

Applying the Theories of Planned Behavior and Self-Determination to Predict Willingness to Communicate

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Received: 5 Jan, 2025

Revised: 3 Mar, 2025

Accepted: 16 Jun, 2025

Abstract

The importance of effective verbal communication in human society cannot be overstated; it is not just a basic human need but is also fundamental to an individual's agency and identity. Accordingly, the Theory of Planned Behavior (TPB) and Self-Determination Theory (SDT) were applied to identify factors influencing willingness to communicate (WTC) among English as a foreign language (EFL) learners at a secondary school in Northeastern Thailand. A mixed-methods approach was employed with 113 participants from both lower and upper secondary levels. Likert scale questionnaires were administered to quantitatively assess the effects of the constructs from TPB and SDT on WTC, while focus group discussions provided qualitative depth. Statistical analysis revealed that subjective norms and perceived behavioral control significantly predicted WTC, with competence also showing a strong positive correlation. Conversely, extrinsic motivation was negatively associated with WTC, suggesting that reliance on external rewards may reduce communication willingness. This model explained 75% of the variance in WTC. The quantitative results were supported by qualitative findings, which underscored the cultural and motivational nuances shaping students' communication behaviors, adding depth to the data. The study highlights the importance of subjective experiences, social interactions, and perceived competence in enhancing second language communication. Therefore, the integration of the psychological, social, and volitional support systems can positively impact oral communication outcomes in L2 education.

Keywords: Theory of Planned Behavior, Self-Determination Theory, EFL, Willingness to Communicate

Introduction

Human growth is not merely sustained by the fundamental necessities of oxygen and water but enriched and personalized by the ability to communicate. This vital human need is a cornerstone of societal interaction, cultural expression, and personal

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development. The present study examines English as a foreign language (EFL) learning among secondary students in Northeastern Thailand, focusing specifically on oral communication in EFL contexts. It explores the notion that second language acquisition is facilitated by innate mechanisms and influenced by cognitive, motivational, and affective variables (Krashen, 1982).

Building on this, the study addresses particular challenges presented by cultural norms and teaching methodologies in Thai EFL settings, significantly affecting students' willingness to communicate (WTC) in a second language (L2). These challenges are compounded by cultural barriers, anxiety-related factors, or negative attitudes specifically impacting Thai students' WTC in EFL (Akkakoson, 2016). To examine these dynamics further, the study integrates the Theory of Planned Behavior (TPB) and Self-Determination Theory (SDT) (Ajzen, 1985; Deci & Ryan, 1980), highlighting the multifaceted nature of language learning and the varied influences that affect it. Although TPB has previously been utilized in language learning and educational studies (Girardelli & Patel, 2016; Khathayut et al., 2022), the utility of both TPB and SDT remains largely unexplored in this context.

The research took place in Khon Kaen, which serves as a major educational center in Northeastern Thailand, hosting Khon Kaen University (KKU International College, 2025). The city demonstrates greater multicultural characteristics than other Northeastern provinces; it holds UNESCO Learning City status, and continues Smart City Development (Tupmongkol, 2020; UNESCO, 2024).

The study's objectives are twofold: First, to determine the predictive strength of TPB and SDT constructs on WTC among EFL students, addressing the research question: Which constructs from TPB and SDT most significantly predict communication willingness in English among EFL students at a secondary school in Northeastern Thailand? Second, the study explores how these constructs influence students' communication behaviors in EFL classrooms, posing the second research question: How do the core constructs of the TPB and SDT influence students' communication behaviors in EFL classrooms in Northeastern Thailand? Ultimately, the study identifies the most significant predictors of WTC from these theoretical frameworks and assesses their impact on the behavioral and motivational factors influencing students.

Specifically, the study focuses on 113 EFL secondary students at a bilingual school in Khon Kaen. It explores how cultural and educational settings influence these students' WTC in their second language. Employing a mixed-methods approach, the research utilized Likert-scale questionnaires and focus group discussions to gain a comprehensive understanding of the problem.

Key terms defined include constructs from TPB (attitudes, subjective norms, perceived behavioral control [PBC], intention to behave) and SDT (autonomy, competence, relatedness, intrinsic and extrinsic motivational factors). WTC represents

the dependent variable, referring to an individual's readiness to engage in communication (MacIntyre, 1994).

