Teaching and Evaluating Academic Writing: The Role of Literate Talk

Ellen Head

Miyazaki International University

Establishing authorship for the purpose of L2 writing evaluation has become problematic due to improvements in AI translation and generative AI since 2022. Literate talk, "the nature of talk that introduces educational concepts to students and provides discipline-specific ways of talking about those concepts" (Hammond, 2017), may help teachers to articulate a fresh approach to evaluating academic writing in order to counter the misuse of generative AI. Students' ability to talk about written work could become a supplement, supporting and validating their claim to authorship. This paper draws on data from three university students during their senior thesis advising sessions. Sessions were recorded and analysed to investigate how the instructor made intuitive judgments about the authenticity of authorship. The evidence used to support intuitive judgements of authenticity included not only the spoken performance in English but non-verbal cues and translanguaging as well as familiarity with the student's performance over time. 150 words

　2022年以降、AI翻訳や生成AIの向上により、L2ライティングの評価に際して、著者の確定が問題となっている。リタレート・トーク、すなわち「学問的概念を教育指導的なやり方で生徒に紹介し、それぞれの学問分野特有の話し方を生徒に伝える会話」（Hammond， 2017）は、生成AIの誤用に対抗するのに必要な、アカデミック・ライティングを評価するための新たなアプローチを明確にするのに役立つであろう。学生が、書かれたものについて話をする能力は、真の著者であるという主張を支持し検証する補助となりうる。本論文は、3人の大学生が卒業論文指導を受けた際のデータを基にしている。教官と学生のセッションは録音され、分析された。真偽性の直感的な判断を裏付ける証拠としては、英語による話し言葉のパフォーマンスだけでなく、非言語的な合図やトランス・ランゲージング（日本語と英語の組み合わせ）、さらには、学生のパフォーマンスについての長期的な評価も用いられた。

Due to the proliferation of generative AI and AI translation tools, it is becoming problematic to rely on an academic essay or thesis as the sole basis for high-stakes evaluation, for example at the end of a degree course. Whether or not to include AI-assisted writing in the goals of academic courses has been the focus of much discussion (see for example Sullivan, Kelley & MacLaughlan, 2023). Many universities in Japan rely on an extended essay, known as the senior thesis, as a component of the final evaluation of students. New approaches have been called for (Hsiao, Kijin & Chiu, 2023, Fjortoft, 2020). In a survey of Hong Kong teachers, Chiu (2023) found that teachers believed assessment will come to rely less on written work. The use of AI-detection software is unreliable due to the rapid development of generative AI, and has sometimes led to false accusations (Farelly & Baker, 2023, Rogerson, 2020). Could L2 students' talk about their written work substantiate their claim to authorship? Literate talk is "the nature of talk that introduces educational concepts to students and provides discipline-specific ways of talking about those concepts" and is characterised by a higher degree of "explicitness, connectivity and coherence" than conversational English. (Hammond, 2017, p. 116). "Multimodality" is envisaged by Hammond (2017) as a continuum from spoken output to written output, where the language at the spoken end is more context-dependent and active, and that at the written end is more reflective and independent of context. Using the notion of literate talk, it is argued that the degree of fit between the performance across modes can be taken as an indicator of academic integrity. This paper attempts to investigate this idea using transcripts of sessions with three senior thesis students.

Operationalizing "Literate Talk" as an Evaluation Approach in the Context of Japanese EAP/Senior Thesis

In the context of Japanese EAP classes and senior thesis writing, multimodal assessment may become necessary in order to guard against unprincipled, undeclared use of generative AI in extended writing assignments. As a teacher of EAP at an English-medium liberal arts university, I became concerned about misuse of translation software

during the year 2021. What kind of evidence could be used to determine the authenticity of students' engagement with (and authorship of) their work? The argument that AI output could easily be detected due to poor quality is no longer valid. Several scholars suggest that the future of assessment is multimodal combinations of skills such as speaking and writing. However there is not a great deal of research on multimodal assessment in Japan. Fjortoft (2020) explores the process of creating valid and reliable classroom assessments in Norwegian schools, and suggests that the sharing of good practice among teachers may help further the development of multimodal assessment. In this paper, I will explore writing-related talk through detailed interactions between me and three of my students during sessions focused on their writing. The project started out as an open-ended attempt to document my existing practice and search for suitable parameters to regularise and share it.

