Toward an Instructional WTC-Mediated Model for L2 Classroom Interaction

Chaochang Wang¹ and Wen-Ta Tseng²

Abstract

This study examined the mediating roles of two forms of willingness to communicate (WTC) in the relationship between teachers’ attitudes toward classroom interaction and L2 classroom teaching behaviors. Classroom interaction is held to be pivotal in the acquisition of a second language, and the attitudes of L2 teachers toward it may play a critical role in determining their instructional willingness to integrate it into their teaching and the extent to which it features in their teaching behavior. However, few studies advance this line of research. To address the research gap on this issue, the purpose of this study is to establish an empirical model to examine the causal relationships between the attitudes of L2 teachers toward classroom interaction, their instructional willingness, and their teaching behavior. The empirical data consist of survey responses from 410 Taiwanese high school teachers of English. The structural equation modeling (SEM) results showed that both the general form and the instructional form of WTC significantly mediated the causal relationships between teachers’ attitudes toward classroom interaction and teachers’ L2 teaching behaviors. A multi-group analysis further showed that the two forms of WTC played a more salient mediating role in the practice of senior teachers, defined as those with more than 10 years of teaching experience, than in the practice of junior teachers, defined as those with 10 years or less teaching experience. The research and pedagogical implications are presented in light of the research findings.

Keywords

teacher education, classroom interaction, instructional willingness to communicate, structural equation modeling, multi-group analysis

Introduction

L2 interaction is extensively and strongly promoted in second-language acquisition (SLA; Ellis & Shintani, 2014; Long, 1983; Vygotsky, 1987), and evidence showing its positive impact on language learning has been presented in multiple research studies (e.g., Y. Kim & Taguchi, 2015; Nagao, 2014; Sato, 2017; Wang & Castro, 2010). L2 interaction is especially emphasized in both English as a Second Language (ESL) and English as a Foreign Language (EFL) classroom contexts due to the status of English as an international language used widely for business transactions and educational and interpersonal communication. For this reason, more and more governments of countries in which ESL/EFL is taught have redesigned their national curricula for all school levels to include communicative competence and cultural understanding as goals and to require that the students be given opportunities to use the target language in the classroom (e.g., Ahn, 2011; Carless & Harfitt, 2013; Chang, 2014; Kavanagh, 2012; E. J. Kim, 2011). In this regard, it should be noted that teachers’ attitudes of a key feature of language-teaching innovation—that is, classroom interaction in the target language—are of great importance in fostering teaching innovation in general.

Classroom interaction refers to a collective pedagogical practice that aims at engaging learners in interaction with others inside the classroom. Although there have been some studies undertaken to investigate teachers’ attitudes toward L2 interaction in the classroom (Wang, 2008; Chen, 2000), the way in which such an attitudinal stance may direct the trajectory L2 teachers’ willingness to communicate (WTC) and instructional willingness to communicate (IWTC) in L2 classroom interaction still remains largely unclear.

The purpose of this study, therefore, is to address this gap by establishing a model based on structural equation modeling (SEM) to examine the interplay between teachers’ attitudes toward L2 interaction in the classroom and their WTC, IWTC, and teaching behaviors (TB).

¹Ming Chuan University, Taipei, R.O.C.
²National Taiwan University of Science and Technology, Taipei, R.O.C.

Corresponding Author:

Wen-Ta Tseng, Associate Professor, Department of Applied Foreign Languages, National Taiwan University of Science and Technology, No.43, Keelung Rd., Sec.4, Da’an Dist., Taipei 10607, R.O.C.

Email: wenta.tseng@mail.ntust.edu.tw
Literature Review

L2 Interaction in the Classroom

Interaction in the L2 is considered to be of great importance in SLA (Ellis & Shintani, 2014; Long, 1983; Vygotsky, 1987). The extent to which teachers consider interaction in the L2 to be important and their attitudes toward creating interactional opportunities for students may significantly influence both the teachers’ willingness to integrate communicative components into classroom instruction (IWTC) and the teachers’ related TB (IWTC behavior).

Arguing that interaction with the teacher and/or other more advanced users of an L2 enhances learners’ language and cognitive development, Vygotsky (1987) pointed to the importance of social interaction to a learner’s ability to grow from his or her current learning phase to a proximal learning phase. With regard to the progress of L2 learners, in particular, both Long (1983, 1996) and Swain (1985, 2000) also greatly promoted interaction in the L2. Long (1983, 1996) developed an interaction theory that highlights the advantages of L2 interaction including rich input and meaning-negotiation practices, whereas Swain (1985, 2000) pointed to the need to include learners’ modified output in interactions designed to push learners to use the L2 and modify their utterances based on feedback.

A considerable body of research confirms the relationship between social interaction and L2 learning. In some studies, based on a quantitative or mixed-research methods approach to data collection and analysis, the differential effects on groups subject to different instructional elements are compared (e.g., Y. Kim & Taguchi, 2015; Sato, 2017; Wang & Castro, 2010). The literature also includes studies that rely on a qualitative research method to determine the impact of interactions on the acquisition and use of an L2. For example, Nagao (2014) explored how a female Japanese student in Australia learned to participate in the classroom community through active interaction in the L2 and found that learning took place through active participation.

In addition, studies on corrective feedback, a feature of social interaction, connect this kind of feedback to learning. For example, Lighthown and Spada (1990) found that in communicative contexts, corrective feedback led to learners becoming more accurate in their use of four sets of linguistic features as compared with learners who had not received this kind of feedback. Among the types of corrective feedback, prompts in interaction data as compared with recasts were found to be more effective in directing learners’ attention and in bringing about subsequent self-repair (Havranek, 2002; Lyster & Ranta, 1997). Overall, corrective feedback of various kinds and provided to varying degrees is an integral aspect of L2 interactions such that it mediates learning in this context.

Interaction in the language classroom is generally recognized as taking place in two broad ways: teacher–learner and learner–learner. Each exhibits distinct patterns, which researchers have studied in an effort to determine the ways in which and the extent to which these patterns affect language learning.

In teacher–learner interactions, teacher talk is considered a main source of input (Ellis, 2012). Major patterns studied include the initiation response–feedback pattern (IRF) and teachers’ questioning. Although it tends to constrain learners’ free use of the target language, IRF is the pattern used most frequently in almost every kind of language classroom (Van Lier, 1996), and it can sometimes facilitate learning (Ellis & Shintani, 2014). Furthermore, among the types of questions teachers ask, there are closed or open, and display or referential (Long & Sato, 1983) questions. In Long and Sato (1983), language teachers were found to use more display questions, to which the teacher knows the answers, than referential questions, to which answers vary depending on the learner. However, of these two types, referential questions have been found to be more intellectually demanding (Thornbury, 1996) and to elicit more interaction such that their use in the classroom is strongly promoted (Chaudron, 1988).

