is very hard for me to use different citation writing methods depending on the subject such as books, magazines, Internet articles, and personal tweets. When I did an assignment about using sources, I spent time for about 3 hours completing it and I don't know whether my work was good or not. (Student 9, B2, $m = 2.66$)

While summarizing and paraphrasing are not so challenging because I have myriad vocabularies and useful idioms in my brain, I think that it will seem to take the countless time for me to understand citation completely. (Student 8, B1, $m = 4.71$).

Overall, a slightly more nuanced picture emerges of academic writing literacy development over students' initial university semester. Academic writing skills remained broadly ‘difficult’ although some students appeared to be making the first steps towards some academic written literacy development. For others, the journey towards academic written literacy was perceived as more daunting.

Discussion

Numerous studies have established academic writing as a key difficulty for university students (e.g., Evans & Morrison, 2011; Aizawa & Rose, 2020; Shepard & Morrison, 2021; Kamasak et al., 2021). Yet such studies fail to illuminate the unfolding nature of writing challenges over time. Tracing the academic literacy journey of new university students requires that perceptions are tracking over numerous time-points rather than a one-time “snapshot.” The current study's longitudinal design illuminated how perceptions changed in degree as well as how the adjustment to university EMI study was *experienced* in terms of the language-related difficulties encountered. Of course, language-related difficulty is only one factor among many at play in the school-university transition. For instance, it is worth considering how different are the school and university environments, how conducive the relationship between instructors and students, and how exposed students were to L2 English-medium instruction at school (Macaro & Rose, 2023). The current study may therefore risk oversimplifying the student experience at transition: there are many complex adjustments occurring during the journey towards English-medium content courses. Yet the present study does offer certain useful pointers in making for a smoother transition to full EMI study.

Theme 1: The “rawness” of fledgling academic writers at the initial school-university transition

Findings consistently highlighted that gaining academic literacy is a hard-fought and incremental process in which accomplishments and doubts, and advances and apparent reversals are experienced.

One factor that made it so trying for participants in this study was the high-stakes entrance exam focus of the Japanese school curriculum. Students repeatedly referred to their unpreparedness for academic written tasks. This is hardly surprising given that writing is often sacrificed to the skills essential to high-stakes exam success (Sasaki, 2016). Students indicated that their L2 English staple diet at high school hardly included any free compositions, and if they did, were of a length far shorter than those expected at university. Findings corroborate those of Kobayashi (2002), with participants surprised at the level of academic literacy expected of them at university.

Of course, high schools should not be criticised unduly for focusing on the high-stakes entrance exams – students and their parents demand it. It is also worth remembering that the sole job of support courses at university is to prepare students for the rigours of EMI study, and not the responsibility of high school teachers. Yet the underlying issue, without attributing any blame, is that students may often enrol in EMI programmes deficient in certain L2 writing skills, making for a taxing transition to EMI content courses. Findings revealed that students entered the EMI programme in an especially ‘raw’ state regarding their academic skills and linguistic competence. As Hyland (2020, p. 27) points out, EAP instruction should raise consciousness of what is involved in academic literacy but “circumstances often require teachers to identify more register-level skills.” Support instructors may be pressed to instil the basics of written composition before the basics of academic writing, leaving inadequate class time for essential subject-specific writing skills. Many participants, for example, balked at the idea of producing a free-composition style 200-word entry as they had barely written more than a few sentences of English composition at high school. An alertness to just how “pre-experienced” (Basturkmen, 2017) those enrolling on EMI programmes might be ought to shape the nature of support provision (Galloway & Ruegg, 2020; Rose, 2021). Indeed, the severity of linguistic deficits may mean recalibrating EMI programmes to incorporate pre-session intensive writing courses to bridge more efficiently such a shortfall in basic writing skills.

Theme 2: Disciplinary-specific academic literacy most daunting for students

The current study highlights the importance of inducting students into their academic discipline studied. The academic subject studied shapes how language is used, what language-related problems are encountered, and how this shapes the language needs of students (Bolton & Kuteeva, 2012). It is precisely the text-heavy nature of social science essays requiring much synthesis and analysis and a balance of empiricism and interpretation (Hyland, 2006) which unnerved students as the semester progressed. Findings demonstrate the struggle to grasp the specificity of writing and how difficult it was for students to craft written tasks in an acceptable style. Yet as Evans and Morrison (2011, p. 395) point out, such “disciplinary acculturation takes much longer than a term to complete.” This was particularly true for the students in this study.