The methodological framework was influenced by Burns (1999) action research paradigm, which divides the stages of the project into exploring, identifying a focus, planning, collecting data, analysing and hypothesising (Burns, 1999, p. 38). The project was not carried out in neatly divided phases. Rather, hypothesising, observing students' writing and revision behaviours, talking to colleagues and senior students, and reading articles, went on concurrently. The following research questions emerged: (1) What are some of the features of the spoken interaction when learners talk about their research topic? (2) Could evidence from spoken performance be utilised to determine the authenticity of learners' authorial engagement with and responsibility for their work? (3) Would it be possible to design an "exit interview" which might help to validate students' authorship of their senior thesis? While one could not claim to know definitively whether a student had used AI tools in the creation of their work, maybe one could make a probabilistic judgment about whether their level and the knowledge of the topic correlated with the level and knowledge expressed in the thesis.

Hammond's Concept of Literate Talk

Hammond (2017) develops the concept of literate talk using parameters from systemic linguistics. The idea of "modes" and modal variation between spoken and written modes draws on sociocultural theory and highlights the importance of dialogic performance in learning academic skills. This model was created for the purpose of curriculum development in L1 contexts, but it offers a way to look for connections between students' output in spoken interaction with teachers, and their written output. Hammond explains that academic papers are less context dependent than other kinds of interaction. In contrast, when students are answering questions about their academic

paper in interviews, they should be able to provide details about the context and to find their way around their own reference list. If this were true, the ability to paraphrase, to provide elaborated answers, to make connections between their written arguments and their sources, could be considered criteria for judging the authenticity of a written piece. Additional perspectives and tools are needed to evaluate the interviews. The CEFR, in particular the *CEFR Companion Volume with New Descriptors* offers a framework which can be taken in conjunction with the notion of literate talk to analyse interactions in which students and teachers are talking about the student's academic text.

Tools from the CEFR Companion Volume Mediation Scales

The CEFR offers a rich resource for describing spoken performance and relating it to judgements about proficiency. In particular the Mediation Scales break down the skills involved in giving an oral explanation of one's specialist area, in a way consistent with the notion of literate talk. The Illustrative Descriptor Scales focus on "the way content is processed for the recipient", with reference to skills such as "linking to previous knowledge, adapting language and breaking down complicated information." (Council of Europe, 2020, 117-122). The CEFR also includes compensatory strategies such as translanguaging, in the resources which L2 learners might use to get their message across when explaining a subject they know about (p. 79).

Fluency Metrics

It is well known that a learner's performance may differ widely between different skills. (Verhoeven & De Jong, 1992). Variation will also occur between the performance on different tasks (Suzuki & Kormos, 2021, Kormos, 2023). Interview data could also be considered from the point of view of spoken fluency metrics such as those articulated in Suzuki and Kormos (2019) or Batty and Van Moere (2012). The impact of task complexity on fluency should be made allowance for when judging how students talk about their research topics. Kormos (2023) provides a useful guide to cognitive factors which underlie writing skills. She notes that for L2 writers, the complexity of linguistic demands place an additional burden on writers and therefore their attention to issues such as the overall structure and organisation of a piece is diverted when dealing with complex content. We should therefore be careful to allow sufficient time for students to consider any questions about the structure of their piece.

Participants

The learners were three Japanese university students of liberal arts in their final year, chosen because they had shown a high level of engagement with their thesis. Students are supposed to consult at each stage: the creation of the research proposal, the first 1000 words, second 1000 words and so on, up to the total of 4000 words due in the November preceding graduation. The students in this study were proactive and each seemed to have a deep personal connection to their topic, as explained below. The interviews were scheduled at the end of November 2023, coinciding with the date for the submission of the first full rough draft of the thesis. An explanation of my research and consent form in English and Japanese, were emailed to students and handed over for them to read and sign at the time of the interview. The interview was scheduled as part of a regular session focused on finishing their theses. These sessions varied in length according to the students' needs. The first 30 minutes of the interview was used for the analysis, although the whole interview was also listened to, to make sure the sample was representative of the participant's speaking. The chart below offers an overview of the participants and their topics.