Learner–learner interaction is the other broad kind of classroom interaction. To optimize this kind of interaction, teachers may alternate between two types of teaching activities, group work and pair work—often with an emphasis on the first of these. Ellis (2012) argued in favor of group-work interaction although Pica (1987) warned that despite the classroom emphasis on this kind of work, it does not guarantee success in SLA. However, research shows that group interaction as compared with interaction in pairs provides more opportunities to acquire new vocabulary (Dobao, 2014), to practice language in a variety of ways, to improve the accuracy of learners’ language production, to enable self- and other corrections, to negotiate meaning, and to elicit two-way task performance (Long & Porter, 1985). Overall, both teacher–learner and learner–learner types of interaction are reported to facilitate language learning and are strongly encouraged in the literature in this area.

Teachers’ Attitudes

In view of the importance of interaction in the L2 to acquisition of the L2, teachers’ attitudes toward it play a crucial role in their intention to integrate this kind of interaction into their classroom practice, and, hence, they are an important area for investigation.

A number of studies focus on teachers’ views on language learning and teaching in general, including some in which both teachers’ and students’ views are investigated (e.g., Brown, 2009; Chang, 2014) and others in which teachers’ views in relation to interactional opportunities for students are explored (e.g., Wang, 2000, 2008; Chen, 2000). For example, Chen (2000) investigated Taiwanese senior high school teachers’ views of teaching grammar and found that most of the teachers considered providing interactional opportunities to students to be important although they were
uncertain about the instructional language to use with students, and they also deemed it important to teach grammar rules explicitly and systematically. Wang (2008) investigated 716 Taiwanese high school teachers’ attitudes toward both grammar-oriented teaching and communication-oriented teaching, the latter of which focuses on engaging students in interactions using the target language. According to the results, the teachers expressed a preference for communication-oriented teaching, although their reported instructional practices reflected features of both approaches. However, research on teachers’ attitudes toward L2 interaction promoted theoretically and empirically in SLA is scarce such that further investigation is necessary.

WTC in L2

WTC refers to the intention to involve and the probability of involving oneself in interactions given the opportunity to do so (Kang, 2005; MacIntyre et al., 1998). Given that a principal motivation for learning an L2 is to use it for communicative purposes with people from a different speech community (MacIntyre, 2007), L2 WTC—which according to research has a causal association with L2 use (Hashimoto, 2002)—is considered an important individual difference factor in L2 acquisition (MacIntyre, 2007; Matsuoka & Evans, 2005). In light of the salience of learners’ L2 WTC, research has shown that it can be directly and indirectly explained by learners’ individual differences with respect to antecedents such as communicative anxiety (MacIntyre et al., 2003), personality (MacIntyre et al., 1999), attitudes and motivation (Wang et al., 2019; Yashima, 2002; Yashima et al., 2004), self-perceived communicative competence and self-confidence (Cao & Philp, 2006; Hashimoto, 2002; MacIntyre & Charos, 1996; Yu, 2009), and learning belief (Fushino, 2010; Peng, 2014). Similarly, many contextual antecedents have also been found to be predictive of learners’ L2 WTC, such as classroom environment (Peng & Woodrow, 2010), group size (Cao & Philp, 2006; Zarrinabadi et al., 2014), cultural background (Cao & Philp, 2006), and teacher-related factors (Kang, 2005; Mystikowska-Wiertelak, 2016; Tavakoli & Zarrinabadi, 2018; Wen & Clément, 2003; Zarrinabadi, 2014; Zarrinabadi et al., 2014). Among the teacher-related factors, research has suggested that feedback from teachers is fundamental in promoting learners’ L2 WTC (MacIntyre et al., 2011). Importantly, Zarrinabadi and his associates further emphasize that explicit corrective feedback is more facilitative than implicit corrective feedback in developing learners’ L2 WTC (Tavakoli & Zarrinabadi, 2018), and teachers’ positive belief in the adoption of delayed error correction and the use of motivational strategies has been found to be critical for enhancing learners’ L2 WTC (Zarrinabadi et al., 2014). It is noteworthy that Zarrinabadi’s (2014) study specifically shows that “teachers’ wait time, error correction, decision on the topic, and support exert influence on learners’ WTC” (p. 288). Clearly, the literature suggests that teachers play a decisive role in influencing learners’ L2 WTC and to be effective, must cultivate a positive attitude in relation to the use of teaching techniques including explicit corrective feedback, delayed error correction, motivational strategies, and wait time, as these instructional elements are useful in enhancing L2 WTC.

Teachers’ WTC in English

Despite a considerable body of research on links between learners’ L2 WTC and its related variables, comparatively few studies specifically address L2 teachers’ WTC. In a study on preparing teachers for English Content and Language Integrated Learning (CLIL), Aiello et al. (2017) administered surveys to and interviewed 35 Italian teachers who were to teach CLIL courses using English as the language of instruction. The researchers found that most of the teachers perceived their own English proficiency to be unsatisfactory and revealed high levels of foreign-language anxiety. On this basis, the researchers concluded that the teachers had low L2 WTC and argued that “WTC must be a primary goal of language instruction, including the instruction of future CLIL teachers” (p. 12).

The pressing need for L2 teachers to be willing to communicate in English is not only evident in the CLIL context (Aiello et al., 2017) but also in the ESL setting, in which English is used as the primary means of communication in studying many subjects from primary through higher education (Fahim & Dhamotharan, 2016; Lo, 2018; Yousef et al., 2013). For instance, based on a survey of 250 Malaysian ESL teachers from 25 schools located in both urban and rural areas, Lo (2018) found that the rural ESL teachers’ WTC in English was significantly lower than that of urban ESL teachers in group discussion, interpersonal communication, public speaking, and talking in meetings. In a similar vein, Fahim and Dhamotharan (2016) also surveyed Malaysian ESL teachers’ WTC, but their investigation focus was on pre-service teachers rather than in-service teachers and they found that the pre-service teachers achieved only a moderate level of WTC in English before becoming in-service teachers. Yet, another survey study with Malaysian pre-service English teachers was conducted by Yousef et al. (2013), who took one step further by conducting a SEM analysis to determine the causal relationships between motivation, communication competence, communication strategies, communication apprehension, and WTC in English. According to their findings, WTC in English is positively and directly predicted by communication competence and communication strategies, but adversely affected by communication apprehension. On balance, these studies indicate that ESL in-service teachers’ WTC in English is not consistent across geographic regions and that ESL pre-service teachers’ WTC in English is at best moderate and influenced by a number of personal factors.