The significance of this research lies in addressing existing gaps in the literature on WTC within Thai EFL classrooms, applying TPB and SDT to elucidate psychological and motivational factors influencing oral communicative behavior. Offering new insights into the dynamics of L2 communication, the study aims to enhance the academic field's understanding of students' specific needs and behaviors. Additionally, the findings may inform schools regarding the phenomenon of 'silence' prevalent among EFL learners in Northeastern Thailand (Ambele & Boonsuk, 2018), exploring silence's role as a communicative tool to better understand students who might benefit from alternative teaching methodologies.

Integrating TPB and SDT, the study explores why students may choose to remain uncommunicative in certain settings, highlighting implications for their L2 speaking. These insights may be useful for developing targeted strategies to improve communication outcomes in EFL classrooms. Furthermore, this approach may contribute to establishing a new framework for better predicting students' willingness to communicate, providing teachers with greater insights into students' psychological characteristics.

Literature Review

Theoretical Frameworks

In the context of this research, WTC is understood as the readiness to engage in spoken English within the ESL classroom environment. The concept of WTC in ESL classrooms has been widely recognized as a factor in language learning (MacIntyre et al., 1998). Numerous factors contribute to WTC, including learner identity, motivation, anxiety, and vocabulary size, each playing a role in shaping communication behavior in the classroom (Öz & Bursalı, 2018; Şen & Öz, 2021; Sharkawi, 2009).

One prominent factor affecting WTC is learner identity. Research suggests that shifts in language identity caused by anxiety can lead to a reduction in WTC (Sharkawi, 2009), a finding consistent with earlier studies showing the negative impact of anxiety on communication willingness (MacIntyre & Gardner, 1994). Moreover, the concept of the ideal L2 self, which involves the learner's vision of themselves as proficient language users, also plays an important role in enhancing WTC, as learners with a clear image of their future language abilities tend to communicate more willingly (Öz & Bursalı, 2018).

In addition to identity, vocabulary size is another critical factor. Studies have shown that learners with a larger vocabulary are generally more confident, which positively influences their WTC (Şen & Öz, 2021). This is consistent with earlier research, which indicated that a greater vocabulary size increases confidence and communication readiness (Peng & Woodrow, 2010).

Equally important is the role of self-efficacy in fostering WTC. Students who believe in their ability to communicate effectively in English are more likely to engage in classroom discussions and activities (Bandura, 1997; Pajares, 2007). This positive self-perception not only boosts their willingness to participate but also promotes a more active role in the language-learning process.

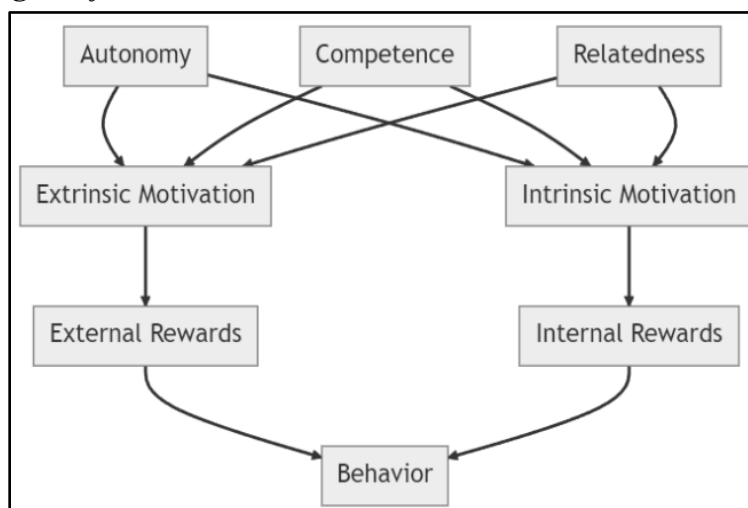
Furthermore, the classroom environment itself significantly influences students' WTC. A supportive and inclusive classroom fosters a higher willingness to communicate, while a competitive or hostile environment can inhibit it (Ladd et al., 1997).