Table 1
Participants, Topics and Number of Meetings About Their Thesis

Name	Mana	Hana	Haru
CEFR Level	B1-2	B1-2	B1
Thesis topic	Animal shelters and strategies to reduce the euthanasia of abandoned pets	School uniform and the implementation of excessively strict uniform rules	Rural depopulation: A comparison of strategies to deal with depopulation in Japan and Europe
Number of consultations (approx) Mandatory consultations: 5	About 12 times	8-9 times	About 6 times plus 2 times asking for comments by email

Participants' oral fluency ranged from B1 to B2 level in terms of the CEFR. All had TOEIC scores of 650 or higher. They received a coffee shop voucher as an incentive to participate. To preserve confidentiality, pseudonyms are used in this paper.

Method

The following questions were devised as a basis for a short interview which students were invited to take part in at the time of their advising session. The questions were shown to the students a few days before the interview at the time when their consent was requested. The questions were devised to apply to any part of the thesis, in order to deter memorization.

Interview Questions

1. Can you explain what you wrote (here) using other words?
2. Can you tell me more about this idea?
3. If you add (.......) where should you add it?
4. Can you add some more in the section about ....?
5. Can you put section headings into your essay?
6. What are the keywords for your topic?

The underlying purpose of the questions was to generate "literate talk", in which students would take an active role in explaining and making decisions about the organisation of their work. The interview was piloted with two Student Assistants of high proficiency (TOEIC 800+). They were invited to choose an academic essay that they were comfortable talking about, and answer the questions above. Predictably, they spoke more slowly than usual when describing their academic work and required twenty seconds to a minute of thinking time before replying to question 3. The speech rate was 2.7 syllables per second for one student who was recorded. (Compared with a speech rate of about 4.92 syllables per second for native speakers in a study by Baese-Burk and Morrill, 2015). They were able to produce extended explanations of their written piece, with detailed justifications for aspects of the organisation. The pilot interviews showed that even very fluent speakers would need to pause for a significant length of time to think about their topic; there was a great deal of variability in speaking speed within one person; engagement with the topic could be gauged from elaborated responses but also from the ability to navigate around their document to find various things such as

the evidence for a particular point; even these confident students tended to accept my suggestions for adding irrelevant material, at face value.

Flow of Procedure: From Interviews Back to Written Data

The sessions were recorded. Each session was listened to on average five times, with a view to noticing the features might justify an inference that these students were the authors of their own work. The speech rates were counted manually from short sections of each interview, ranging from 1.5 syllables per second to 1.6 syllables per second. Thirty-minute sections were transcribed with Otter.ai. The transcriptions were edited and marked up to look for elaborated answers, effective paraphrasing, prompt answers, and compensatory strategies. In each case students had specific problems they wanted to work on. Their ability to sustain the conversation about these problems became an important part of my inferencing process.

Description of Performance: Interview 1

The interview was driven by Mana's passion about her subject. She became interested in abandoned animals at junior high school. When asked to say more, she responded, "So I have many things what I know about, that I learned on TV or books, before I read. But one thing I didn't know before, that was education for pet owners before they keep animals as parent. It's one of the surprising news for me" (3:28). She continued, "The one programme that I really want everyone to know is, there is a country which have no pet shop. This is very, how can I say that, it's a significant topic to share in Japan? Because we have a lot of pet shops in small country and then many dogs and cats, some, even fish, they were thrown away or abandoned." (4:31) As this extract demonstrates, she was able to highlight and explain the reasons why she considered particular facts of key importance, very clearly. Coherence was often achieved by repetition rather than by the means that a more expert speaker would use, such as grammatical structure or synonyms. On the positive side, her responses were extensively elaborated and justified. For example, concluding an explanation about how pets are rehomed, she said "If the animal cannot transfer soon, they try to train the animals or playing with the animals and then to be kind, kind to people. So, I think it's a very important part, one of the important and significant part." (15:50).