The scope of the research on L2 teachers’ WTC focuses principally on the effects of communication-related factors
such as communication competence, communication strategies, and communication apprehension. The ways in which non-communication factors, such as teachers’ attitudes toward classroom interactions, may influence EFL teachers’ WTC and TB remain largely unclear and await rigorous empirical analysis. Marzano (1992) has identified the needed foundation for good teaching clearly enough: “Good teachers have always tried to foster positive attitudes and perceptions about learning” (p. 27). Kuh et al. (2010) also argue that “meaningful interactions between students and their teachers are essential to high-quality learning experiences” (p. 207).

Taken together, learners are likely to benefit from classroom interactions co-constructed by teachers and learners, both between teachers and learners and among learners. Thus, a positive attitude on the part of teachers toward classroom interactions becomes critical and decisive in bettering students’ learning.

In a pioneering study on verifying a causal SEM model, Wang et al. (2019) found that learners’ attitudes toward teacher–learner interaction and learner–learner interaction had differential effects on the learners’ L2 WTC and learning behaviors. Hence, presumably and logically, teachers’ attitudes toward teacher–learner interaction and learner–learner interaction may likewise exert varying degrees of explanatory power over both the teachers’ L2 WTC and their TB. However, a model comprising teachers’ L2 WTC, attitudes toward classroom interactions, and TB cannot be considered theoretically complete, because it is teachers’ instructional willingness to integrate interactional elements into their L2 instruction that really matters. To elaborate, as critically reviewed above, since L2 classroom interaction is of great importance in constructing positive learning experience and approaching higher linguistic attainment for students, it is argued that an awareness of the importance of L2 classroom interaction is necessary yet, by no means, sufficient. Language teachers need to take one step forward to becoming willing to incorporate and implement related L2 interactional constituents such as the use of corrective feedback and motivational strategies into their instructional setting, that is, the IWTC.

In light of this pedagogical premise, we conceptualize an innovative construct—instructional willingness to communicate—to specifically point to a critical yet rarely noticed feature that should be of immense practical significance to teachers’ L2 instruction in the investigation of the study.

In sum, teachers’ attitudes toward classroom interactions and TB are inextricably connected in the nexus of teachers’ WTC in English and their IWTC in English. Due to the fact that the associations between teachers’ attitudes toward L2 interactions, teachers’ L2 WTC and IWTC, and their TB still awaits to be unlocked in the existing literature, the purpose of the present study is to address this research gap by taking a SEM approach to investigate the potential causal relationships among the four focal research variables. The specific research questions (RQs) at the center of this study are described in the next section.

Figure 1. Proposed framework for analysis.

Note. ACI = attitude toward classroom interaction; WTC = willingness to communicate; IWTC = instructional WTC; TB = teaching behavior.

Research Questions

RQ 1: Do the attitudes of teachers toward L2 classroom interaction (ACI) contribute to their general willingness to communicate in the L2 (WTC) and to their instructional willingness to communicate in the L2 (IWTC)?

RQ 2: Do teachers’ WTC and IWTC contribute equally to L2 instructional classroom teaching behaviors (TB)?

RQ 3: To what extent can WTC and IWTC mediate the causal relationships between ACI and TB?

RQ 4: To what extent will senior L2 teachers and junior L2 teachers differ in the causal relationships considered in RQ1, RQ2, and RQ3?

To address these questions, the researchers proposed an IWTC-mediated model (Figure 1).

Research Hypotheses

The relationships between teachers’ attitude toward classroom interaction (ACI), WTC, IWTC, and TB can be considered theoretically and empirically. In general, a teacher’s attitude toward a given task has been suggested to have an impact on his or her L2 WTC (e.g., Wang et al., 2019; Dörnyei & Kormos, 2000; Fushino, 2010; Peng, 2014; Yu, 2009). Furthermore, according to one study, pre-service teachers regard using an L2 in the classroom as constituting a considerable challenge (Viafara, 2011). Therefore, in the present study, we hypothesize that teachers’ attitudes can influence their WTC and IWTC. Similarly, as L2 WTC has been shown to affect WTC behaviors (e.g., Dörnyei & Kormos, 2000; Hashimoto, 2002), it is logical to hypothesize that both WTC and IWTC influence TB in the classroom. IWTC is operationalized as L2 teachers’ willingness to integrate L2 communicative, interactional components into their instructional setting, which could be directly affected by teachers’ attitudes toward L2 classroom interaction as well as their WTC state.
Finally, we further hypothesize that the inner causal relationships, as specified in Figure 1, should vary with L2 teachers’ teaching experiences. Research has shown that compared with junior L2 teachers, senior L2 teachers are more capable of noticing learners’ learning needs and thus are more able to improvise in how they respond accordingly (Richards, 1998; Richards et al., 1998). In particular, senior L2 teachers have been found to be more attentive to language instruction per se, that is, the subject matter itself, whereas novice L2 teachers need to spend more time on classroom management (Breen et al., 2001; Nunan, 1992; Woods, 1996). The process through which novice teachers become experienced, seasoned teachers, however, is a lengthy one. Berliner (2004) suggests that “a reasonable answer to the question of how long it takes to acquire high levels of skill as a teacher might be 5 to 7 years, if one works hard at it” (p. 201). In other words, on average, teachers need to spend more than 7 years at the very least mastering instructional skills, if they do not try hard enough.

In the present study, two criteria are used to determine whether an L2 teacher should be considered experienced or novice. One is to follow Berliner’s suggestion, and the other is to follow the cultural protocol typically followed in research settings such as the present one. The research setting is in Taiwan, where teachers receive a Senior Teacher Certificate when they have dedicated 10 years to their teaching careers. Therefore, in the present study, teachers are considered novice (or junior) or experienced (or senior) based on whether they passed the 10-year point. To summarize, the discussion thus far suggests that there are differences in the interplay of the variables between experienced L2 teachers and those with less teaching experience. The following research hypotheses are considered herein:

**Hypothesis 1:** Teachers’ ACI significantly predicts both WTC and IWTC.

**Hypothesis 2:** Teachers’ WTC significantly predicts L2 IWTC.

**Hypothesis 3:** Both teachers’ WTC and IWTC can significantly predict TB although these differ in magnitude.

**Hypothesis 4:** There is a difference in the interplay of the communication variables between teachers with more than 10 years of teaching experience and those with 10 years or less teaching experience.

### Method

In this study, we investigated the attitudes of teachers toward classroom interaction with respect to using an L2 (English) in their teaching and this variable’s interactional relationships with their WTC, their willingness to provide interactional opportunities in the classroom, and their reported teaching practices into which L2 interaction was integrated.

