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## Research paper

## Teacher learners theorizing from practice: A case of the concept of learner engagement in interactive second language learning tasks

Mai Xuan Nhat Chi Nguyen <sup>a, \*</sup>, Phung Dao <sup>b</sup>, Noriko Iwashita <sup>c, d</sup>, Franciele Spinelli <sup>c, d</sup><sup>a</sup> Department of Languages, Information and Communications, Manchester Metropolitan University, All Saints Building, All Saints, Manchester, M15 6BH, UK<sup>b</sup> Faculty of Education, The University of Cambridge, 184 Hills Road, Cambridge, CB2 8PQ, UK<sup>c</sup> School of Languages and Cultures, University of Queensland, St Lucia Campus, St Lucia, QLD 4072, Australia<sup>d</sup> St Lucia Campus, St Lucia, QLD 4072, Australia

## HIGHLIGHTS

- Teachers were able to form their theories of learner engagement following theorizing task.
- Teacher utilized their personal practical knowledge to generate their own theories of learner engagement.
- Teachers felt empowered to have the opportunity to theorize from practice.

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## ABSTRACT

This study investigated second language (L2) teacher learners' abilities to theorize from practice and their perceptions of this theorizing experience. Fifty-four L2 teacher learners completed a theorizing task probing for their conceptualization of 'learner engagement'. Focus-group interviews were later conducted with 17 participants. Findings show that the teacher learners were able to generate their theories of learner engagement, which strongly aligned with expert conceptualizations. Notably, their personal theory was formed by their personal practical knowledge (PPK), including knowledge of the subject matter, instruction, and contexts. These findings demonstrate the usefulness of guiding L2 teacher learners to theorize from practice and suggest a framework for L2 teacher educators to promote theorizing within language teacher education courses.

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## 1. Introduction

"The thinking teacher is no longer perceived as someone who applies theories, but as someone who theorizes practice." (Edge, 2001, p.6)

Research into various aspects of language teachers' professional lives has revealed that a large amount of teachers' knowledge and understanding of teaching is socially and experientially

constructed, which means it is shaped by their experiences both inside and outside the classroom (Freeman & Johnson, 1998; Johnson & Golombek, 2011; Lee et al., 2015; Payant & Mason, 2018). This realization corroborates an increasingly acknowledged view that "teachers are not empty vessels waiting to be filled with theoretical and pedagogical knowledge" (Freeman & Johnson, 1998, p. 401). In fact, second language (L2) teachers' various prior experiences, including but not limited to, their language learning trajectories, their learning within the context of teacher education courses, and their knowledge of the sociocultural characteristics of their teaching and learning contexts, form a significant body of personal practical knowledge that, alongside disciplinary knowledge, shapes and reshapes their teaching practices (Golombek, 1998, 2009, pp. 155–162). Taking on this view, L2 teacher education researchers have in the past decade called for encouraging teacher learners to make use of their diverse repertoire of existing

\*Corresponding author. Department of Languages, Information and Communications, Manchester Metropolitan University, All Saints Building, All Saints, Manchester, M15 6BH, UK.

E-mail addresses: [m.nguyen@mmu.ac.uk](mailto:m.nguyen@mmu.ac.uk) (M.X.N.C. Nguyen), [pd543@cam.ac.uk](mailto:pd543@cam.ac.uk) (P. Dao), [n.iwashita@uq.edu.au](mailto:n.iwashita@uq.edu.au) (N. Iwashita), [f.spinelli@uq.edu.au](mailto:f.spinelli@uq.edu.au) (F. Spinelli).

experiences to personalize and make sense of the theoretical and pedagogical knowledge introduced to them in teacher education programs (Edge, 2011; Kumaravadivelu, 2001, 2012). Specifically, Kumaravadivelu (2001) calls this process “theorize from practice” (p. 173), and considers it one of the main goals of language teacher education programs. Similarly, Edge (2011) views teacher theorizing as “one form of personal, as well as of professional, renewal” (p. 96) which has the potential to help teachers become transformative practitioners who not only apply theories but also theorize from practice.

Despite scholarly attempts that advocate for encouraging language teachers to theorize practice, much research on L2 teachers' theorizing to date has been exploratory and conducted with in-service L2 teachers (e.g., Borg, 1999; Phipps & Borg, 2009; Tsang, 2014; Wyatt & Borg, 2011). Little is known, however, about how L2 teacher learners might be guided to theorize from practice within the context of teacher education programs, and the impact of this theorizing experience on their professional learning. To address this gap, the current study investigated a case-based implementation of guiding L2 teacher learners in a post-graduate TESOL (Teaching English to Speaker of Other Languages) teacher education course to generate their theories of an L2 phenomenon. The construct targeted in this study was *learner engagement*. This construct was chosen as 1) it is theoretically a relatively new concept in L2 learning and teaching and its scientific conceptualization has been at the center of several heated debates (Dao & McDonough, 2018; Hiver et al., 2021; Mercer, 2019, pp. 1–19; Mercer & Dörnyei, 2020; Philp & Duchesne, 2016; Svalberg, 2009) and 2) learner engagement is often of teachers' concern in practice since it is perceived as “defining all learning” (Hiver et al., 2021, p.2, see also Mercer, 2019, pp. 1–19; Christenson et al., 2012). We therefore argue that working on this construct will give L2 teacher learners the freedom, flexibility and creativity to formulate and articulate their thoughts and understanding, without being much constrained by established expert conceptualizations. It should be noted, however, that the procedure used for theorizing practice described in the present study could also be potentially applied to other L2 learning and teaching constructs and phenomena that are of interest to teacher educators and teacher learners.

## 2. Teacher theory and the process of theorizing from practice

Teacher theory has acquired several explanations in the L2 literature. Borg (1999) defines it as “implicit personal understandings of teaching and learning which teachers develop through educational and professional experiences in their lives” (p. 157), and contrasts it with ideological or idealistic beliefs/theories, which are influenced by technical or propositional knowledge of what teachers should do when conducting their teaching (Phipps & Borg, 2009). These are known as professional theories (see Dogancay-Aktuna & Hardman, 2012, pp. 103–120; O'Hanlon, 1993), or “Theory with a big T” (Atkinson, 2010, p. 5), which are often proposed and disseminated by experts/researchers, and seek to explain, understand, or predict a phenomenon or some phenomena. While professional/expert theories are important to teachers' learning, it has been argued that teachers' personal theories, or “theory with a small t” (Atkinson, 2010, p. 7), also assume a crucial role. “Theory with a small t” is locally and experientially constructed, and is partial and speculative, rather than generalizable. It seeks to present a different kind of truth: local, context-dependent, experimental, and diffident (Atkinson, 2010). Since much of language learning and teaching is localized and particularized (Kumaravadivelu, 2012), teachers' theories have been argued to empower teachers to respond to the demands and realities of

specific teaching situations (Golombek, 1998, 2009, pp. 155–162).