In summary, WTC is a complex construct, known to be influenced by a variety of interconnected factors. Better understanding these factors through the lenses of the TPB and SDT will provide a strong theoretical foundation for analyzing the findings of this study.

Self-Determination Theory

Figure 1 illustrates key elements of the SDT, as proposed by Deci and Ryan (1985). It suggests that autonomy, competence, and relatedness influence both intrinsic and extrinsic motivation, which may, in turn, affect behavior.

Figure 1
Conceptual Diagram for the SDT



Note: Based on Deci and Ryan (1985).

SDT is an established psychological framework developed by Deci and Ryan (1985), focusing on human motivation. SDT posits that humans have three basic psychological needs, autonomy, competence, and relatedness, that, when fulfilled, lead to intrinsic motivation. In educational settings, including language learning, intrinsic motivation has been found to be a critical driver of engagement and success (Amoura et al., 2015; Deci & Ryan, 2000). Previous research has shown that learners with a high

degree of intrinsic motivation are more likely to engage in communicative practices in language learning contexts (Ryan & Deci, 2017).

Autonomy, a construct in SDT, refers to the individual's sense of control over their actions. In language learning, autonomy allows students to take responsibility for their learning by making independent choices regarding learning strategies, resources, and language practice. Little (2003) emphasized that autonomy is one of the key determinants of success in second language acquisition. Scholars have provided various definitions of autonomy in the context of education. Holec (1981, p. 3) defines it as "the ability to take charge of one's own learning," while Benson (2001, p. 47) highlights it as "the capacity to take control over one's own learning." Similarly, Little (1999) views autonomy as a capacity for detachment, critical reflection, decision-making, and independent action. The relationship between autonomy and WTC is significant, as learners who feel empowered to make decisions about their learning are often more willing to communicate in the target language (Yashima, 2002).

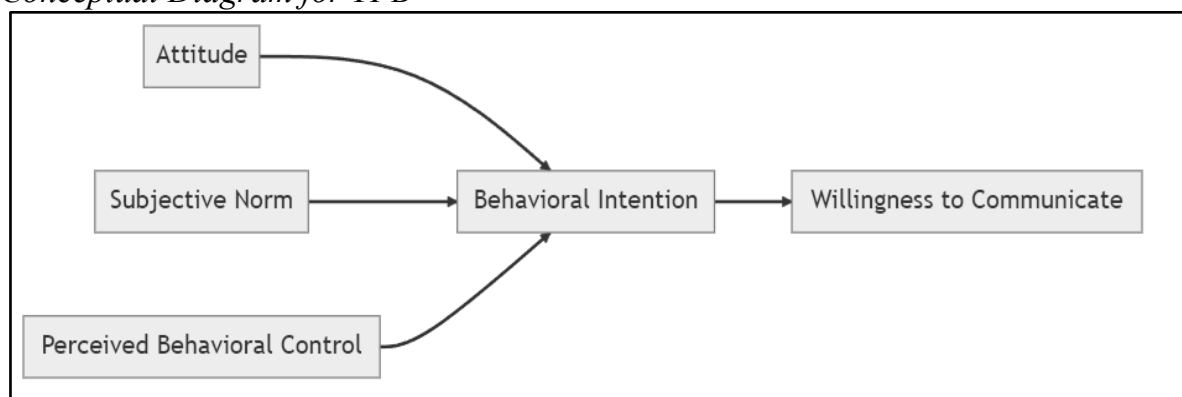
Similarly, competence, as defined by SDT, refers to the individual's belief in their ability to succeed in a given task. In the context of EFL, learners who perceive themselves as competent in their language abilities are more likely to engage in communication (Guay et al., 2008). A key element in fostering competence is the creation of learning environments that provide appropriate challenges, as well as feedback that reinforces the learner's growing abilities. MacIntyre et al. (2001) found that learners' competence is directly linked to their willingness to engage in classroom communication, especially when they are in a low-anxiety environment that allows for mistakes and growth.