Findings revealed that specialised social science vocabulary was consistently among the most difficult challenges experienced by participants. All university students, L1 English speakers included, are faced with understanding—and using—the specialised vocabulary for their discipline, academic English after all is “no one’s first language” (Hyland, 2015, p. 57). The current study’s findings indicate that new students transitioning to EMI university programmes experience difficulties with vocabulary shortfalls and the demands of academic genre and tacit disciplinary conventions, which were revealed as persistent and nagging concerns. Participants in this study were seasoned general vocabulary

learners through high school in preparing for university entrance exams, but not vocabulary *users*, an important distinction. Nor had they done much writing in any genre beyond the short answers required in entrance exams. English for Specific Academic Purposes (ESAP) (Flowerdew, 2016) courses might provide a valuable stepping-stone for those making the transition to full EMI study (Rose, 2021; Prior, 2021), something the present study's more generalised EAP support programme failed to incorporate. This highlights the potential usefulness of concurrent support alongside EMI content courses (see Sahan et al., 2021b) in contexts where students require it. Findings from the present study suggest that the participants' rawness meant that a freshman year of EAP may still leave them with insufficient academic literacy for full EMI content study.

Theme 3: Illuminating the lived experience of EMI students at transition is an essential first step towards greater analytical richness

Adjustment to academic demands is required of all university students whether they are studying in their first or second language. However, the adjustment needed can be especially severe for those studying in an L2 with only limited competence in it - and very little exposure to it outside the classroom. This is particularly true of those participating in the current study, as it is for others enrolled in EMI programmes in Japan (Richards & Pun, 2021). The lived experience of many participants in this study hints at the brittleness of apparent academic literacy development during a 'bumpy' first semester. The first semester of university can be a tumultuous time culturally and academically wherever one studies. However, recent assertions that EMI students' experience academic literacy development much like their study abroad peers at Anglophone universities (e.g. Wingate, 2022) tends to too easily brush over the linguistic deficits and lack of exposure to academic literacy characteristic of many new students when starting EMI degree-level study at 'home' institutions. Their adjustment journey may occur on a far more pitted and hazardous road than many of those enrolled at Anglophone universities, given their likely linguistic deficiencies and academic naivety (Galloway & Rose, 2022). One limitation of the present study was that data was not gathered on the background of the participants. If exposure to school English-Medium English classes and study abroad experience makes the school-university EMI transition smoother, as Aizawa and Rose (2020) discovered, then knowing more about fledgling EMI students is imperative in designing and implementing support provision. We still do not know enough about those students joining EMI programmes, particularly as EMI expands in contexts which remain under-researched (Macaro & Rose, 2023). Another limitation is the short time-frame: the first semester appears a challenging one for EMI students, but future studies ought to explore trajectories over the long term, vital in grasping the wider implications of transition to EMI study. As Aizawa (2024, p. 30) underlines, the EMI transition is "not a one-time event but an ongoing process".

Conclusion

This study reveals that students at EMI transition often feel uneasy, confused, and unsure about their capabilities to succeed in L2 English-medium courses. For many students, the school-university EMI transition is a trying, often dispiriting experience, a journey not so much on a smooth *autobahn* as on an uneven, potholed road. This underlines how essential the role of academic language support in academic literacy acculturation is for those transitioning towards English-medium content courses. Such support should be designed and delivered sensitively to better address the needs of students who may not have the requisite skills or background to ensure a smooth transition to full EMI content study. Going forward, EMI research can benefit from exploiting the concepts and findings of EAP/ESP

research in delineating the ways and means of more tailored EMI support programmes that nurture the necessary literacy skills required in EMI study.