Attaching importance to teachers' theories, Edge (2011) and Kumaravadivelu (2012) take one step further, emphasizing on teacher theorizing, or the process of teachers creating their theories of teaching, and considering it a crucial component of teachers' professional practice as well as of teacher education programs. More precisely, they converge that teacher theorizing must take root in their practice, hence the concept ‘theorize from practice’ (Kumaravadivelu, 2006, p. 273). In other words, teaching practice, or the classroom, is a fertile ground for teachers to observe, analyse, and reflect on their practice, thus creating theories of teaching that work for themselves and their learners. Edge (2011), describes this process as the teacher “articulating his or her best understanding of what is actually going on” in the classroom and “putting into words the current state of awareness and understanding with which one is operating” (p. 80). This process of theorizing from practice does not need to lead to complex, original, or generalizable statements. The act of theorizing from practice is in itself a renewing experience that enables teachers to develop an insightful understanding of various aspects of their teaching, all the while becoming theorizers with confidence and competence to negotiate with and personalize professional theories.

Against this backdrop, in this paper we conceptualize teacher theory as ‘personal theory’ and ‘theory with a small t’ (Atkinson, 2010), as opposed to professional/expert theory and ‘Theory with a big T’. It should be noted from existing definitions that conceptually, teacher theory is closely connected to their thinking and feelings, or cognitions (see Kubanyiova & Feryok, 2015, for a review). Some scholars even consider teacher theory as synonymous with beliefs, perceptions, and philosophies (Phipps & Borg, 2009; Borg, 2003). While contending that teachers' theories are part of teachers' thinking and feelings, we argue that what sets them apart from other concepts (e.g., beliefs and perceptions) is the emphasis on teachers' attempts to *articulate* their understanding of a specific language learning and teaching phenomenon based closely on their observation of practice. This process of teachers verbalizing and organizing their thinking and understanding of teaching is highly reflective and experiential (Edge, 2011; Farrell, 2019, pp. 38–51), and is arguably grounded on their personal practical knowledge.

## 3. Teachers' personal practical knowledge (PPK)

Teacher's personal practical knowledge (PPK) is an individual teacher's experiential knowledge that may inform their view of several aspects of teaching (Clandinin, 1986). PPK has its theoretical foundation in Dewey's (1938) experiential learning theory, which emphasizes the role of practical or lived experiences in learning. Connelly and Clandinin (1988) defines PPK as “a moral, affective, and aesthetic way of knowing life's educational situations” (p. 59). PPK therefore shapes and is shaped by teachers' understandings of teaching and learning. Golombek (1998) conceptualizes teachers' PPK into four broad categories: knowledge of self (teachers' self-adopted identities when conducting teaching and learning-related activities); knowledge of the subject matter (disciplinary knowledge teachers use in the classroom that often comes from participation in teacher education courses, e.g., input from teacher educators, readings, and classes); knowledge of instruction (pedagogical knowledge that teachers rely on when teaching such as effective classroom management or assessment); and knowledge of contexts (the social and institutional setting in which teaching and learning take place). Although Golombek (1998) emphasizes that teachers' PPK is by no means static, which means “it is personally relevant, situational, oriented toward practice, dialectical, and dynamic as well as moralistic, emotional, and consequential” (p. 452),

these categories are a useful starting point to gain insights into different types of knowledge that inform and underlie teachers' process of theorizing from practice.

#### 4. Teachers' theories about L2 learning and teaching

Existing research on L2 teachers' personal theories<sup>1</sup> has provided useful insights into how practising L2 teachers theorize different aspects of language learning and teaching drawing on their PPK. Borg (1999) was one of the first studies to explicitly explore language teachers' theories, focusing on grammar instruction. He found that each of the five teachers that was observed and interviewed had his/her own rationales (i.e., self-generated theories) for teaching grammar. These theories were mainly influenced by the lessons' content and teachers' prior experiences of learning and teaching grammar (i.e., their PPK). Similarly, Phipps and Borg's (2009) and Sun and Zhang's (2021) investigation of grammar teaching beliefs of English as a Foreign Language teachers in Turkey and China respectively, showed that the teachers adjusted their beliefs and developed their theory of grammar teaching through their practice of teaching grammar and observation of learners' behaviours. In particular, they theorized that teacher-whole-class grammar practice worked better than contextualized grammar presentation. Professional theories about grammar teaching such as discovery and communicative grammar instruction were not upheld due to their ineffectiveness during actual implementation.

Studies examining the process of teachers' theorizing from practice in other aspects of L2 teaching such as teachers' interactive decisions in the classroom and use of communicative tasks following a task-based approach, have also highlighted that L2 teachers relied extensively on their PPK to form their theory of practice, which in turn informed their instructional decisions. For instance, Tsang (2004) and Li (2019) explored interactive decisions of English teachers in their classroom teaching, and found that their PPK, specifically knowledge of context, helped them develop and evaluate new philosophies of teaching. Likewise, Wyatt (2009) and Wyatt and Borg (2011) reported significant developments in L2 teachers' PPK as a result of their implementation of communicative and task-based language teaching. Notably, this growth in PPK enabled the teachers to form their theories and flexibly adapt the key characteristics of these methodologies to suit their teaching. Interestingly, a recent study by Webster (2019) documents that a lack of development in teachers' PPK over a continued period of time indicated limited professional learning, mostly due to the teachers conducting routine teaching without much reflection and problematization of their practice.

Taken together, this existing body of research demonstrates that L2 teachers' effective teaching is characterized by construction of theories of practice drawing on a wide range of personal and experiential knowledge (i.e., PPK); at the same time, through the process of theorizing practice teachers' PPK is continually reconstructed and developed (see Freeman & Johnson, 1998; Johnson, 2018; Johnson & Golombek, 2020). This rich empirical evidence arguably adds further support to encouraging teachers to explore their practice from the perspective of theorizers, apart from being consumers of expert theories, thus giving back to the practitioner their "right to theorize" (Gordon, 2008, p. xvii), or "to be included in the canon of influential literature and interpreted as theoretically useful" (Speer, 2019, p. 328).

<sup>1</sup> It should be noted that in these studies teachers' theories are operationalized in various ways using different terms, such as beliefs, perceptions, and philosophies.

#### 5. Exploring teachers' theories and theorizing in L2 teacher education

Drawing on the importance of teachers' theories, the L2 teacher education literature has advocated for promoting teacher theorizing within teacher education programs. Borg (1999, 2006) proposes a three-stage framework for constructing teachers' theories, including (i) encouraging language teachers to describe their teaching practice, (ii) eliciting their teaching rationales, and (iii) evaluating these rationales/theories to allow teachers to reflect on their thinking behind their teaching. Similarly, Tsang (2004) advocates for making teachers aware of their PPK, arguing that this knowledge is essential to enabling teachers to make appropriate teaching decisions. Edge (2011) and Kumaravadivelu (2012) also call for embedding theorization into the content of L2 teacher education, contributing toward a change in the discursive direction of theory and practice in the field (see Sato & Loewen, 2022; Nguyen et al., 2022). This change, which has been widely supported by the wider literature on teacher education (see Shulman, 1987; Bullough, 1997), involves acknowledging that the activity of teaching is more than just an application of theory, but is also generative of theory (Clarke, 1994; Freeman, 2020). Similarly, Richards (2015) considers the ability to theorize from practice to be one of the features that "distinguishes the very best language teachers" (para. 1).

