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COLLOQUIUM

Conceptualization and operationalization in L2 task engagement research: Taking stock and moving forward

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1. Introduction

Task engagement is increasingly recognized as an important facilitator of instructed second/foreign language (L2) learning, and a growing amount of research has been focusing on the concept of L2 task engagement. At the same time, however, there are still some methodological issues that need to be addressed to fully uncover the nature of engagement in L2 learning (Hiver et al., 2024). The colloquium aimed to (1) identify research trends of and methodological issues in L2 task engagement research through a systematic review of literature, and (2) discuss solutions and alternative approaches to researching task engagement in L2 learning. In this paper, we provide the details of each colloquium presentation and the discussions, including the points raised by both our discussant and the audience of the colloquium.

2. Papers

2.1 Task engagement in L2 learning: A systematic review of research methods

In the first presentation, Joseph S. Yamazaki, Alyssa Vuogan, Hyejin An, and Jeungeun Kim (Florida State University, USA) presented a systematic review of research methods employed in L2 task engagement research to lay the groundwork for the subsequent presentations. Specifically, they set out to investigate (a) whether the tasks used in extant L2 task engagement research actually satisfied Ellis and Shintani's (2014) four criteria of tasks and (b) how the different dimensions of task engagement were being operationalized. A comprehensive literature search was conducted across three databases (PsycINFO, ERIC, LLBA) to identify all primary studies. As for the inclusion criteria, they restricted their focus to studies that (a) were written in English and (b) conceptualized and operationalized L2 task engagement as a multidimensional construct or in reference to the concept of flow. Consequently, a total of 31 studies were included in the report pool. These studies were then coded using various descriptive markers, including, but not limited to, Ellis and Shintani's (2014) four criteria of tasks, task types (e.g., open or closed, convergent or divergent), data collection methods, and indicators of task engagement.

Results showed that 55 types of tasks were used in the 31 studies. Among the 55 task types, 33 satisfied all four criteria of Ellis and Shintani's (2014) definition of tasks, 15 satisfied at least three criteria, three satisfied at least two criteria, and four satisfied only one criterion. Turning to each

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criterion, 49 task types were meaning-based, 40 had some kind of a gap to be filled, 47 relied on L2 learners' own linguistic/non-linguistic resources, and 51 had a communicative/non-communicative outcome. These results showed that Ellis and Shintani's (2014) four criteria of tasks were largely satisfied, indicating that tasks used in extant research on L2 task engagement are likely to be interpreted indeed as tasks (not as task-like activities or exercises).

Regarding engagement, 26 out of 31 studies conceptualized it as multidimensional, while five conceptualized it in reference to flow. Out of the 26 studies, the behavioral dimension was measured by 15 studies, and the most frequently used indicator was number of words produced ($k = 9$), followed by number of turns taken ($k = 8$) and time on task ($k = 7$). Cognitive engagement was measured in 23 studies. While language-related episodes ($k = 7$) and number of negotiation moves ($k = 5$) were frequently used as indicators, considerable variability was also observed in the way this dimension was operationalized. The emotional/affective dimension was measured in 16 studies, and indicators such as enjoyment ($k = 9$) and interest ($k = 5$) were most frequently used. Lastly, 14 studies measured social engagement.

Number of backchannels ($k = 6$) was the most frequently used indicator, but its operationalization varied largely among the studies. In the five studies that conceptualized task engagement in reference to flow, indicators such as focus ($k = 2$) and interest ($k = 2$) were commonly used. Contrasting these findings, they pointed out that there was some degree of overlap in the way L2 task engagement was operationalized under the two types of conceptualizations.

To conclude the presentation, they reiterated their findings and highlighted the diversity in the types of tasks being employed and the way task engagement has been operationalized in previous L2 task engagement research.