### Participants

As part of a larger research project, 434 teachers of English teaching at 17 junior high schools, 33 senior high schools, and 3 comprehensive junior–senior high schools in the urban areas and mostly the northern part of Taiwan were invited to respond to a questionnaire. Twenty-four outliers were excluded from the data set such that data from 410 teachers were used for the analysis. Most of the English-language teachers teach 16 to 20 hr a week. In terms of demographic variables as revealed in Table 1, 16.59% (68) of the teachers reported their gender as male and 83.41% (342) as female; 57.32% (235) were teaching at a senior high school, 35.12% (144) at a junior high school, and 7.56% (31) at both types of school; 64.63% (265) were holding a master’s degree. In terms of their teaching experiences, 61.92% of the teachers had been teaching English for more than 10 years, 18.78% for 6 to 10 years, and 19.02% for 1 to 5 years. The participants were invited with the assistance of the academic affairs directors of individual schools selected on the basis of convenient sampling.

In Taiwan, EFL education had been included in the elementary school curriculum for third graders and above since 2001. In addition, the Ministry of Education (MOE) had revised the English-language curricula twice in the past 10 years by guiding the development of textbooks and teaching techniques. With regard to English-language education at both the junior and the senior high school levels, the curriculum guidelines emphasize the importance of providing instruction that advances learners’ communicative competence and cross-cultural understanding (MOE English...
Curriculum Guidelines for Senior High Schools, 2008). As such, the promotion of L2 interaction is in line with the goals of Taiwan’s English-language curricula for both high school levels.

**Instruments**

The questionnaire used to collect data relied on four scales— 
*Attitude toward Classroom Interaction in the L2 (ACI), Willingness to Communicate in the L2 (WTC), Instructional Willingness to Communicate in the L2 (IWTC), and L2 Teaching Behavior (TB).* The scales were developed on the basis of those employed in previous studies and pilot-tested with exploratory factor analysis (EFA) and reliability analysis.

*Attitude toward Classroom Interaction in the L2 (ACI)* consisted of seven items adopted from Wang’s (2017) *Perceptions of Classroom Interaction in English* to determine teachers’ attitudes toward classroom interaction in the L2 with respect to the use of English. Two factors from EFA were extracted (Kaiser–Meyer–Olkin [KMO] = .86, $\chi^2 = 605.17, df = 21, p < .001$); one with three items ($\alpha = .92$) scrutinizing ACI between the teacher and the students (ACI$_{ts}$) and the other with four items ($\alpha = .90$) scrutinizing ACI between the students (ACI$_{ss}$). Two ACI$_{ts}$ item examples were “I value opportunities to interact with my students” and “The opportunity to interact with my students is important for their English-language learning.” Two ACI$_{ss}$ items were “I like my students to have dyadic interaction in English” and “I value activities in which my students do group work in English.” The ACI instrument is a 6-point Likert-type scale, ranging from 1 (strongly disagree) to 6 (strongly agree).

*Willingness to Communicate in the L2 (WTC)* consisted of five items adapted from Yashima (2009). After the pilot test with EFA, only one common factor was extracted (KMO = .87, $\chi^2 = 409.69, df = 10, p < .001, \alpha = .93$). A lead question with two sample items is presented below:

Lead question: “When given the choice, how willing are you to communicate in English in the following situations?”

1. “When I have a chance to make a presentation in front of a large group.”
2. “When I have a group discussion with my colleagues.”

The teachers were asked to respond with 1 for “very unwilling,” 2 “unwilling,” 3 “somewhat unwilling,” 4 “somewhat willing,” 5 “willing,” and 6 “very willing.”

*Instructional Willingness to Communicate in the L2 (IWTC)* consisted of four items developed to determine teachers’ willingness to use the L2 (English) with students and to engage them in interacting in the L2 with other students. The EFA results showed that all four items loaded on the same factor (KMO = .77, $\chi^2 = 277.46, df = 6, p < .001, \alpha = .90$). A lead question with two sample items is given as follows:

Lead question: “When the time and situation permit, indicate whether or not you would choose to do the following.”

1. “I will speak in English to motivate them to interact in English.”
2. “I will provide opportunities for L2 interaction in the classroom.”

The generation of IWTC items was in principle referred to the empirical findings of related WTC literature, for example, the adoption of motivational strategies and the use of delayed error-correction techniques which are conducive to promoting learners’ L2 WTC (Zarrinabadi et al., 2014). Hence, the IWTC items could attain robust content validity with a reference to the prior research as well as strong construct validity as revealed in the current investigation. The participants answered 1 for “very unwilling,” 2 “unwilling,” 3 “somewhat unwilling,” 4 “somewhat willing,” 5 “willing,” and 6 “very willing.”

Finally, *L2 Teaching Behavior (TB)* consists of four items. At the pilot stage based on EFA, the EFA results also indicated that all four items loaded on the same factor (KMO = .82, $\chi^2 = 293.99, df = 6, p < .001, \alpha = .91$). The teachers were asked to indicate how often they would take certain actions as the situation permitted. Example items were “I use English to chat with my students” and “I share my experiences/stories in English.” The creation of TB items was essentially derived from the genuine verbal quotes extracted from the interview data so that the content validity of the TB scale could be ideally fulfilled. All the items required responses indicating the frequency with which the teachers engaged in a given instructional behavior with 1 for “never,” 2 “seldom,” 3 “sometimes,” 4 “somewhat frequently,” 5 “frequently,” and 6 “very frequently.”

**Results**

*Analysis Using Descriptive Statistics*

The results of the descriptive analysis of each latent variable are listed in Table 2, which also shows sample correlations between the latent variables. The results show that the teachers tended to have a positive ACI between teacher and students ($M = 5.09, SD = 0.70$) and between the students themselves ($M = 4.86, SD = 0.73$). The results also show that most of the teachers reported a high level of IWTC with their students using the target language ($M = 5.14, SD = 0.69$). However, the teachers’ general WTC in English given the choice is relatively low: the mean value of 4.17 denotes...
“somewhat willing” to communicate in the L2 ($M = 4.17$, $SD = 0.69$). Furthermore, the frequency of their reported classroom teaching using English to encourage classroom interaction is also quite low ($M = 3.77$, $SD = 1.06$).

### Structural Model

For a SEM study with a sample size of a few hundred, the existence of a few outliers can easily cause the assumption of multivariate normality to be violated (Byrne, 2010), which significantly distorts the model fit indices and test statistics computed for the tested empirical model (Bentler & Wu, 2006). In data that has a multivariate normal distribution, the normalized estimate of Mardia’s coefficient should be below a cutoff threshold of 5. To resolve this common issue, Bentler and Wu suggested that the robust comparative fit index (CFI), the Bentler–Bonett NNFI (.96) values also far-exceeded the cutoff threshold (.90). Therefore, in summary, all three model fit indices showed good fit with the empirical data and supported the viability of the proposed IWTC-mediated model.