Despite the above-suggested theoretical proposals, to date only a dearth of research has investigated how L2 teacher learners might be purposefully guided to theorize from practice within the context of language teacher education. One of the first attempts is Ramani (1987), which utilized classroom data, including excerpts of lesson transcripts and classroom audio-recordings and videos, to instigate teachers' theorizing within the scope of a short-term workshop for English teachers. More recently, Payant and Mason (2018) implemented a planned tutoring scheme in a graduate TESOL program involving pairing a teacher learner with a language learner. The goal was to provide teacher learners with opportunities to conduct teaching and apply, adapt, and transform their understanding of pedagogical concepts and theories. Both of these studies demonstrated efforts by the teacher educators to recreate contexts similar to actual classroom teaching within teacher education and development courses/programs to enable teacher learners to theorize from practice. However, they focused on describing the teacher learners' theorizing experience, without investigating the different kinds of knowledge (i.e., PPK) that underlie theory building, nor reporting teachers' voices as they experienced becoming theorizers. To provide further empirical evidence to support and promote teacher theorizing, this study investigated teachers' thinking in the form of teachers' personal theories about L2 concepts and explored sources of teachers' theories and the usefulness of implementing theory generation tasks/techniques in language teacher education programs. Specifically, we chose to focus on the concept of learner engagement in L2 task-based interaction, for reasons outlined below.

#### 6. The concept of learner engagement

Engagement has been considered as a driving force for learning (Christenson et al., 2012). The goal of promoting learner engagement in L2 task-based interaction is, therefore, to create optimal conditions and/or opportunities to enhance learning outcomes (Mercer & Dörnyei, 2020; Philp & Duchesne, 2016; Svalberg, 2009). Early L2 research refers to learner engagement as the degree of language production (Dörnyei & Kormos, 2000), learners' deep level of attention, i.e., learners' meta-talk about language features (Storch, 2008; Toth et al., 2013), or learners' efforts when working

with peers to fulfil task goals (Bygate & Samuda, 2009). Recently, L2 research has recognized the multidimensional characteristics of learner engagement (Hiver et al., 2021; Philp & Duchesne, 2016; Svalberg, 2009). In L2 task-based interaction, learner engagement reflects four different but overlapping dimensions: cognitive, behavioural, social and emotional. Cognitive engagement is often associated with learners' attention and mental effort (Helme & Clarke, 2001; Philp & Duchesne, 2016), alertness (Svalberg, 2009), and noticing or discussion of language features (Baralt et al., 2016, pp. 209–239; Storch, 2008; Toth et al., 2013). Common measures of cognitive engagement include language-related episodes (LREs), or discussion of language forms (Lapkin & Swain, 1996), self-correction/repairs, negotiation of meaning, elaborative talk (e.g., talk used to clarify and expand semantic meanings), and idea units (i.e. comments on a theme under discussion) (Dao, 2021; Lambert et al., 2017; Phung, 2017; Qiu & Lo, 2017). Behavioural engagement is perceived as learners' participation, measured by time on task and language production (turns and words). Meanwhile, social engagement highlights interactiveness and the social relationship between learners. Measures of social engagement mainly concerns mutuality and reciprocity, affiliation, willingness to interact with peers, supportiveness, scaffolding, and assistance (Baralt et al., 2016, pp. 209–239; Storch, 2002), backchannels and learners' responsiveness (i.e., responses to each other's ideas) (Dao et al., 2021; Lambert et al., 2017; Phung, 2017).

Finally, emotional engagement is usually perceived as a psychological state, reflecting diverse affective aspects (see Dao et al., 2021; Hiver et al., 2021; MacIntyre et al., 2019), often categorized as positive (e.g., enjoyment, interest, joy, and enthusiasm) or negative (e.g., anxiety, boredom, and frustration). One of the peak states of emotional engagement is "flow" - a state of intense involvement and heightened emotional intensity in tasks, which leads to improved performance (Csikszentmihalyi, 1990; Czimmermann & Piniel, 2016, pp. 193–214; see also Aubrey, 2017; Aubrey et al., 2020; Egbert, 2003). Since emotional engagement concerns multiple types of emotion, it is also considered as multi-dimensional and dynamic (Dao et al., 2021; Fredricks et al., 2004; Philp & Duchesne, 2016; Skinner et al., 2009). In terms of measurement, emotional engagement has thus far mainly been qualitatively described using observations and learners' self-reports (Dao et al., 2021; see also Hiver et al., 2021 for a review). Notably, although acknowledging the multidimensionality of the learner engagement construct, there are some variations in conceptualising the sub-components of learner engagement (Fredricks et al., 2004; Hiver et al., 2020), with some recent studies suggesting that behavioural engagement is actually the reflection of cognitive, emotional and social engagement (Dao et al., 2021; Dao, 2021). In other words, when learners are cognitively, socially and emotionally engaged in interaction, they could demonstrate these three types of engagement through their behaviours.

In summary, learner engagement is evidently a construct that has attracted significant research attention in L2 education. However, there are considerable variations in how it has been theorized and empirically studied. Depending on the research purpose and context, definitions of learner engagement varied across studies, and different measures were devised to capture the four dimensions of engagement. Against this background, it is worthwhile to involve L2 teacher learners in the process of theorizing the construct, drawing on their teaching and learning experiences. This additional practitioner's voice will likely contribute to enhancing existing understandings of learner engagement in both research and practice terms.

## 7. The current study

This study aimed to examine the extent to which L2 teacher learners are able to theorize from practice within the context of an L2 teacher education course, and how this theorizing experience could contribute to their professional learning. Within the scope of the study, we take the concept of learner engagement in L2 classroom interaction as a case in point to initiate teachers' theorizing. Specifically, the following research questions are addressed.

1. What is L2 teacher learners' theory of learner engagement?
2. What factors contribute to their theorization of the concept of learner engagement?
3. What are teacher learners' perceptions of this theorizing experience (i.e., the theorizing task, their participation in the task, and their ability to theorize from practice)?

## 8. Method

### 8.1. Participants and context

Participants were 54 pre/in-service L2 teacher learners (all females) who were enrolled in a course focusing on Instructed Second Language Acquisition (ISLA), which was part of a Master of TESOL/Applied Linguistics program at an Australian university. The course covered diverse topics on how second languages are learned in the classroom.