Furthermore, relatedness, defined as the need to feel connected to others, is crucial in educational settings. In EFL classrooms, fostering relatedness through group work and communicative activities encourages collaboration. Students who feel supported by their peers and teachers are more likely to engage in speaking activities, enhancing their sense of belonging and security, which is positively associated with academic adjustment and achievement (Vansteenkiste et al., 2006). Relatedness also reduces the anxiety associated with speaking in a foreign language, a significant barrier to WTC (Ambele & Boonsuk, 2018). This sense of relatedness is particularly important in collectivist cultures, such as Thailand, where the social context of learning plays a key role in shaping learners' behaviors (Yashima, 2002). To further explore these influences, TPB provides a useful framework.

Theory of Planned Behavior

Figure 2 illustrates TPB, highlighting how attitude, subjective norms, and PBC may relate to behavioral intention, which, in turn, impacts WTC.

Figure 2
Conceptual Diagram for TPB



Note: Based on Ajzen (1991).

TPB, proposed by Ajzen (1991), explains human behavior through three primary constructs: attitudes, subjective norms, and PBC. TPB has been moderately applied in educational research to examine learners' intentions and actions. In the context of EFL, it offers a useful framework for understanding learners' intentions to communicate in the target language: intentions, shaped by their attitudes toward English, perceived social pressures, and confidence in their ability to succeed (Peng & Woodrow, 2010).

The first construct of the theory is attitudes. This refers to an individual's positive or negative evaluation of a specific behavior, in this case, communicating in English. Gardner and Lambert (1972) found that learners who view English communication positively, perhaps due to its perceived social and economic benefits, are more likely to develop the intention to engage in communication. On the other hand, learners who hold negative attitudes, either due to fear of making mistakes or cultural resistance to English, may avoid speaking the language (Shaikholeslami & Khayyer, 2006). MacIntyre and Gardner (1994) suggested that attitudes toward communication are a strong predictor of WTC in language learning contexts.

Having considered the importance of attitudes, it is important to examine the second construct, subjective norms, which encompasses the social influences and pressures learners perceive regarding a specific behavior. Zheng (2008) noted that perceived supportive expectations regarding communication in the target language can increase learners' willingness to communicate. Research indicates that subjective norms are often shaped by the expectations of peers, teachers, and societal attitudes toward English proficiency (Yashima, 2002). In Thailand, where conformity to group norms is highly valued, students might feel pressured to remain silent in class if they believe their peers or teachers expect this (Peng & Woodrow, 2010). On the other hand, learners who perceive support from their social group for English communication are more inclined to participate (Al-Tamimi & Shuib, 2010). These social pressures can either facilitate or hinder communication, depending on the cultural context. Understanding this dynamic is critical for educators and policymakers to develop teaching strategies and learning environments that promote positive subjective norms and enhance learners'

WTC. Recognizing these challenges, Bochner et al. (1977) highlighted the significant role of subjective norms in second language acquisition.

Finally, PBC refers to an individual's belief in their ability to perform a behavior, and it is closely related to the concept of self-efficacy (Bandura, 1977). In language learning, PBC reflects the learner's confidence in their ability to communicate in English. Learners with high PBC are more likely to engage in communicative tasks because they perceive that they possess the skills necessary to succeed (MacIntyre et al., 2001). In contrast, Bandura's (1977) self-efficacy theory emphasizes that learners who believe in their ability to succeed are more likely to persist in difficult tasks.

Motivation and Willingness to Communicate

Understanding the nuanced interplay between intrinsic and extrinsic motivation is essential in language education. Intrinsic motivation stems from a genuine interest and enjoyment in the learning process, leading to sustained engagement and a higher willingness to communicate, as noted by Noels et al. (2000) and Ryan and Deci (2000, 2017). Conversely, extrinsic motivation is driven by external rewards such as grades or social approval. Although this can trigger initial communication attempts, Shaikholeslami and Khayyer (2006) pointed out that without the support of intrinsic motivation, extrinsic motivators may not maintain long-term engagement and willingness to communicate. Additionally, the impact of motivation on engagement is further moderated by factors such as language anxiety and perceived communicative competence, as observed by MacIntyre et al. (2001). Therefore, a balanced approach that fosters both types of motivation could be more effective in promoting enduring communicative participation in language learning contexts.