Figure 2 and Table 3 show the standardized causal path coefficients associated with the corresponding model paths, all of which reached statistical significance at the .001 level. Considering the causal relationships examined in the structural model, teachers’ L2 WTC and their IWTC in English were both significant determinants of the magnitude of integrating L2 interaction into classroom practice (TB). The structural coefficients were $\beta = .27$ ($f^2 = .08$) for the path from WTC to TB and $\beta = .44$ ($f^2 = .24$) for the path from IWTC to TB. That is, compared with WTC, IWTC played a more salient role in influencing classroom interactional practice. Similarly, WTC contributed significantly to its instructional variant, that is, IWTC ($\beta = .20, f^2 = .04$). Furthermore, teachers’ attitudes toward interacting with students in the target language (ACI$_s$) could also significantly and directly predict teachers’ WTC ($\beta = .22, f^2 = .05$) and IWTC ($\beta = .52, f^2 = .39$). In addition, the teachers’ attitudes toward classroom interaction between students (ACI$_s$) could exert significant predictive power over their WTC ($\beta = .21, f^2 = .04$) and IWTC ($\beta = .20, f^2 = .04$). By comparison, ACI$_s$ ($\beta = .52, f^2 = .39$) was a stronger predictor than its counterpart ACI$_{ts}$ ($\beta = .20, f^2 = .04$) in influencing teachers’ IWTC. On the scale metric of $f^2$, the effect size of ACI$_s$ was nearly 10 times larger than that of ACI$_{ts}$ in predicting L2 teachers’ IWTC, thus underscoring the critical nature of L2 classroom interaction between teachers and students.

In addition to showing the computation of the direct effects, Table 4 shows the mediating effects of both WTC and IWTC. That is, we further tested the mediating effects of the two mediators using the Sobel test (Sobel, 1982). A mediating effect refers to the power of one variable for another through a mediator variable. The results indicated that both WTC and IWTC significantly mediated the causal relationships from ACI$_{ts}$ to TB and from ACI$_{ss}$ to TB, respectively. To elaborate, ACI$_{ts}$ could have a significant indirect effect on TB via mediation by WTC ($\beta = .22 \times .27 = .06, p < .001$) and IWTC ($\beta = .52 \times .44 = .23, p < .001$). Likewise, ACI$_{ss}$ could also indirectly influence TB via mediation by WTC ($\beta = .21 \times .27 = .06, p < .001$) and IWTC ($\beta = .20 \times .44 = .09, p < .001$). By comparison, the mediating effects of both WTC and IWTC were more pronounced on the indirect paths from ACI$_{ts}$ to TB than on those from ACI$_{ss}$ to TB.

In the case where WTC mediated the causal relationships between the two ACI variables and IWTC, it was found that WTC could significantly mediate the causal paths both from ACI$_{ts}$ to IWTC ($\beta = .22 \times .20 = .04, p < .001$) and from ACI$_{ss}$ to IWTC ($\beta = .21 \times .20 = .04, p < .001$). Concerning the macro-causal system comprising WTC, IWTC, and TB, IWTC could also significantly mediate the causal route from WTC to TB ($\beta = .20 \times .44 = .09, p < .001$). In a similar vein, in the case where the most complex mediating combinations arose (i.e., ACI$_{ss}$ → WTC → IWTC → TB and ACI$_{ss}$ → WTC → IWTC → TB), the results further showed that the mediating effects of these two routes still reached statistical significance, notwithstanding the small values (.02) for each route.

To summarize, the SEM results lent empirical support to the first three hypotheses proposed in this study. That is, all the causal paths hypothesized in the model were empirically valid. Both ACI$_{ts}$ and ACI$_{ss}$ could exert significant explanatory power over WTC and IWTC, and both WTC and IWTC could likewise significantly mediate the causal relationships between the two ACI-related predictors and TB. The most important research finding was that the causal route from

| Latent factor | $M$ | $SD$ | ACI$_{ss}$ | ACI$_{ts}$ | WTC | IWTC |
|--------------|-----|-----|------------|------------|-----|------|
| ACI$_{ss}$   | 4.86 | 0.73 |            |            |     |      |
| ACI$_{ts}$   | 5.09 | 0.70 | .66        |            |     |      |
| WTC          | 4.17 | 0.93 | .34        | .33        |     |      |
| IWTC         | 5.14 | 0.69 | .61        | .69        | .43 |      |
| TB           | 3.77 | 1.06 | .40        | .43        | .45 | .50  |

Note. WTC = willingness to communicate; IWTC = instructional WTC; TB = teaching behavior.

**Table 2. Descriptive Statistics and Correlations Between the Latent Variables.**
Table 3. Standard Regression and Effect Size Estimates.

| Path            | Estimate | ES ($f^2 = R^2/1-R^2$) |
|-----------------|----------|------------------------|
| ACI$_{ts}$ → WTC | .22      | .05                    |
| ACI$_{ss}$ → WTC | .21      | .04                    |
| ACI$_{ss}$ → IWTC | .52      | .39                    |
| WTC → IWTC      | .20      | .04                    |
| WTC → TB        | .27      | .08                    |
| IWTC → TB       | .44      | .24                    |

Note. The subscript symbols $s$, $m$, and $L$ refer to small, medium, and large effect sizes, respectively. ACI = attitude toward classroom interaction; WTC = willingness to communicate; IWTC = instructional WTC; TB = teaching behavior.

ACI$_{ss}$ to TB via IWTC created the greatest effect size (.39 + .24 = .63) in terms of L2 teachers’ classroom interaction practice in the L2 with their students, which will be considered further in the discussion section.

Table 4. Direct and Mediating of the Outcome Model.

| Predicted variable | Predictor variable | Direct effect | Mediating effect |
|--------------------|--------------------|---------------|-----------------|
| WTC                | ACI$_{ts}$         | .22           |                 |
| WTC                | ACI$_{ss}$         | .21           |                 |
| IWTC               | ACI$_{ts}$         | .52           | .04 (via WTC)   |
| IWTC               | ACI$_{ss}$         | .20           | .04 (via WTC)   |
| IWTC               | WTC                | .20           |                 |
| TB                 | ACI$_{ts}$         | .06 (via WTC) | .23 (via IWTC)  |
| TB                 | ACI$_{ss}$         | .02 (via WTC and IWTC) | .09 (via IWTC) |
| TB                 | WTC                | .27           | .09 (via IWTC)  |
| TB                 | IWTC               | .44           |                 |