Participants had diverse nationalities: Chinese (44), Taiwanese (2), Australian, Vietnamese, Japanese, Indonesian, South Korean, Singaporean, Thai and Norwegian (1 each). Their age ranged from 22 to 41 years old. Twenty-three held a BA in English language teaching. Ten held a BA in teaching a language other than English such as Japanese, French, Chinese, and German. One participant held a master's degree in International Tourism and Hospitality Management, and the rest had a BA in various majors such as Finance, Management, Journalism, Fashion Design, Marketing, Primary Education, and Accounting. The in-service teachers ( $n = 18$ ) had a wide range of L2 teaching experience, ranging from 6 months to 10 years. Most of them had taught in diverse L2 contexts in Asia (except one teaching in Australia and another in Norway) such as primary schools ( $n = 6$ ), secondary schools ( $n = 8$ ), tertiary institutions ( $n = 2$ ), and private language centers ( $n = 2$ ). The pre-service teacher participants ( $n = 36$ ) reported not having any language teaching experience, but all had experienced learning English as a second language in instructional contexts, ranging from 10 to 12 years.

### 8.2. Data collection instruments and procedure

As part of the research procedure, the participants participated in a theorizing task that elicited their self-generated theories of learner engagement, and then focus group interviews to gain insights into their theorizing experience and perceptions towards theory generation. Data for the present study were thus gathered from two main sources: a theorizing task and semi-structured focus group interviews.

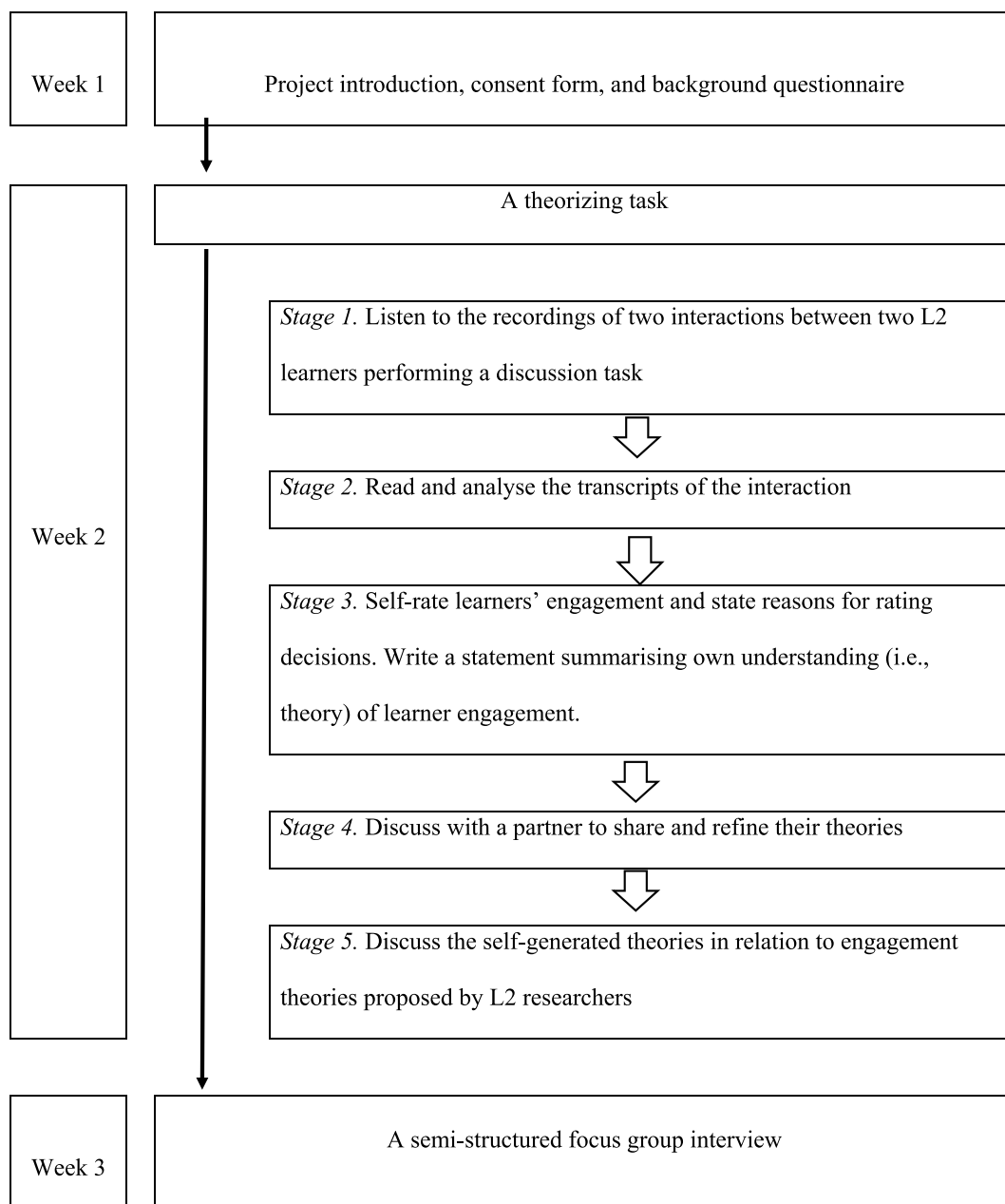
### 8.3. A theorizing task

A five-staged theorizing task was devised to stimulate the teacher learners' generation of theories of learner engagement,

thus collecting their self-generated and articulated theories as one source of data. The task was carried out in one of the regularly scheduled sessions of the above-mentioned ISLA course to all 54 participants. The focus of the lesson in which the particular theorizing task was implemented was 'Motivation and Engagement'. The task procedure is illustrated in the following flowchart.

opportunities through listening to the recordings and reading/analysing transcripts of learner interactions generated by an interactive discussion task. The task asked L2 learners to discuss and debate in pairs the advantages and disadvantages of shopping online versus at the store. These authentic classroom data (i.e., recordings and transcripts of learner interactions) arguably served

Flowchart. A theorizing task and procedure



The theorizing task was designed following a bottom-up, data-driven, and inductive reasoning approach (Seel, 2012), which encouraged the teacher learners to generate theory of learner engagement based on given classroom data and their previous L2 learning and teaching experiences and knowledge. Specifically, Stages 1 and 2 provided teacher learners with experiential learning

as useful snapshots of classroom teaching and learning situations to stimulate teacher learners' theorizing. Stage 3 asked the teacher learners to intuitively self-rate learner engagement in an interactive task using a high-medium-low rating scale and to justify their rating decisions. This simple scale was used to guide their observation and evaluation of learner interaction. This triggering activity

aimed to help the teacher learners in the next stage (Stage 4) to form a broad generalization of the construct of learner engagement in interactive tasks. To provide context for the theorizing task, brief explanations of the classroom interaction data, including details about the language learners' backgrounds and English learning characteristics, were also given together with the transcripts.