As for the "challenge" question, I asked, "If you were going to add something about the motivation of the people, like, why did that person start to work as a volunteer, where would you put that in your thesis? Or maybe it would not be relevant?" (17:04)

She replied "Yes", then paused for about 15 seconds, looking through her paper. "At the end of the thesis, I wrote the financial problems of the organizations, I think I'll put the motivation of the staff." (18:30) At this point I commented that it was only a hypothetical question. She continued "The volunteer people, I don't think they do not care about financial reward, [but] about killing animals in the organization." She explained further: "I mean, I don't think they work because they want money, because they have to work, but they really like animals, and they really want to help animals. That's their motivation and why they work at the organization." (19:41) Overall, this student's response to the "challenge" question was strongly articulated in terms of the reasons and the grammatical structures used to emphasize them.

Description of Performance: Interview 2

Hana wrote about the problem of strict rules on school uniforms in Japan. She chose this topic because she had experienced inconsistency between how Japanese and non-Japanese teachers implemented the rules. She connected these issues to a consideration of human rights and identity. The choice and approach she took were conceptually sophisticated. Since the topic was developed in discussion with me over many sessions, I believed that the work was her own, but what kind of lexical evidence could we point to, which would support this inference? In Hana's interview, her ability to make judgments about the best choice of alternative words for subheadings in her thesis showed her authorship, even though her thesis incorporated large amounts of translated information from MEXT policy on school rules. In prior sessions several months earlier, I explained that all such information would need to be referenced and introduced not as fact but as situated statements quoted from the MEXT web pages. Hana was able to refashion her thesis in such a way as to distinguish between the legal or policy documents, the chronological developments and various interpretations of them, including both her own and educationalists and journalists. In the extract below, Hana discusses subheadings for her text.

Interviewer: If you were going to put a headline in this one, to make a more informative subheading, ...do you think you could have four or five words which summarise what the first point is about?

Hana: Here? Convention on the right of the child, so it's about human rights.

Interviewer: And so, is it about the right to life, survival and development and the right to express one's opinion? If you're going to pick, like, the right to wear the

clothes that you want, is it "survival and development" or is it the "right to express one's opinion"? Where does it fit? The right to wear what you like, right, the right to express yourself using clothes.

Hana: Not only clothes or uniform. Like statement, students' opinion, should reflect on the school rules, because school rules made by like adult people, so, and such people did not explain concretely to students, or students does not follow them now.

Interviewer: So, I think this idea that you're getting from the Convention on the Rights of the Child is good, but maybe.... You can choose "children have a right to express their opinion" or "children have a right to be heard"?

Hana: Be heard.

Interviewer: Be heard, be listened to. And you can choose either of them.

Hana: Students should have a right to self-expression.

Interviewer: Yeah, good.

The interview involved negotiation of what would be written, including moments at which she added pencil notes to her text. For example, I suggested re-phrasing the header "Points to be made in the future" as "What should be done?" She explained that according to MEXT, only one school surveyed teachers about their implementation of uniform rules, but she thought that all schools should follow that example.

Hana: I wrote the example one school did review. Already reviewed [the school uniform rules]. So I want teachers to see the example and conduct by theirself, by their ideas.

Notable features of Hana's performance included the clarity and speed of her answers when challenged on the nuance of words such as "have an opportunity" or "make an opportunity" and her critical perspective. (See Appendix A, Segment 1.)

Description of Performance: Interview 3

Haru's thesis was a comparison of strategies for dealing with rural depopulation in Japan and in Europe. Two recurring themes for this student were his rural identity and a desire to help those in areas of rural depopulation, which he explained well in his own written introduction. He was proactive in his approach, ordering books independently and submitting drafts early. However, in the near-final draft, the writing seemed to focus only on strategies in Japan, sourced from government websites and two or three key texts in Japanese, which he translated. It was possible that parts of the text were prepared by typing in text from the books and using computer translation. In the interview, Haru asked how to present information from a complex infographic from a government website. Our conversation involved translanguaging between English and Japanese as he explained his sources. Although Haru did not elaborate on his answers, he responded quickly to each question and used backchanneling throughout the interview (see Appendix 3). These features helped to convince me that he had put together an argument from sources which he had assembled himself by planning and thinking through the implications of what he observed on the ground in local areas and local policy planning sites. In the extract below, Haru was asked to explain a complex infographic which was in Japanese.