In addition to motivation, cultural influences play a significant role in shaping learners' WTC. In many contexts, cultural norms can either promote or inhibit communication. For instance, in Thailand's traditionally teacher-centered education system, students often assume passive roles, limiting opportunities for oral communication (Chan & Ladd, 2001). This dynamic, often referred to as a culture of silence, is notable in many Asian classrooms, where students may hesitate to speak due to fear of negative evaluation or social disapproval (Ambele & Boonsuk, 2018). Such cultural barriers to communication should be addressed by educators to promote WTC in the classroom.

To overcome these obstacles, research suggests that creating more student-centered learning environments can foster autonomy and encourage active participation, which is essential for improving WTC (Yashima, 2002). By promoting environments where learners feel safe to express themselves, educators can enhance both motivation and WTC, ensuring that students are more actively engaged in the language learning process. Having reviewed how the utility of SDT and TPB may predict WTC, the study now moves to the research methodology.

Methodology

The current study employed a mixed-methods design to explore how constructs from the TPB and SDT to predict WTC among 113 secondary students in a bilingual school in Northeastern Thailand. As part of the school's English program, all students are required to take an online CAIE CEFR-aligned Reading and Listening Test. The participants in this study were drawn from a range of proficiency levels, specifically between the Common European Framework of Reference (CEFR) levels A2 and B2.

Research Design

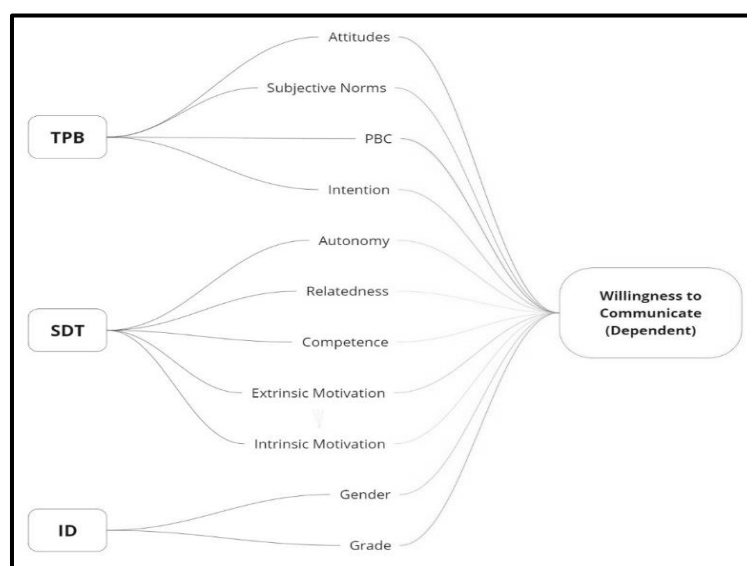
A mixed-methods approach was adopted. Likert-scale questionnaires, presented in both Thai and English, were employed to assess the predictive strength of the constructs within the theories of students' WTC, with multiple regression analysis used to identify significant patterns and relationships in their responses. Additionally, focus group discussions were utilized to gather qualitative insights into students' perceptions, experiences, and reactions to speaking English inside and outside of the classroom, with all discussions conducted in English. This combination of methods facilitated a comprehensive analysis, revealing not only broad trends but also the nuanced factors that influence communication willingness among a diverse student population from local and mixed-race backgrounds.

Theoretical Framework of the Study Design

The following conceptual framework, shown in Figure 3, illustrates how TPB and SDT components interact as independent predictors to enhance WTC among L2 learners.

Figure 3

Theoretical framework



Source: Based on constructs from Ajzen (1991) and Deci and Ryan (1985).

Behavioral and Motivational Components

The study first explored the attitude component of TPB, assessing students' beliefs regarding the outcomes of communicating in English and their evaluations of these outcomes. Next, subjective norms were examined, focusing on the social pressure from peers, teachers, and the broader community that influenced students' WTC. Lastly, PBC was reviewed, analyzing students' perceived ability to communicate in English and how this impacted their speaking behaviors.

From SDT, the study addressed autonomy, considering how students' sense of choice and freedom in the learning environment affected their WTC. Competence was then examined, focusing on their confidence in their English communication skills and how feedback influenced this. Finally, relatedness was explored, referring to the sense of connection students felt with others and how relationships shaped their motivation to communicate. This combination of TPB and SDT offered a comprehensive view of the behavioral, motivational, and volitional factors that influence students' WTC in the classroom.