In Stage 4, the participants were asked to discuss with peers to elaborate and fine-tune their engagement theories where necessary, following postulations that teacher theorizing is a dynamic process that involves "dialogues with self and others" (Johnson & Golombek, 2002, p. 7). Finally, Stage 5 asked the teacher learners to compare their theories with expert proposals of learner engagement (Philp & Duschene, 2016; Svalberg, 2009). This was to raise their awareness about their viability of generating L2 theories from practice. It should be noted that throughout these stages, participants were repeatedly encouraged to make use of their own knowledge and past and current experiences as they formed their theory of learner engagement.

#### 8.4. Semi-structured focus group interviews

Three focus group interviews were organized with 17 participants who volunteered to participate from the pool of 54 teacher learners who completed the theorizing task. Each focus group consisted of 5–6 participants. Of the 17 teachers interviewed, 15 were in-service English teachers with between six months to ten years of experience, and two were pre-service teachers with no formal language teaching experience. The interview questions targeted teacher learners' perceptions of the effectiveness and benefits of the theorizing task, beliefs about their ability to generate L2 theories, factors (e.g., previous learning and teaching experiences, readings, and courses) contributing to the generation of theories, and benefits/difficulties of including theorizing activities in teacher education courses (see Appendix). As the first three authors were also the instructors in the current ISLA course, the interviews were conducted by the fourth author, a trained research assistant who was studying toward an MA in Applied Linguistics, to allow participants to freely express their views. The interviews lasted between 60 minutes and 75 minutes and were audio-recorded.

#### 8.5. Analysis

To answer the first question which asks about teacher learners' theory of learner engagement, their self-ratings of the engagement levels of the four L2 learners participating in an interactive task were calculated for percentages of agreement across participants. Teacher learners' stated theories of engagement were then analysed inductively following a content-based analysis approach (Dörnyei, 2007). At the initial-level coding, we read through the participants' explanations of their engagement ratings and their self-generated theories of engagements and highlighted segments indicating their conceptualization of learner engagement (e.g., "deep thinking", "share[ing] and contribute[ing] ideas"). We then gave descriptive labels (codes) to these segments using our own words or key words from the data (e.g., "deep thinking" was labelled 'thinking hard about the task at hand', "share[ing] and contribute[ing] ideas" was labelled 'interactiveness'). At the second-level coding, we went through all participants' responses, made a list of all the codes previously generated, and identified "abstract commonalities" (Dörnyei, 2007, p. 252), or themes, among them. Smaller codes such as 'thinking hard about the task at hand' were then grouped under a broader label 'cognitive engagement'; whereas "interactiveness" was grouped under 'social engagement'. This process of naming and grouping of themes was performed by

the second author and crosschecked with the first author, with all disagreements resolved through discussion. Frequency counts were conducted for each emerging coding category to show how frequently each key theme was repeated across participants.

To answer the second and third research questions, which explored factors contributing to teacher learners' theorization and their perceptions of this theorizing experience, interview responses were analysed qualitatively following a six-stage reflexive thematic analysis approach (Braun & Clark, 2006). Specifically, the data were read and re-read to gain familiarity. Coding began as we read each interview transcript, identified the research inquires, and generated labels (i.e., codes) to describe them. Similar codes were then grouped together and themes were generated to represent unified codes. Next, themes were checked against the whole data set until saturation occurred (i.e., no new labels were generated as we read the transcripts). Finally, a detailed analysis of each theme was developed, with pertinent quotes selected to illustrate the themes and included in the research report. To ensure the reliability of the interview analysis, summaries of themes were sent to all participants for member-checking purposes.

## 9. Findings

### 9.1. Learner engagement: ratings and teacher theories

Before theorizing learner engagement in an interactive task, participants were asked to rate learner engagement intuitively, which served as a triggering activity to help them formulate their theory of engagement. The results showed that the participants demonstrated relative consistency in their rating decisions across learners. Forty-three participants (79.62%) rated Learners 1 and 3 as highly engaged. The justifications for their decisions were: "Learner 1 was active during the whole interaction, clearly positioned himself towards the topic, led the conversation, and provided feedback and encouraged the partner to talk" (P20), and "Learner 3 developed her ideas actively and with more details. She led the conversation and initiated most of the topics as well as encouraged the partner to show his opinion" (P35). Forty (74.07%) participants rated Learner 4's engagement as low. Their reasons included "Learner 4 was passive and needed encouragement from the partner to talk. She did not seem to hold a positive attitude toward the conversation and sometimes used the native language. There were also many pauses and hesitations" (P17).

For Learner 2, there were discrepancies among pre-service teacher participants, with 17 out of 36 pre-service teachers (47.22%) rating Learner 2's engagement level as low due to reasons such as "He acted as a listener and provided reasons for his argument but did not develop his ideas. He sometimes simply repeated what the partner said" (P29). Meanwhile, 19 out of 36 pre-service teachers (52.77%) perceived it as medium engagement as "Learner 2 was very passive and talked less than the partner. He did not seem to be willing to engage in the discussion. His responses were short, using a lot of 'uh' and 'yes'" (P37). However, the in-service teacher participants' ratings of Learner 2's engagement was more consistent, with most (15 out of 18 in-service teachers or 83.33%) considering Learner 2's engagement level as medium. This finding revealed that when it comes to the learner whose engagement fluctuated over the course of performance, the in-service teacher participants with more teaching experience tended to have more consensus in evaluating learner engagement.

After completing the engagement self-rating activity, the participants discussed and generated their own theory of learner engagement. Their responses revealed that both pre- and in-service teacher participants defined learner engagement as including three components. Firstly, thirty-eight teacher learners (70.37%) stated

that the amount of *interactiveness* among learners was an indicator of learner's social engagement. This aspect of learner engagement was reflected in comments such as “*Engagement is to what extent students interact and participate in their communication*” (P9), and “*Engagement is the students' level of joining in the conversation and the interactions that they create. The higher the engagement level, the more successful the conversation is*” (P27).

Secondly, thirty-one teacher learners (57.40%) perceived the level of willingness to communicate, interest, positive and motivated attitudes as another aspect of engagement (i.e., emotional engagement). Comments reflecting this aspect included “*learner engagement means their willingness to communicate in activities*” (P11), “*their showing of great interest and willingness to participate in the conversation*” (P5), “*their high spirit of working on a task with high interest and having fun finishing the task*” (P35). Thirdly, nineteen (35.18%) considered mental effort and attention as an aspect of engagement (i.e. cognitive engagement). For example, they stated “*learner engagement is the attention the learners pay to the activities and learning*” (P40), or “*the extent to which the participants [learners] mentally and physically involve in the activities with autonomy and interest*” (P2).

In sum, the results showed that both pre- and in-service teachers perceived learner engagement as the intensity of *interactiveness* (social), *willingness, interest, and positive and motivated attitude* (emotional) and *mental effort and attention* (cognitive) in interaction. The exemplary quote below demonstrates collectively these aspects of the teacher learners' theory of learner engagement.