Interviewer: Because it's in Japanese as well, isn't it? What's on the X axis at the bottom?

Haru: X axis?

Interviewer: Yeah, you know, like, um... X, Y. So the X axis, it's the line along the bottom.

Haru: Ah... It's... X... X is the number of people.

Interviewer: Isn't it prefectures as well?

Haru: Yeah. Err Prefecture is... *Nan to iu kana.* Prefecture is like...hm m hm hm.

Interviewer: I mean, does each area on the graph above the prefecture name show something about that prefecture?

Haru: Mmm this graph is make like.... this area. (Gesture to the page.)

When we discussed how to use this data as the basis for his own graph, he demonstrated understanding of the data by responding quickly and by his resourceful use of both Japanese and English. It was clear that he knew more about the topic in Japanese. In terms of the CEFR criteria, we can see successful use of compensating strategies (Council of Europe, 2020, p. 79) including "B1: Can use a simple word/sign

meaning something similar to the concept they want to convey and invites 'correction'". This is evident in the discussion of different industries when he asks about how to explain medical-related industries (see Appendix A, Segment 3).

Discussion

RQ(1) What are some of the features of the spoken interaction when learners talk about their research topic with their teacher? The dialogic and multimodal nature of literate talk leads to uneven interaction. Participants shift from reading to writing to speaking and from L1 to L2. Despite long silences, these were filled by skim-reading, reference checking, on screen editing, note-taking, typing and other activities concerned with bridging spoken to written mode. The performance varied depending on topic, personality and how far the student had progressed with writing. Mana was capable of extended explanations, while the others were preoccupied with ongoing issues. Haru's engagement was evidenced by extensive back-channelling and questions. Interestingly, in relation to research question (2), the features which showed students' probable authorship were not completely captured by spoken interaction. Students' ability to navigate around the document, knowing where on the page to edit or add data, contributed to the inference-making process about the students' authorship. In future research, video or screen-cast might be one way to capture such nuances.

Considered in relation to the descriptors from the CEFR mediation scales, the task of explaining the senior thesis is very challenging as it incorporates skills of C1 level: "Can explain technical terminology and difficult concepts when communicating with non-experts within their own field of specialization." (Council of Europe, 2020, p. 119). At the start of the project, I felt it would be relatively simple to design an exit interview to be added to the senior thesis evaluation as a kind of validation procedure. (RQ3). However, through documenting these interactions, I changed my view. Fluency metrics were rejected due to the number of complicating factors, not least that the level of variability within the performance of one speaker is greater in L2 contexts (Base-Berk & Morill, 2015). When I discussed such issues with colleagues, many said that they used informal interviews to check student authorship in doubtful cases but others noted problems with relying on oral performance as a guarantee of authorship of written work, due to speaking anxiety and personality factors. In spite of my attempt to document it, the inferencing process about the students' authorship was context-dependent and subjective. Familiarity with the students' work led to intuitive judgments for which it would be difficult to provide objective evidence in the time-frame of a single interview. In future, presenting the thesis along with a portfolio of developmental evidence seems preferable to a single interview. Portfolios could include drafts, reflective journals, self-evaluation and spoken recordings. Barfield & Nakayama (2023) on project-based learning, and Lam (2020) on assessment as learning offer examples of well-documented projects.