Note. All the parameter estimates are statistically significant at the .01 level. ACI = attitude toward classroom interaction; WTC = willingness to communicate; IWTC = instructional WTC; TB = teaching behavior.
Model comparison between senior and junior L2 teachers. In Figures 3 and 4, further details from the model comparison between the senior L2 teachers and the junior L2 teachers are shown. Table 5 reports the standardized path coefficients of the two types of teacher models. First, the causal route from ACI\textsubscript{ts} to TB via the WTC of the junior L2 teachers could not be successfully enacted due to the insignificant paths for both ACI\textsubscript{ts} to WTC (\(\beta = .08, p > .05, f^2 = .01\)) and WTC to TB (\(\beta = .11, p < .001, f^2 = .01\)). However, these same pathways for this route in the senior L2 teacher model were significant: ACI\textsubscript{ts} to WTC (\(\beta = .23, p < .001, f^2 = .05\)) and WTC to TB (\(\beta = .33, p < .001, f^2 = .12\)), with significant mediating effects found for WTC between ACI\textsubscript{ts} to TB (\(\beta = .23 \times .33 = .08, p < .01\)). Second, senior L2 teachers also became more advantageous in another causal route than the junior L2 teachers: the route from ACI\textsubscript{ss} to TB via IWTC. As shown in Table 5, the coefficient of the path from ACI\textsubscript{ss} to IWTC in the senior L2 teacher model (\(\beta = .28, p < .01, f^2 = .09\)) was larger than that in the junior L2 teacher model (\(\beta = .18, p < .001, f^2 = .03\)). Although the coefficients of the path from IWTC to TB in the two models were quite similar and statistically significant (.45 for the senior L2 teacher model and .47 for the junior L2 teacher model), as reported in Table 6, the mediating effects of IWTC in this causal route were more pronounced in the senior teacher model (\(\beta = .28 \times .45 = .13, p < .001\)) than in the junior teacher model (\(\beta = .18 \times .47 = .08, p < .001\)).

Furthermore, notwithstanding the two insignificant paths identified in the junior L2 teacher model, comparatively speaking, the junior L2 teachers would outperform the senior L2 teachers on a number of causal routes regarding willingness to implement interactional practices. Specifically, as shown in Table 6, the junior L2 teacher model has larger coefficients than does the senior L2 teacher model on the following paths. First, the coefficient of the path from ACI\textsubscript{ss} to WTC in the junior teacher model (\(\beta = .28\), \(p < .01, f^2 = .09\)) was larger than that in the senior L2 teacher model (\(\beta = .18, p < .001, f^2 = .03\)). Although the coefficients of the path from IWTC to TB in the two models were quite similar and statistically significant (.45 for the senior L2 teacher model and .47 for the junior L2 teacher model), as reported in Table 6, the mediating effects of IWTC in this causal route were more pronounced in the senior teacher model (\(\beta = .28 \times .45 = .13, p < .001\)) than in the junior teacher model (\(\beta = .18 \times .47 = .08, p < .001\)).
Table 5. Comparisons of Standardized Path Coefficients and Effect Sizes of Senior and Junior Teacher Models.

| Paths            | Estimates          | ES ($f^2 = R^2/1−R^2$) |
|------------------|--------------------|-------------------------|
|                  | Senior/Junior     |                         |
| $ACI_{ts} \rightarrow WTC$ | .23/.08           | .05/.01                 |
| $ACI_{ss} \rightarrow WTC$ | .23/.30           | .05/.10                 |
| $ACI_{ts} \rightarrow IWTC$ | .47/.55           | .28/.43                 |
| $ACI_{ss} \rightarrow IWTC$ | .28/.18           | .09/.03                 |
| $WTC \rightarrow IWTC$ | .16/.24           | .03/.06                 |
| $WTC \rightarrow TB$ | .33/.11           | .12/.01                 |
| $IWTC \rightarrow TB$ | .45/.47           | .25/.28                 |

Note. ACI = attitude toward classroom interaction; WTC = willingness to communicate; IWTC = instructional WTC; TB = teaching behavior.

Figure 4. The outcome of the junior teacher model.
Note. ACI = attitude toward classroom interaction; WTC = willingness to communicate; IWTC = instructional WTC; TB = teaching behavior.

Table 6. Comparisons of Direct and Mediating Effects of the Senior and Junior Teacher Models.

| Predicted variable | Predictor variable | Direct effect | Mediating effect |
|--------------------|--------------------|---------------|-----------------|
|                    |                    | Senior/Junior | Senior/Junior   |
| $WTC$              | $ACI_{ts}$         | .23/.08$^*$   |                 |
| $WTC$              | $ACI_{ss}$         | .23/.30       |                 |
| $IWTC$             | $ACI_{ts}$         | .47/.55       | .04/.02$^*$     |
| $IWTC$             | $ACI_{ss}$         | .28/.18       | .04/.07         |
|                    | $WTC$              |               | .16/.24         |
|                    | $ACI_{ts}$         | .08/.00      | .07/03$^*$      |
|                    | $ACI_{ss}$         | .13/.08       |                 |
|                    | $ACI_{ts}$         | .08/03$^*$    |                 |
|                    | $ACI_{ss}$         | .08/03$^*$    |                 |
| $WTC$              | $IWTC$             | .33/.11$^*$   | .07/11         |
| $IWTC$             |                    | .45/.47       |                 |

Note. ACI = attitude toward classroom interaction; WTC = willingness to communicate; IWTC = instructional WTC; TB = teaching behavior.
the senior teacher model ($\beta = .47, p < .001, f^2 = .28$).

Furthermore, regarding the path from WTC to IWTC, the coefficient in junior teacher model ($\beta = .24, p < .001, f^2 = .06$) was likewise greater than the one in the senior teacher model ($\beta = .16, p < .001, f^2 = .03$). Finally, despite the marginal difference, the coefficient of the path from IWTC to TB in the junior teacher model ($\beta = .47, p < .001, f^2 = .28$) remains slightly larger than the one in the senior teacher model ($\beta = .45, p < .001, f^2 = .25$).

In addition, with regard to the mediating effects, as shown in Table 6, WTC and IWTC created larger mediating effects in the junior teacher model on the causal routes for the following paths: ACI to IWTC via WTC ($\beta = .30 \times .24 = .07, p < .001$); ACI to TB via IWTC ($\beta = .55 \times .47 = .26, p < .001$); and WTC to TB via IWTC ($\beta = .24 \times .47 = .11, p < .001$) than in the senior teacher model: ACI to IWTC via WTC ($\beta = .23 \times .16 = .04, p < .001$); ACI to TB via IWTC ($\beta = .47 \times .45 = .21, p < .001$); and WTC to TB via IWTC ($\beta = .16 \times .45 = .07, p < .001$). Concerning the most complex mediating combinations in the two models, the results showed a contrasting picture: the mediation was insignificant (.00n.s) for the junior L2 teacher model but significant (.08) for the senior teacher model for the route ACI → WTC → IWTC → TB. However, the two models showed a significant mediating combination on the route ACI → WTC → IWTC → TB: .02 for the senior teacher model and .03 for the junior teacher model.