Learner engagement is how learners actively and collaboratively join the task<sup>\*(social engagement)</sup>, share and contribute their own ideas <sup>\*(cognitive engagement)</sup> and listen to each other's opinion-<sup>s\*(social engagement)</sup>, and are in good emotions such as being enthusiastic, open, happy, and enjoying the interaction <sup>\*(emotional engagement)</sup>(P53).

## 9.2. Factors contributing to teachers' theorizing

The focus group interviews revealed that the participants extensively drew on their PPK to complete the theorizing task, thereby being able to conceptualize their theory of learner engagement. Specifically, the three main aspects of this utilized PPK included knowledge of the subject matter, knowledge of instruction, and knowledge of contexts.

### 9.2.1. Knowledge of the subject matter

All participants reported relying substantially on their previous subject matter knowledge of applied linguistics and language teaching acquired during teacher education, to complete the theorizing task. Specifically, input from reading materials, class activities, and instructors were the most-commonly cited factor. Participant 2 commented:

*It was actually a bit difficult to decide if the engagement level is high, medium, or low. So the readings we did before class and the previous class activity [on L2 motivation] also helped.* (P2, Focus group 1)

This participant reportedly took advantage of what she learned from reading ISLA materials and participation in class activities to overcome initial difficulties when given a task she was not familiar with. It should be noted that the activity that immediately preceded the theory-generating task was about motivation, in which the teacher learners were asked to discuss and critique several expert theories of L2 learning motivation. This practice with a more well-

defined L2 construct (i.e., language learning motivation) assumedly prepared the teacher learners for subsequently generating their own theory of learner engagement.

Other course activities were also instrumental to enriching participants' PPK, which was in turn conducive to theory generation. P53 explained:

*This semester, for my mini-research project, I did a classroom observation study on teachers' motivation and students' engagement, so I could generate my definition based on the observation and the teacher experience.* (P53, Focus group 2)

The mini-research project was one of the participants' core assignments in this teacher education course. They were tasked with selecting an ISLA topic of their interest and designing and conducting a small-scale study with L2 learners and/or teachers to address a justified research inquiry. For P10, the research activities that she did to prepare for the assignment seemed to have provided her with useful practical sources to formulate the concept of learner engagement.

Additionally, teacher input, including both instructions on several topics throughout the course and explanations pertaining to the particular 'Motivation and Engagement' lesson, contributed to their theorizing process.

*When we learned about motivation theory [instrumental and integrative motivation], the teacher explained further to us how the characteristics of the Canadian context motivated researchers to come up with this theory. It helped me realize that context is helpful for creating and understanding theory. I therefore used the same approach to come up with my theory of engagement.* (P4, Focus group 1)

This excerpt illustrates the participant's ability to apply previous teacher input to a new yet similar learning task, showing evidence of successful activation of PPK based on knowledge of the subject matter. This finding adds further support to the role of theorizing in empowering teachers to utilize their existing professional and theoretical knowledge to become thinking and transformative practitioners (Edge, 2011).

### 9.2.2. Knowledge of instruction

The second most cited source of the participants' PPK that enabled them to generate their own theory of learner engagement was their experience in conducting L2 teaching and learning. Since most of the focus group participants had taught English as an L2 at primary and secondary levels, they were able to refer back to their students' engagement in learning activities in order to complete the theory-generating task.

*I remember even before that [the theorizing task], since I started teaching back home I had this hunch, it was based on my own intuition, to define what engagement is or looks like in the classroom. This helped me to do the theory task. The only problem was I struggled with coming up with the exact wording. I couldn't really think in an abstract way so I used really concrete ideas like actively working with each other, having fun, finishing the tasks, and so on.* (P16, Focus group 3)

P16's response demonstrates her thinking process as she attempted to do the theorizing task. Her previous classroom teaching experience, articulated through reflections on her past observations of learners' interactions, apparently provided her with useful clues to formulate the concept of learner engagement.



Similarly, P37 explained how she relied on her pedagogical knowledge of how to motivate and engage students to theorize learner engagement.

*The process that I used to generate this kind of theory is very much based on my own teaching experience ... When I was a teacher, I didn't know the exact theory, but I knew I should do this and that to organize and engage my students. So, I used those ideas to judge whether the students in the interactions [in the theorizing task] were engaged or not. (P37, Focus group 2)*

Interestingly, the two interviewed participants who had no prior teaching experience reported that they were able to refer back to their previous experiences of observing their English teachers' instruction to theorize learner engagement.

*One of my English teachers was really good. She gave us many tasks to do in each lesson and observed whether we liked them or not, and changed to other tasks to keep us interested. So when I did the theory task, I tried to recall how I engaged as a learner in those different tasks. (P10, Focus group 3)*

These examples highlight instructional experiences, including both teaching and learning opportunities, as an important component of teacher learners' PPK which has the potential to enable them to theorize from their practice, further enforcing the viewpoint that the classroom could be considered to be "both theorized and generative of theory" (Dogancay-Aktuna & Hardman, 2012, p. 105).

### 9.2.3. Knowledge of contexts

The focus group interviews also revealed that teacher learners knowledge of contextual factors contributed to their theory formulation. A number of participants referred to their own teaching and learning contexts while rating the level of learner engagement in the theory task.

*When we talk about engagement, it is contextual. It depends on your students and where you're teaching. In my experience, cultural differences could influence how we see student engagement. I think my cultural background informed my rating of the learners' engagement levels. (P11, Focus group 3)*

P11's comments demonstrate the role of contextual characteristics in shaping teachers' pedagogical judgements. Particularly, she came to understand that learner engagement is not a universal construct and may vary from one context to another.

In a similar vein, P16 considered her teaching context and how it influenced her theorization of learner engagement.

*I don't teach in normal schools with 30 or 40 students in one class. Each of my class has 1 to maximum 8 students, so I can work closely with them, which means I gain a lot of detailed insights about students. Over the years I come up with several theories about teaching and about how to carry out the lessons and what kind of tasks are interesting to engage students in a small class. My theory of learner engagement might be different from those teaching in other contexts. (P16, Focus group 3)*

For P16, the specific context of teaching a small group of students led her to compare her conception of learner engagement with other teachers teaching larger classes. This realization further documents that context awareness is a powerful source of knowledge for L2 teachers to draw on to improve their learning and assist

their decision making (Kumaravadivelu, 2012). Overall, the focus group data provided insights into different aspects of the teachers' PPK that enabled them to generate their theory of learner engagement.

## 10. Teachers' perceptions of the theorizing experience

The participants were overall positive about the usefulness of various aspects of the theorizing task in assisting them to theorize learner engagement. First and foremost, they acknowledged the advantages of being given authentic examples of learner interaction to get started with.

*A real classroom situation like that provided us with more detailed information and I think it was beneficial to generate our understanding of the theory. Also, the transcript is very clear; we can easily look for evidence that students are engaged in class. (P3, Focus group 1)*

The use of authentic classroom interaction episodes in the engagement-rating activity proved to be a useful starting point for the participants to think about how engagement is manifested in classroom interaction. By teasing out specific features of learner interaction in the given episodes, they were subsequently able to identify common aspects that characterize different levels of learner engagement in a language task.