Population and Sampling

The study was conducted at a private bilingual school in Khon Kaen Province, Northeastern Thailand. A total of 113 students, selected through convenience sampling, participated. All participants reside in Khon Kaen and regularly interact with at least one proficient English speaker daily, creating a rich linguistic environment. The school was selected due to the researcher's six-year experience in the region and its representativeness of other private schools in the province.

Participants were distributed across grade levels as follows: 20 from Grade 7; 23 from Grade 8; 21 from Grade 9; 19 from Grade 10; and 15 each from Grades 11 and 12. Their English proficiency, assessed by CEFR, ranged from A2 to B2, indicating basic to intermediate language skills.

Figure 4

Common European Framework of Reference

Level			General description	Cambridge English Exam
Proficient user	C2	Mastery	Highly proficient – can use English very fluently, precisely and sensitively in most contexts	Cambridge English: Proficiency
	C1	Effective Proficiency	Able to use English fluently and flexibly in a wide range of contexts	Cambridge English: Advanced
Independent user	B2	Vantage	Can use English effectively, with some fluency, in a range of contexts	Cambridge English: First/First for Schools
	B1	Threshold	Can communicate essential points and ideas in familiar contexts	Cambridge English: Preliminary/Preliminary for Schools
Basic user	A2	Waystage	Can communicate in English within a limited range of contexts	Cambridge English: Key/Key for Schools Cambridge English: Flyers
	A1	Breakthrough	Can communicate in basic English with help from the listener	Cambridge English: Movers Cambridge English: Starters

Source: Adapted from Cambridge Assessment International Education, n.d.

These levels ensured that students could follow directions during the data collection process. English proficiency was measured using an online CEFR test from Cambridge Assessment International Education, administered at the start and midpoint of the academic year. This setting provided an ideal context for exploring the behavioral and motivational factors affecting students' WTC, offering valuable insights into English communication among students in Northeastern Thailand.

Instruments

A combination of quantitative and qualitative instruments was employed to gather data. The primary instrument used was a Likert-scale questionnaire, designed to gauge participants' intentions, beliefs, and motivations in relation to L2 English communication in the classroom. In addition to quantitative data collection, focus groups of seven students were organized for in-depth discussions. The focus groups served as a platform for students to express their thoughts and feelings in a more open and conversational manner.

Development of Likert Scale Questionnaires

The questionnaire was crafted to ensure clarity, relevance, and linguistic appropriateness, with items directly linked to the theoretical constructs. The questionnaire underwent a pilot testing phase to refine items based on participant feedback and expert reviews. The questionnaire was presented in both English and Thai.

Table 1

Example statements from the 76-item Questionnaire, Anchor Points (1-7) Varied According to Items

Construct	Description	Example of Items
TPB Attitudes	Assesses perceptions of the utility of speaking English in educational and developmental contexts.	– How beneficial do you think speaking English in class is for your learning? – How do you rate the benefit of actively speaking in English in class for your language development?
TPB Subjective Norms	Measures the influence of peers and teachers on the motivation to speak English.	– Seeing my classmates speak well makes me more willing to speak in English class. – Feedback from my teacher encourages me to speak more in English class.
TPB-PBC Perceived Behavioral Control	Queries about control over speaking English under various circumstances.	– I feel in control when speaking English in class, even when unexpected things happen in my life. – Family responsibilities make it challenging for me to speak in English during class.

TPB Intentions	Captures the intent to engage in specific English language usage behaviors in class.	- I plan to speak English a lot in English classes to connect with the teacher and students. - I am okay with finishing homework late at night if it means speaking better English during English class.
SDT Autonomy	Explores the sense of independence in decision-making regarding English language education.	- I feel free to make my own decisions regarding my English language learning. - I feel that my choices and preferences are considered in my English language class.
SDT Competence	Focuses on self-perceived ability to use English effectively across different scenarios.	- I feel confident in my ability to learn and use the English language effectively. - I feel skilled and capable when using the English language in different situations.
SDT Relatedness	Measures connection with peers and instructors within the learning environment.	- I feel connected and related to other learners in my English class. - I have meaningful relationships with people who speak English.
SDT Intrinsic Motivation	Assesses motivation due to personal satisfaction and enjoyment of learning English.	- I enjoy learning English for personal satisfaction. - Learning English is personally rewarding and fulfilling for me.
SDT Extrinsic Motivation	Examines motivations influenced by external factors such as career prospects or academic requirements.	- I am motivated to learn English because of the benefits it brings in my career or job prospects. - I learn English because it is a requirement for my academic or professional path.