One issue which made research difficult was shifting ideas regarding the acceptable use of AI tools. All the students used AI-assisted translation of Japanese websites into English. This seemed to become accepted as normal by professors of EMI classes during 2023. The Japanese government has adopted AI to translate its laws and policies since January 2024 (Kubota, 2024). The acceptance of AI tools in scholarly publishing developed during 2023, with statements from Elsevier in August, followed by APA and Science journal group in November. Elsevier point out that AI translation was already integrated into their in-house software as part of the review process. APA writes that "Authors may use, but must disclose, the use of AI tools for specific purposes such as editing" (APA, 2023). Elsevier states that generative AI can be used "to improve readability and language" (Elsevier, 2023). The *Science* journal group reports a change to their policy to allow use of generative AI, if authors disclose their use in the methods section (Thorp & Vinson, 2023). Such developments have caused a shift in the notion of authorship, from the creation of the exact words towards to the underlying conceptual structure. For the purposes of evaluation, it seems that we need to make sure the level of the written work represents the student's level and the ideas represent their ideas, but it is not possible to verify that the exact words come from them, only to make inferences about it.

Conclusion

The co-construction of literate talk as part of cognitive academic language proficiency should become a focus for investigation to support multimodal assessment both as assessment for learning and summative assessment. The present study was extremely limited in scope. The parameters of the interviews were not completely standardised, which made it more difficult to make generalisations about the output in terms of the students' spoken performance. The inferences made regarding the students' authorship drew on acquaintance with their work outside the context of the study. Ideally, a larger number of interviews would be carried out with students at a wider variety of levels and the roles of coding and interlocutor would be carried out by different researchers to reduce bias. However, the study may serve to demonstrate that learner talk focused on written work offers rich territory for further investigation through observation, not only of tutorial sessions but of classroom and peer-to-peer collaboration on writing. It is hoped that this paper will stimulate further discussion, improving our understanding of how intuitive judgements can be supported by principled inferencing.

Bio Data

Ellen Head is an associate professor of English at Miyazaki International University. She holds a PGCE in TESOL from London University and an MA in Japanese Language and Society from the University of Sheffield. Her research interests include learner autonomy, assessment for learning and CLIL.

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Appendix A

Hana Interview Segment 1

Hana: I wrote the example one school did review. Already reviewed [the school uniform rules]. So I want teachers to see the example and conduct by their self, by their ideas.
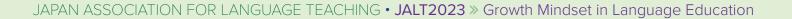
Interviewer: Who with? Just the teachers?

Hana: With all of them, with all of the teachers, not only teachers, like students and their family. So...

Interviewer: Yeah, go on

Hana: One team.

Interviewer: I wondered about having something calling it "decision making" or "decision making should be done together. [Silence as Hana is writing notes.]

Interviewer: What do you think is a good headline?

Hana: Having an opportunity to learn human rights for student and family.

Interviewer: A good way to do that is using an -ing form. Making opportunities, would it be good to say "making" or "having" because "making" is something that could happen in the future?

Hana: Learn or educate?

Interviewer: What do you want to say?

Hana: Learn.

Interviewer: Learn about is good because it means it is not like they have to memorise what was created already, they can discover they have some freedoms and rights and responsibilities.

Haru Interview Segment 2

Interviewer: What else is another dimension on it? It's about the numbers. You might find a better way to make a graph, actually. What's on the y-axis? Is the y-axis the industries?

Haru: Oh, y, y. Yeah. Yeah, y is the... industry.

Interviewer: ... if you only pick one or two industries.

Haru: And separate... yeah.

Interviewer: I mean it's quite a big job, but it might be impressive.

Haru: Hmm, okay.

Haru Interview Segment 3

Interviewer: What industries have you got on there?

Haru: Hmm, I want to write... *iriyou* and......hospitalization.

Interviewer: Hospitalization? Hospitality?

Haru: No.

Interviewer: Hospital is it medical? I'm just trying to think what you'd call it. Hospital industry, medical industry,

Haru: Hospital...

Interviewer: Hospital yeah, hospital-related because it's different from care, because care

could be elderly as well, couldn't it? Has it got Fukuoka and Miyazaki?

Haru: Yeah, ok.

Interviewer: For example, because you could do Kyushu and I suppose the trend for that one...

Haru: Should I focus on Miyazaki or Kyushu?

0:09:36

Interviewer: What's... you're the person who knows about it now? I don't know. I mean, now, you know more about it than I know. So what do you think? If you have a contrast?

Haru: Yeah.

Interviewer: And here it looks like you've got prefecture data.

Haru: Yes, yes.