Additionally, the sequencing of the different activities in the theorizing task helped the participants to gain insight into the process of theory formation and the role of reality and practice in this procedure.

*Doing the task made me think about how language learning theories are formulated. Is it because a researcher observes something first and then thinks about it and eventually raises a theory, or is it that he comes up with the theory and, eventually, he says, like: "OK, I just have this idea and I'm going to test it"? From the activity that we did it looks like theories could come from observing real-life phenomena and making generalizations. (P16, Focus group 3)*

The sequence of the theory task, which included reading and analysing transcripts of learner interactions and rating engagement levels, followed by generating a definition of learner engagement, appeared to inspire the participants to think further about theory generation and become familiar with the process of forming theory from empirical evidence (La Velle & Flores, 2018). This realization, arguably, is a promising step toward enabling L2 teachers to see their practice as crucial and undetachable from theory.

Also, the theorizing task was perceived as an opportunity for the teachers to view theory in a critical light.

*What impressed me a lot in this activity is that we were guided to connect theories with examples and generate our own theories. We don't just accept theories and what researchers say. It would be better for us to generate theories. (P30, Focus group 3)*

It is evident that the theorizing task encouraged the participants to be more critical about theoretical concepts introduced to them during the course of their study. Instead of readily accepting theories, through this theorizing experience they learned that they were also capable of forming theories based on real-life examples and experiences.

Finally, the final stage of the theory task, which was for the teacher learners to discuss and compare their theory with expert theorization of learner engagement, helped to enrich and deepen

their learning experience. Particularly, they were able to evaluate the soundness of their theories (Borg, 1999, 2006) against more established expert theories.

*When I compare my own definition with researchers' definitions, I could see the difference and then I can improve my definition instead of just accept their definition ... It's a rewarding learning process. (P14, Focus group 3)*

The theorizing process seemed to have enabled P14 to not only be a critical consumer of expert theories (Bartel, 2005), but also a confident theoriser of practice (Edge, 2011). This newfound awareness led her to feel more satisfied with her overall teacher education experience.

## 11. Teachers' perceptions of their ability to theorize from practice

When asked to share their opinions on L2 teachers' ability to theorize from practice drawing on their experience with the theorizing task, the participants' responses were mixed. While the majority were confident that they could and should contribute to theory generation as L2 teachers, a few others remained skeptical. The teachers who were in favour of theorizing interpreted theory along the same line as 'theory with a small t' (Atkinson, 2010). They were convinced that they needed to personalize established/expert language learning and teaching theories to make them suitable for their contexts. One participant took the example of teachers' corrective feedback, a concept introduced in the current ISLA teacher education course, to illustrate her viewpoint.

*Let's say some empirical studies say, maybe, explicit or whatever correction is the best way and then as a language teacher I might question: is it really the best way? So, when I am teaching, I'll just try to use six different types of corrective feedback and test if this is the most effective way. And, eventually, I might come up with the solution: yes, it is or no, it's not. So I would say research may provide us with an academic theoretical framework, but as teachers we need to eventually come up with a final theory based on our experiences. (P2, Focus group 1)*

P2's comment epitomizes the process of L2 teachers personalizing expert theories from their teaching experiences (i.e., theorizing from practice). Alongside acknowledging the value of theory in informing their teaching, the teacher learners demonstrated that they were able to project themselves actively testing these theories and adapting them according to their own contexts.

Most importantly, the participants were able to realize their role in bridging the well-known yet contestable gap between theory and practice in teacher education (Allen & Wright, 2013).

*I think by generating theory, second language teachers could link theory and practice together. It's quite essential for teachers to learn theories and apply and adapt them through our teaching practice. (P9, Focus group 2)*

P9's response was representative of the viewpoint of many focus group participants. They realized that as teacher learners who had been learning about L2 theories in teacher education courses and who would subsequently return to or start teaching in their respective contexts, they should be proactive in making learned knowledge and theories useful for specific teaching situations.

Conversely, a small number of participants were apprehensive about the feasibility of L2 teachers theorizing from practice. One of

the reasons was because they considered themselves "less expert than theorists" (Clarke, 1994, p. 13).

*To generate a theory, I think it is very hard because you have to be as great as great scholars in order to do that. I don't think I will be able to do that. (P8, Focus group 2)*

P8's conceptualization of theory was synonymous with big ideas and ideologies (i.e., Theory with a big T). Therefore, theorizing, in her view, was beyond her ability and exclusively concerned with theorists. In a similar vein, P5 did not think it was her responsibility as practising teachers to involve in theorization.

*I won't generate my theory. I just follow what researchers say as theory and practice are two different things. My main job is teaching. (P45, Focus group 1)*

P5 drew a line between teachers and researchers (Medgyes, 2017; cf. McKinley, 2019), viewing theory generation as largely researchers' forte.

Finally, some participants differentiated between teacher theory and expert theory, and held different attitudes toward each type.

*I think teachers cannot generate academic theory, but they know what they are doing and which parts of the activities are good. They have their own ideas of what works well or not for their students. (P6, Focus group 2)*

*For me, I think, it's not hard to generate a theory, but I am not sure if it's academic enough ... (P2, Focus group 1)*

Notwithstanding acknowledging and supporting teachers' building of personal theories, these participants did not think L2 teachers were able to contribute to the formation of theory, which they perceived as mainly concerning theorists and researchers. These mixed findings reflected an interesting divergence in how teacher learners in the present study viewed the particularities of their professional responsibilities and situated themselves in the theory and practice discourse.

## 12. Discussion

### 12.1. L2 teachers as theorizers

Findings of the present study show that the teacher learners were able to generate their theory of learner engagement after participating in a systematically designed theorizing task. They conceptualized learner engagement as comprised of three aspects: cognitive, social, and emotional. The teachers' conceptualization appears to align strongly with the engagement frameworks proposed by researchers that emphasize the multifacetedness of the construct of learner engagement (Dörnyei & Mercer, 2020; Hiver et al., 2021; Mercer, 2019, pp. 1–19; Philp & Duchesne, 2016; Svalberg, 2009). Even though the teachers did not articulate their theory using abstract vocabulary, they were able to generalize from concrete examples of practice (i.e., observation of learner interactions) and their theorization was strongly aligned with researchers' conceptualization of the construct (Dao, 2021; Dao et al., 2021).