References

- Aizawa, I. (2024). Tracking the first-year experience in English medium instruction: A pre-post study of transitional challenges. *English for Specific Purposes*, 73, 20–32. <https://doi.org/10.1016/j.esp.2023.09.002>
- Aizawa, I., & Rose, H. (2020). High school to university transitional challenges in English medium instruction in Japan. *System*, 95, 102390. <https://doi.org/10.1016/j.system.2020.102390>
- Bolton, K., & Kuteeva, M. (2012). English as an academic language at a Swedish university: Parallel language use and the “threat” of English. *Journal of Multilingual and Multicultural Development*, 33(5), 429–447. <https://doi.org/10.1080/01434632.2012.670241>
- Bradford, A., Ishikura, Y., & Brown, H. (2022). Sustaining internationalization: English-medium programs in Japan. *International Higher Education*, (110), 15–16. <https://ejournals.bc.edu/index.php/ihe/article/view/14981>
- Brinkmann, S. (2013). *Qualitative interviewing*. Oxford University Press.
- Basturkmen, H. (2017). Developing writing courses for specific academic purposes. In J. Flowerdew & T. Costley (Eds.), *Discipline-specific writing: Theory into practice* (pp. 31–45). Routledge.
- Costa, F., & Mastellotto, L. (2022). The role of English for specific purposes (ESP) in supporting the linguistic dimension in English-medium instruction (EMI). *CLIL Journal of Innovation and Research in Plurilingual and Pluricultural Education*, 5(2), 37–52. <https://doi.org/10.5565/rev/clil.912>
- Curle, S., Ratkaine Jablonkai, R., Mittelmeier, J., Sahan, K., Veitch, A., & Galloway, N. (Eds.). (2020). English in higher education – English medium. Part 1: Literature review. In English in higher education – English medium British Council. https://www.teachingenglish.org.uk/sites/teacheng/files/L020_English_HE_lit_review_FINAL.pdf
- Curle, S., Lin, Y., & Aizawa, I. (2023). English medium instruction in Japan: changes and challenges faced by faculty and students. In P. Sah & F. Fang (Eds.), *Policies, politics, and ideologies of English-medium instruction in Asian universities: Unsettling critical edges* (pp. 33–47). Routledge.
- Doiz, A., & Lasagabaster, D., & Pavón, V. (2019). The integration of language and content in English-medium instruction courses: Lecturers’ beliefs and practices. *Ibérica*, 38, 151–175. <https://revistaiberica.org/index.php/iberica/article/view/96/51>
- Evans, S., & Morrison, B. (2011). Meeting the challenges of English-medium higher education: The first-year experience in Hong Kong. *English for Specific Purposes*, 30(3), 198–208. <https://doi.org/10.1016/j.esp.2011.01.001>
- Flowerdew, J. (2016). English for specific academic purposes (ESAP) writing: Making the case. *Writing & Pedagogy*, 8(1), 5–32. <https://doi.org/10.1558/wap.v8i1.30051>
- Galloway, N., & Rose, H. (2022). Cross-fertilisation, not bifurcation, of EMI and EAP. *ELT Journal*, 76(4), 538–546. <https://doi.org/10.1093/elt/ccac033>
- Galloway, N., & Ruegg, R. (2020). The provision of student support on English Medium Instruction programmes in Japan and China. *Journal of English for Academic Purposes*, 45, 100846. <https://doi.org/10.1016/j.jeap.2020.100846>
- Galloway, N., Sahan, K., & McKinley, J. (2022). ESP in surging EMI contexts. Available at *SRNN* <http://dx.doi.org/10.2139/ssrn.4291778>
- Greene, J. C. (2015). Preserving distinctions within the multi method and mixed method research merger. In S. N. Hesse-Biber & B. Johnson (Eds.), *The Oxford handbook of multimethod and mixed methods research inquiry* (pp. 606–615). Oxford University Press.