Finally, the route from ACI to TB via IWTC was the most robust channel through which L2 classroom interactional practice could be realized easily for both models. The empirical robustness of this route remained relatively stable and constant regardless of L2 teaching experience. This robustness was evident given that the mediating effects of this route were the largest effects throughout the whole model in the three cohorts: the combined model ($\beta = .52 \times .44 = .23, p < .001$), the senior L2 teacher model ($\beta = .47 \times .45 = .21, p < .001$), and the junior L2 teacher model ($\beta = .55 \times .47 = .26, p < .001$). By comparison, however, the junior L2 teachers appeared to be more capable of enacting this instructional route than were the senior L2 teachers.

In summary, the model comparison supported Hypothesis 4. That is, although junior teachers might have not yet developed the expertise needed for the route from ACI to TB via WTC, they had developed to a greater extent than the senior teachers on the four significant paths.

**Discussion**

**Effects of Teachers’ L2 ACI on WTC and IWTC**

In this study, attitudes toward L2 interaction were found to contribute to teachers’ communication intention in general (WTC) and instructional willingness to integrate L2 interaction into their teaching (IWTC).

The SEM results show that attitudes toward L2 interaction contributed to the teachers’ own WTC. That is, the teachers’ attitudes toward both teacher–learner interaction in the L2 (ACI) and learner–learner interaction in the L2 (ACI) had significant explanatory power over the extent of the teachers’ willingness to use the L2 to make a presentation to a group of people, to engage in a discussion with a small group of colleagues, to chat with colleagues, and to talk with a small group of strangers. This result echoes empirical findings, showing that learners’ attitudes toward tasks performed in communicative contexts and involving L2 interaction have an influence on their L2 WTC (e.g., Dömyéi & Kormos, 2000; Fushino, 2010; Yu, 2009). The teachers in this study who expressed a favorable attitude toward L2 interaction for students’ L2 learning may also have similar attitudes toward their own L2 learning such that their ACI is predictive of their L2 WTC.

The SEM results also show that both ACI and ACI are significantly predictive of teachers’ instructional willingness to integrate L2 interaction into their teaching (IWTC). The extent to which they are willing to do this is related to their willingness to use the L2 to interact with students, to ask them questions, and to mediate so that each student takes a turn practicing appropriate English, thereby creating opportunities for L2 interaction to take place. In particular, the teachers’ attitudes toward L2 teacher–learner interaction (ACI) had a much stronger predictive power for IWTC than did the teachers’ attitudes toward L2 learner–learner interaction (ACI). This result suggests that teachers’ instructional willingness is more easily activated and enacted on the basis of the attitudinal aspects of teacher–learner interactions than on the basis of learner–learner interactions.

In summary, the study results suggest that L2 teachers’ attitudes toward L2 interactions are at the foundation of teachers’ efforts to engage students in L2 interactions in the classroom such that teacher training should include an emphasis on educating teachers about the impact of such interactions and specific ways of achieving it. L2 interactions pertain to activities such as question and answer, corrective feedback, meaning negotiation, and teacher–learner and learner–learner interactions (Chaudron, 1988; Ellis, 2012; Ellis & Shintani, 2014; Long, 1996; Long & Sato, 1983; Swain, 2000). In sum, classroom interaction in general heightens L2 use, provides an extensive learning space where learners test hypotheses relating to their newly acquired skills or knowledge, and advances the learning goal of automaticity (Long, 1983, 1996; Swain, 1985, 2000). Thus, L2 interaction should be promoted in L2 learning and emphasized in teacher training of various kinds.

**Effects of Teachers’ L2 WTC and IWTC on TB**

Furthermore, teachers’ L2 WTC and IWTC were found to significantly contribute to TB. Specifically, the results of the study show that teachers’ WTC in the L2 with their colleagues...
and strangers in various contexts (the general form of WTC) has significant predictive power for both L2 IWTC (the specific form of WTC) and L2 TB. In previous research, WTC has been found to contribute to specific L2 WTC behaviors (Dörnyei & Kormos, 2000; Hashimoto, 2002), which may explain WTC’s contribution to teachers’ instructional willingness and TB pertaining to incorporating L2 interaction into their teaching in the present study. In this connection, it is reasonable to consider a language teacher’s L2 WTC as a prerequisite for L2 IWTC and for an interactive classroom that maximizes students’ opportunities to use the L2.

Similarly, the relationship between L2 WTC and L2 WTC behavior as evidenced in previous research (Dörnyei & Kormos, 2000; Hashimoto, 2002) also helps explain the results of the present study relating to IWTC’s strong predictive power for L2 TB in addition to L2 WTC. However, by comparison, the present study shows that a more specific form of WTC operationalized as IWTC carries more weight than the general form of WTC in promoting the use of L2 TB. As the items indicative of IWTC are operationalized by referring to the specific instructional interactional techniques as empirically confirmed to be effective (Zarrinabadi et al., 2014), L2 teachers’ willingness to deploy these interactional techniques in the classroom becomes more critical than their general WTC in ordinary social scenarios: A person’s intended behaviors reasonably mirror the same behaviors of the person; as such, an L2 teacher’s willingness to teach communicatively explains sensibly more of his or her behaviors of the same type (i.e., teaching interactively) than simply WTC in an L2. The research finding points to the need for both researchers and practitioners to attend to the salience of more concrete WTC pedagogical practices. That is, teachers’ IWTC should be raised and its sources to be nurtured, specifically their ACI. Such attitude depends on teacher education with an added emphasis on establishing teachers’ beliefs about the importance of L2 interaction and enhancing their ability to incorporate this element into their teaching as is discussed above. With a reference to the prior empirical studies, it should be particularly pointed out that specific instructional techniques that encourage optimal interaction using an L2, such as explicit corrective feedback, wait time, delayed error correction, motivational strategies, and consideration of group size (Cao & Philp, 2006; MacIntyre et al., 2011; Tavakoli & Zarrinabadi, 2018; Zarrinabadi, 2014; Zarrinabadi et al., 2014), deserve close attention as their instructional values have been empirically upheld, and, hence, their inclusion in teaching is ideally proper in contributing to classroom ecology.

**Function of L2 WTC and IWTC in Mediating the Link Between Attitudes and TB**

The IWTC-mediated SEM model further shows that both the general form of WTC and the instructional form of WTC significantly mediate the causal relationships between attitudes toward L2 interaction and TB. The ACI-related variables, both the teacher–learner and learner–learner types, have indirect effects on TB through the mediation of both L2 WTC and IWTC. In particular, as reported, the mediating effects of WTC and IWTC were much greater and more salient on the causal route from ACI to TB than on that from ACI to TB. This research finding, again, underscores the attitudinal aspects in relation to the interaction between significant others (i.e., L2 teachers) and learners in connecting to different forms of WTC and in turn to the use of TB. Likewise, concerning the possible routes from ACI to TB and from ACI to TB, the causal path from ACI to TB via IWTC is the most efficient and robust in achieving an attitude–behavior connection between the L2 teachers’ link. This research finding suggests the need to educate L2 teachers such that they appreciate the value of cultivating a positive attitude toward teacher–learner classroom interactions. In fact, teacher–learner interactions are highlighted in relevant literature on teacher talk in which these kinds of interactions in the L2 interaction are shown to be an important source of input for students (Ellis, 2012) and on the mediation provided in the interaction process such as scaffolding, corrective feedback, and elaboration facilitates language development (Ellis & Shintani, 2014; Lantolf & Thorn, 2006; Lightbown & Spada, 1990; Long & Sato, 1983; Vygotsky, 1987). The research finding also suggests the importance of assisting L2 teachers to recognize the value of IWTC so that they can connect it explicitly to their TB and thereby maximize their students’ learning outcomes.