Importantly, the teachers' PPK was found to play an important role in this theorizing process: they were able to significantly draw on their previously acquired knowledge, consisting of both theoretical knowledge (i.e., knowledge of applied linguistics and TESOL) and practical knowledge (e.g., knowledge of authentic classroom encounters and of learning and teaching contexts), to formulate

their theory of a developing L2 concept. These findings further highlight the contribution of PPK to teacher learning (Golombek, 1998; Tsang, 2004; Wyatt and Borg, 2011), particularly theory building. While some scholars maintain that teachers and researchers/theorists are two different 'species', and only very rarely do they cross paths (Medgyes, 2017), our research findings arguably suggest that L2 teachers are capable of theorizing from practice (Kumaravadivelu, 2001, 2012; Payant & Mason, 2018), should they be given the opportunity. The researcher and practitioner identities could therefore be complimentary, not necessarily exclusive of each other. In fact, it is through the process of engaging in theory formulation that L2 teachers become reflective and well-informed practitioners, thus becoming more confident and empowered as they conduct their teaching (Paran, 2017).

### 13. Addressing the theory-practice nexus in teacher learning: role of PPK

Previous research exploring the impact of teacher learning in language teacher education programs on their subsequent teaching practice has frequently reported mismatches between what is learned and what actually happens in the classroom (see Dao et al., 2021; Allen & Wright, 2013). While this mismatch could be argued to stem from different vantage points from which teacher education is viewed and thus conducted, it is not uncommon to find comments such as the content of teacher education courses is too theoretical and that it does not prepare teachers well for the teaching realities they later face (Hennebry-Leung et al., 2019; Marsden & Kasprovicz, 2017). Nevertheless, this does not seem to be the case with the teacher-learner participants in this study. As a result of the theorizing experience, they learned to be critical about learned professional theories, and realize the necessity of drawing on their PPK to personalize theories according to their teaching contexts (i.e., theorize from practice). This leads us to argue that alongside external stakeholders such as teacher education programs and language teacher educators, L2 teacher learners are also responsible for bridging the divide between theory and practice in the field (Lightbown, 2000; Spada, 2015). Teachers need to be made aware that professional theories are scarcely readily applicable, and they would in most cases need to rely on their PPK to help them personalize and adapt these theories (Edge, 2011). In this case, PPK, which is a comprehensive combination of beliefs, experience, and knowledge (Golombek, 1998), is a valuable asset that could enable L2 teacher learners to meaningfully connect their (often) theoretical learning with their instructional practice.

### 14. Theorizing tasks

Our findings also point to the importance of systematically designed theorizing tasks in motivating teacher learners to generate theories within teacher education courses. The theorizing task used in the current study was staged and scaffolded to include observation of practice, abstract conceptualization, dialogic discussion, and refining and evaluating of teacher theories in relation to expert theories (Borg, 1999, 2006). The use of authentic classroom examples reportedly served as a useful prompt to activate the participants' PPK, which enables them to formulate their theory of learner engagement. Although theory may also be formed through original argument based on research (La Velle & Flores, 2018), for L2 teachers empirical evidence that bears resemblance to actual teaching practice may be more beneficial as it may trigger their real life experiences in learning and teaching languages. Furthermore, the final stage of the theorizing task, which involves critical comparison between teachers' theory and that of experts, proved crucial in enabling the teacher learners to verify and confirm their

theorization in light of scientific understandings. This practice helps teachers critically connect their prior personal knowledge and experiences with scientific concepts, leading to instructional practices that combine well theoretical learning and personal experiences (Johnson & Golombek, 2011, 2020). It should also be noted that learner engagement is just one example among many concepts that L2 teachers can work with. Teacher educators may use a similar theorizing task with other L2 teaching and learning concepts, suggestively those less commonly defined by theorists to allow more room for teacher learners to draw on their PPK.

### 15. Resisting conventionalized thinking about L2 theory: the role of teacher education

Despite being the minority, some teacher learners in our study expressed their scepticism about the feasibility of L2 teachers theorizing from practice. That is, they mainly viewed theory from a big T's (Atkinson, 2010) perspective, thereby denying themselves of the opportunity to actively and meaningfully engage with theory and research. This line of thinking is understandable and not uncommon, especially among in-service teachers who are more often than not heavily occupied by a myriad of tasks and responsibilities associated with their teaching job (Sato & Loewen, 2019; Ur, 2017, pp. 132–143). These ideological barriers, however, need to be addressed before we expect teachers to be open to theory (Alhassan & Ali, 2020). Teacher education courses could play a crucial part in this process by encouraging L2 teacher learners to continuously reflect on their learning and teaching practice (Farrell, 2019, pp. 38–51; Kramer, 2018), articulating their teaching philosophies in line with acquisition of theory (Crookes, 2015), conducting research to apply theoretical knowledge (Nguyen et al., 2022), or engaging in theorizing tasks as what is described in the present study. The ultimate goal is for L2 teachers to resist deep-rooted thinking that puts themselves on the sidelines of scholarship on L2 teaching and learning, compared to researchers and theorists (Johnson & Golombek, 2020).

### 16. Conclusion: implications for teacher learning and teacher education

The present study explored the viability and effectiveness of incorporating theorizing activities into L2 teacher education courses, taking the ISLA construct 'learner engagement' as a case in point. Our findings show that L2 teacher learners were capable of generating theory of learner engagement drawing on their PPK, and more importantly, the process of involving in theory building resulted in fruitful learning experiences that helped broaden their view toward the role of theory and research for teacher learning and practice. We acknowledge a potential methodological limitation that the teachers were previously exposed to expert theories of motivation in the present teacher education course; this may have influenced their theorization of learner engagement. Nonetheless, our findings provide useful implications for L2 teacher learning and teacher education. First, L2 teachers should be guided to make use of their PPK as an important asset to theorize from practice and enhance their professional learning. Second, the multi-stage theorizing task used in this research proves to be a useful opportunity for teacher learners to "critically examine their role as theorists" (Hennebry-Leung et al., 2019, p. 22), and thus it could be used as a framework for L2 teacher educators to promote theorizing among teacher learners. Finally, L2 teacher educators could integrate critical discussions on theories and theory building into their teacher education courses and/or professional development programs. Specifically, teacher learners should be guided to examine the values of both professional and personal theory, so that they

neither accord too much importance to expert theories nor underestimate the relevance of personal theories. A desired outcome is effective learning for L2 teachers, which is a balanced combination of theoretical and personal knowledge.

### Data availability

The data that has been used is confidential.

### Appendix

#### Interview questions

1. Were you able to generate your own definition/theories of learner engagement? Why/why not?
2. What did you rely on to come up with your own definition of learner engagement?
3. What influenced your formulation of the definition/theory of the engagement construct?
4. How did you feel about being guided with the transcripts, the guiding questions and the professors' advice in order to define learner engagement?
  - Was the guidance provided helpful or not?
  - How did the guidance helped you to formulate your learner engagement definition?
  - Did you really use the guidance to generate your definition/theory?
5. Do you think L2 teachers are able to generate L2 learning and teaching theories like definition of learner engagement? If no why, if yes, what do they rely on in order to generate their own definition/theories
6. Should L2 teachers be encouraged to generate L2 learning and teaching theories in teacher education courses as conducted in this activity in this course? Why/why not?
7. Would it be beneficial for future teachers to generate their own L2 theories? Why/why not? If yes, in what ways?

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