- Hirose, K. (2005). *Product and process in the L1 and L2 writing of Japanese students of English*. Keisuisha.
- Hyland, K. (2006). *English for academic purposes: An advanced coursebook*. Routledge.
- Hyland, K. (2015) *Academic publishing: Issues and challenges in the construction of knowledge*. Oxford University Press.
- Irie, K. (2019). An insider's view: Launching a university program. In H. Reinders, S. Ryan, & S. Nakamura (Eds.), *Innovation in language teaching and learning: The case of Japan* (pp. 211–232). Palgrave Macmillan.
- Kamaşak, R., Sahan, K., & Rose, H. (2021). Academic language-related challenges at an English medium university. *Journal of English for Academic Purposes*, 49, 100945. <https://doi.org/10.1016/j.jeap.2020.100945>
- Kikuchi, K. (2006). Perspectives: Revisiting English entrance examinations at Japanese universities after a decade. *JALT Journal*, 28(1), 77. <https://doi.org/10.37546/jaltj28.1-5>
- Macaro, E. (2018). *English medium instruction: Content and language in policy and practice*. Oxford University Press.
- Macaro, E., & Rose, H. (2023). Introduction to the special issue on English medium instruction: Areas of research needing urgent attention. *Studies in Second Language Learning and Teaching*, 13(2), 257–269. <https://doi.org/10.14746/ssllt.38274>
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2019). *Qualitative data analysis: A methods source-book*. SAGE.
- Prior, J. (2021). Innovative ESAP syllabus design: A means to address English-language problems in EMI programmes. In L. Mastellotto & R. Zanin (Eds.), *EMI and beyond: Internationalising higher education curricula in Italy*, (pp. 19–52). Bolzano University Press.
- Richards, J. C., & Pun, J. (2021). A typology of English-medium instruction. *RELC Journal*, 003368822096858. <https://doi.org/10.1177/0033688220968584>
- Roever, C., & Phakiti, A. (2018). *Quantitative methods for second language research: A problem solving approach*. Routledge.
- Rose, H. (2019). Diaries and journals: collecting insider perspectives in second language research. In J. McKinley & H. Rose (Eds.), *The Routledge handbook of research methods in applied linguistics* (pp. 348–359). Routledge.
- Rose, H. (2021). Students' language-related challenges of studying through English: What EMI teachers can do. In D. Lasagabaster & A. Doiz (Eds.), *Language use in English-medium instruction at university: International perspectives on teacher practice*, pp. 145–166. Routledge.
- Rose, H., & McKinley, J. (2018). Japan's English medium instruction initiatives and the globalization of higher education. *Higher Education*, 75(1), 111–129. <https://doi.org/10.1007/s.10734017-0125-1>
- Sahan, K., Mikolajewski, A., Rose, H., Macaro, E., Searle, M., Aizawa, I., Zhou, S., & Veitch, A. (2021a). Global mapping of English as a medium of instruction in higher education: 2020 and beyond. *Teaching English*. <http://www.teachingenglish.org.uk/article/global-mapping-english-a-medium-instruction-higher-education-2020-beyond>.
- Sahan, K., Rose, H., & Macaro, E. (2021b). Models of EMI pedagogies: At the interface of language use and interaction. *System*, 101, 102616. <https://doi.org/10.1016/j.system.2021.102616>
- Sasaki, M. & Hirose, K. (1996). Explanatory variables for EFL students' expository writing. *Language Learning*, 46(2), pp. 137–174. <https://doi.org/10.1111/j.1467-1770.1996.tb00643.x>
- Sasaki, M. (2016). English writing instruction in senior high schools: A historical ecological approach. In T. Silva, J. Wang, J. Paiz, & C. Zhang (Eds.), *L2 writing in the global context: Represented, underrepresented, and unrepresented voices* (pp. 84–109). Foreign Language Teaching and Research Press.
- Selvi, A. F. (2019). Qualitative content analysis. In J. McKinley & H. Rose (Eds.), *The Routledge handbook of research methods in applied linguistics* (pp. 440–452). Routledge.

- Shepard, C., & Morrison, B. (2021). Challenges of English-medium higher education: The first-year experience in Hong Kong revisited a decade later. In D. Lasagabaster & A. Doiz (Eds.), *Language use in English-medium instruction at university: International perspectives on teacher practice* (pp. 168–192). Routledge.
- Taguchi, N., & Naguma, N. (2006) Transition from learning English to learning in English: Students perceived adjustment difficulties in an English-medium university in Japan. *The Asian EFL Journal*, 8(4), 52–73.
- Thompson, G. (2020). *Exploring language teacher efficacy in Japan*. Multilingual Matters.
- Wingate, U. (2018). Academic literacy across the curriculum: Towards a collaborative instructional approach. *Language Teaching*, 51(3), 349–364. <https://doi.org/10.1017/s0261444816000264>
- Wingate, U. (2022). Student support and teacher education in English for academic purposes and English medium instruction: Two sides of the same coin? *Language Teaching*. Advance online publication. <https://doi.org/10.1017/S0261444822000465>
- Yasuda, S. (2014). Issues in teaching and learning EFL writing in East Asian contexts: The case of Japan. *Asian EFL Journal*, 16(4), 150–187.