2.2 A new approach to operationalizing L2 task engagement

In the second presentation, Sachiko Nakamura (Tamagawa University, Japan), while emphasizing the advancement in task engagement research indicated in the first presentation by Joseph S. Yamazaki and his colleagues, discussed some areas that the field could improve further and suggested an alternative approach to operationalizing L2 task engagement. As such, the presentation began by reviewing some aspects of task engagement studies as examples to illustrate the areas for improvement. The examples included an overlap between engagement and other psychological constructs in terms of their conceptualization and operationalization as well as an overlap between subdomains of engagement in terms of their indicators.

Regarding the first type of overlap, she reviewed that some studies (e.g., Nakamura et al., 2021) have operationalized emotional engagement through the presence of task-facilitating emotions (e.g., enjoyment) and the absence of task-withdrawing emotions (e.g., anxiety) and accordingly measured the levels of these emotions by questionnaires. She then inquired as to whether it is acceptable to regard emotional engagement and the experiential aspect of emotions as synonymous constructs and referred to the literature viewing emotions as the antecedents of engagement (Pekrun, 2006). Regarding the latter type of overlap, she reviewed how "asking questions" had been treated as an indicator of different dimensions of engagement, including behavioral (Oga-Baldwin, 2019), cognitive (Lambert et al., 2016), social (Trofimovich et al., 2021), affective (Akiyama et al., 2023), and agentic engagement (Reeve & Tseng, 2011). She acknowledged the rationale behind each categorization (e.g., questions used to reciprocate speakership, questions indicating curiosity) but expressed concerns that such overlaps could complicate the comparison and evaluation of empirical findings.

She further discussed a commonly employed discourse analytical approach to coding indicators of engagement in transcribed task performance. While acknowledging the novelty of the approach, she stressed the significant workload associated with the method and suggested a need for alternative approaches suitable for analyzing large data.

Based on the reviews above, she introduced an alternative approach to operationalizing task engagement being developed as part of a larger project. The approach was to focus on the core characteristics

of engagement (i.e., action), and develop a list of descriptors (i.e., elements) of task engagement based on the literature. Some examples of the elements included "proactively participate in the task," "complete a task without giving up," and "actively engage with task partner(s) by nodding, backchanneling, using facial expressions, or other signs of active listening." As indicated in the examples, the elements, while focused on behaviors, integrate characteristics of cognitive, affective, and social engagement. These elements are to be used to form and define task engagement, which is viewed as an emergent variable, as opposed to a latent variable. The list can be used as an inventory to measure task engagement – for example, through self-reporting.

She concluded the presentation by suggesting that this operationalization of task engagement could enable the analysis of large data sets and address the issue of overlapping conceptualization and operationalization. At the same time, she stressed that the purpose of the proposal was not to replace the existing methodologies, but instead to encourage the field to seek and expand various means to investigate task engagement.

2.3 Revisiting the concept of L2 task engagement: Towards greater ecological validity

In the final presentation, Takumi Aoyama (Shinshu University, Japan/University of Warwick, UK) revisited the conceptualization of task engagement from the viewpoint of ecological validity. As the first presentation by Joseph S. Yamazaki and his colleagues revealed through a systematic review, the operationalization of concepts associated with task engagement research have overlaps to some extent. While Sachiko Nakamura addressed this issue by proposing an alternative approach to operationalizing task engagement in the second presentation, he emphasized that those overlaps reflect the real complexities of learners' task engagement in classrooms, and suggested that future task engagement research can take into account classroom perspectives.

In previous studies on task engagement, learners' engagement has been measured using various indicators, such as the number of negotiation moves, frequency of self-correction/self-repair, and number of backchannels. While those indicators have been validated in previous research, concerns have been raised that a learners' particular action can be regarded as representations of several different aspects of engagement, as the first and second presentation mentioned. Therefore, he argued that task engagement research would benefit from embracing the "mess" (= complexities) of real classrooms (Simpson & Rose, 2021), and taking a more holistic view on learners' task engagement.