Overall, the present study’s findings relating to L2 ACI’s associations with IWTC and TB can be reasonably accounted for in reference to theories according to which attitudes subsume beliefs, which are, in turn, closely related to pedagogical decisions (Borg, 2009, 2011) as well as to intention/behaviors (Pickens, 2005). In the present study, the teachers who believed in the importance of L2 classroom interaction for L2 learning and favored its use were very likely to express the intention to use it in the classroom and to realize this intention, which has been shown to be important in L2 learning (Long, 1983, 1996; Swain, 1985, 2000; Vygotsky, 1987) and is widely promoted in L2 teaching (e.g., Ellis & Shintani, 2014; Y. Kim & Taguchi, 2015; Wang & Castro, 2010).

**Differential model relationships between junior and senior L2 teachers.** To cross-validate the outcome model, a multi-group analysis was conducted to examine the extent to which the outcome model is valid across the two sub-samples of the study: senior L2 teachers and junior L2 teachers. As the results of the model comparisons reveal, in comparison with junior L2 teachers, senior L2 teachers are more capable of crystallizing their generalized form of WTC as mediator between ACI and TB, but less likely for the specific form of IWTC. This suggests that junior L2 teachers may have difficulty in taking advantage of the causal route from ACI to TB via WTC. This may be because junior teachers may have
not yet developed the expertise needed to operationalize WTC by creating an attitude–behavior link. As teacher–learner interactions are typically considered an essential source of instructional input (Ellis, 2012), being taught by a teacher who is not confident of setting up successful interactions of this kind means that learners may not receive sufficient oral input from their teachers and thus may not receive sufficient or appropriate scaffolding for them to develop communicative competence. Arguably, given that the development of communicative competence is at the core of L2 learners’ mastery of the subject matter, that is, English, learners taught by junior L2 teachers are likely to be in a more disadvantageous position in oral communication if those teachers have an unfavorable attitude toward teacher–learner interaction in the classroom. In this regard, junior L2 teachers may need extensive professional training to learn how to initiate, modify, and maintain their talk with learners. However, this does not necessarily mean that junior L2 teachers are less capable than or inferior to senior L2 teachers in instigating teacher–learner interaction in the classroom. Instead, this result suggests that compared with senior L2 teachers, junior L2 teachers, in fact, rely more on their IWTC to bridge the gap between the two attitude-related factors and their TB. This is evidenced by the finding that up to four direct effects and three mediating effects in the junior L2 teacher model are greater than those in the senior L2 teacher model. This research finding clearly suggests that despite having less teaching experience than the senior L2 teachers do, junior L2 teachers can still appreciate the value of L2 teacher–learner and learner–learner interactions and have an explicitly positive attitude toward implementing practices designed to foster these. Furthermore, in light of the results regarding L2 teaching experience from the multi-group analysis, a consistent picture of the model comparison emerges: the effects of the causal route from ACI_L to TB via IWTC are consistently high regardless of teaching experience. This finding highlights the relative importance of ACI_L and ACI_L and lends greater support to the role of ACI_L in nurturing IWTC so that teachers can engage in related TB in an effective way. Thus, as suggested, teacher training programs should include an emphasis on teachers’ attitudes toward using the L2 with students. To summarize, without achieving a high level of L2 ACI_L and ACI_L, and also L2 WTC and L2 IWTC, efforts to promote and implement L2 interaction are likely to be fruitless.

Conclusion

In summary, the present study confirms an IWTC-mediated model and sources of teachers’ interactional instruction. The findings represent an advance for the field given that this is the first study in which such a model is proposed. In the present study, teachers’ attitudes toward classroom interaction are shown to be a major source of their interactional instruction in terms of learner–learner interactions and even more so in terms of teacher–learner interactions. Furthermore, the mediating roles of teachers’ L2 WTC and instructional intention (IWTC) in an interactive classroom are established. In addition, the differential models of teaching experience highlight major differences relating to how each classroom interaction variable interplays with the others. If L2 teachers are to integrate elements into their classroom practice as promoted both in SLA theories and at the policy level, they must be educated such that their supportive attitudes toward beliefs regarding L2 interaction are encouraged and conceptions in this regard discouraged. As an additional and essential related aspect of their education, teachers need instruction in highly effective ways to use the L2 in the classroom context. As the existing research shows, the efficacy of a number of specific varieties of L2 interactions in the context of classroom instruction has been empirically corroborated, including explicit corrective feedback (Tavakoli & Zarrinabadi, 2018), wait time (Zarrinabadi, 2014), delayed error correction, and motivational strategies (Zarrinabadi et al., 2014), as well as group interaction (Dobao, 2014; Ellis, 2012; Long & Porter, 1985). Both pre-service and in-service teachers, whether in the EFL or ESL setting, should receive sufficient training so that they can fully master the knowledge and skills required to implement these teaching techniques with a high level of both competence and confidence.

Overall, it is reasonable to anticipate that with the systematic use of these techniques, learners’ WTC in English can be greatly supported and their English-language competence developed to a significant extent. Furthermore, the results suggest that L2 teachers require not only WTC but also IWTC in order to be effective with the techniques described. In fact, it is IWTC that matters more in raising L2 teachers’ awareness of the most highly effective instructional teaching techniques. This is particularly important for junior L2 teachers, and by extension, even more important for pre-service L2 teachers as they work toward gaining their teaching qualifications and working independently in the classroom. It is expected that L2 teacher education may benefit from the research findings of the study, and thus L2 learners’ WTC can be not only duly enhanced through the elevation of their individual motives but also timely directed by their teachers’ L2 WTC and IWTC through the mediation of savoir-faire with effective TB.

Finally, this study is limited inasmuch as it relies on the results from self-reported survey scales to determine the extent of the variables pertaining to teachers’ communication in the classroom. Therefore, in future research, it would be beneficial to investigate actual teaching practices in multiple ways such as classroom observation data, retrospective interviews, and video-taped interactions that can be subjected to conversation analysis. Also limited is the study with respect to its participants being exclusively junior and senior high school teachers. It is also recommended that future research include an investigation into aspects of
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ORCID iD
Wen-Ta Tseng https://orcid.org/0000-0001-5673-5944

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