To advance a more holistic approach to task engagement research, he suggested promoting a better research–practice relationship. Sato (2023) points out that the field tends to regard researchers as "knowledge producers" and practitioners as "knowledge consumers," while a desirable research–practice relationship requires the exchange of knowledge and experience between researchers and practitioners. Current task engagement research often emphasizes research-based knowledge and conceptualization, and less attention is paid to the conceptualization of task engagement that emerges from practitioners' experience in real classrooms. Therefore, more collaborative efforts between researchers and practitioners, as well as research exploring how teachers conceptualize task engagement (e.g., Dao et al., 2021), are essential.

At the end of the presentation, he provided an example of what was discussed, by reflecting on a collaborative research project on engagement in which he is currently involved. The project aims to explore classroom practices that enhance learners' engagement in the Japanese educational context, with a research team consisting of both researchers and in-service teachers. Initially, he viewed his role as a "knowledge producer" who provided research-based knowledge and suggestions to teachers so that they can deliver lessons that "theoretically" improve students' engagement. However, through discussions with teachers, he came to recognize the importance of how teachers see their students' engagement in classrooms.

He concluded the presentation by proposing how researchers and practitioners can contribute to future research on task engagement by integrating different perspectives from research-based and practice-based knowledge and experience. By fostering a collaborative mindset and working, task engagement research can achieve a better and better understanding of learners' task engagement.

3. Discussion and conclusion

Ali H. Al-Hoorie (Royal Commission for Jubail and Yanbu, Saudi Arabia) was the discussant of the colloquium. He began his talk by pointing out the necessity of establishing psychometrically rigorous scales of L2 task engagement. He referred to the jingle-jangle fallacies commonly discussed in the literature on engagement (Al-Hoorie et al., 2024; Reschly & Christenson, 2022) and highlighted the need for developing measures of L2 task engagement that undergo rigorous psychometric validation and demonstrate sufficient discriminant validity from other related constructs.

He then expanded his scope to issues related to the operationalization of task engagement in reference to the presentation by Aoyama. He discussed that in addition to taking into account how teachers view L2 task engagement, researchers may want to consider how students view task engagement. Referring to the emerging research into METAMOTIVATION (Al-Hoorie, 2024), he argued that the capability of L2 learners to monitor and regulate the quantity and quality of their own task engagement is a potentially fruitful topic for future research.

He also commented on two issues related to the multidimensional conceptualization of L2 task engagement. First, he pointed out that while the core of task engagement is considered to lie in L2 learners' actions (i.e., behavioral dimension), these actions may not always correlate uniformly with the thoughts and emotions experienced by L2 learners during task performance (i.e., cognitive and emotional dimensions), making it FAKE ENGAGEMENT (i.e., high behavioral but low cognitive and emotional engagement). Therefore, a more fine-grained approach, sensitive to the characteristics of L2 learners and varying tasks and contexts, is essential to better understand the relationships among the multiple dimensions. Second, using emotional engagement as an example, he argued that boredom tends to be treated as a sign of poor task engagement, and therefore tasks that induce boredom are avoided. However, in real life, not all tasks are exciting. In order to prepare learners for real-life situations where they will need to use the L2, they should additionally be assisted to develop the necessary self-regulatory skills to cope with less interesting tasks until completion. In other words, researchers and teachers should not exclusively rely on a DESCRIPTIVE MINDSET (what tasks students enjoy), but also a PRESCRIPTIVE MINDSET (what tasks students should engage in because of their value), cautioning against the TIKTOKIFICATION OF EDUCATION, as teachers are not mere entertainers.

During a 20-minute idea sharing session, the audience was encouraged to voice their ideas, concerns, and suggestions that arose during the colloquium so that the audience members and presenters could openly discuss and exchange various insights. A range of topics were exchanged, one of which was the fact that little attention had been paid to input-based task-based language learning (TBLT) and possible means to measure L2 listening and reading engagement. Another was the importance of considering the impact of learning contexts on engagement (e.g., compulsory classes vs. elective classes). Similarly, the audience also acknowledged the highly context-dependent nature of engagement and the need to develop instruments suitable for various contexts.

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