Willingness to Communicate Questionnaire

This specifically developed tool assessed various dimensions of L2 communication willingness. The reliability and validity of the questionnaire were confirmed through pilot testing. Questions were presented in English and Thai.

Table 2

Willingness to Communicate Foreign Language Scale (dependent variable). Anchor Points Strongly Disagree to Strongly Agree 1-7

Part	Context	Example of Items
Part 1	Using English to Speak to Native English Speakers	- If I see native English speakers at the mall, I hope they might start a conversation with me. - When I am with my friends and we meet native English speakers, I will try to chat with them.

Part 2	Using English to Speak to People Outside of School	- I am willing to practice speaking English with my friends outside of our classes. - During school field trips, I will ask questions in English if it helps me learn.
Part 3	Using English to Speak to Non-Natives	- When with my parents and we meet non-native English speakers outside of school I hope they would talk to us in English. - When with my friends, if we encounter non-native English speakers, I will find a reason to start a conversation.

Source: Adapted from Baghaei, 2011.

Focus Group Discussions

Focus group discussions were employed to explore factors influencing students' WTC. From the initial sample of 113, seven students with midterm speaking grades between 1.5 and 4 were selected to represent a broad spectrum of proficiency levels. The group included four males and three females from both upper and lower secondary levels who volunteered for the 45-minute session conducted in the school library.

Discussions covered personal English learning journeys, peer interactions, teacher support, cultural impacts, emotional experiences, and perceptions of English proficiency. Sample discussion prompts included asking students to share experiences related to their willingness to communicate in English and how they perceive their English abilities.

Thematic analysis, following Braun and Clarke (2006), was used to analyze the data, ensuring a comprehensive understanding of the emergent themes. Detailed results and interpretations provide insights into factors influencing students' L2 English communication willingness.

Data Collection and Analysis

Informed consent was secured using action-based consent for the quantitative phase, where participation was anonymous. For the qualitative focus group, written consent was obtained from the seven students involved, with parental consent also secured. This approach ensured compliance with ethical research standards. The researcher also completed certified training in ethical research involving human participants, including minors, through the CITI Program (Social & Behavioral Research – Basic/Refresher) under Khon Kaen University in December 2023.

The quantitative data were analyzed using the statistical software DATAtab to determine the strength of the relationships between the variables and communication willingness. Qualitative data from the focus groups were analyzed thematically to complement and enrich the quantitative findings.

Preliminary Data Screening

The quantitative data underwent rigorous screening to adhere to foundational requirements for regression analysis, focusing on linearity, independence, homoscedasticity, and normality of residuals. Categorical variables, such as gender and grade, were transformed into aggregated variables for more detailed analysis.

Testing of Regression Assumptions

Comprehensive testing was conducted to validate the regression model's assumptions. The normality of residuals was affirmed using a series of tests: the Kolmogorov-Smirnov test resulted in a D value of 0.06 with a p -value of 0.735, and its Lilliefors correction indicated similar outcomes, along with the Shapiro-Wilk test ($W = 0.98$, $p = 0.234$), and the Anderson-Darling test ($A = 0.56$, $p = 0.147$), confirming no significant deviations from normality. The independence of residuals, assessed through the Durbin-Watson statistic, was satisfactory with a value of 1.83 ($p = 0.311$), indicating an absence of significant autocorrelation.

Multicollinearity was examined using Tolerance and the Variance Inflation Factor (VIF). Although the VIF values for TPB subjective norms (6.46) and TPB intentions (5.82) suggested some degree of multicollinearity, this indicated a potential limitation. Detailed multicollinearity results are provided in Table 3.

Table 3

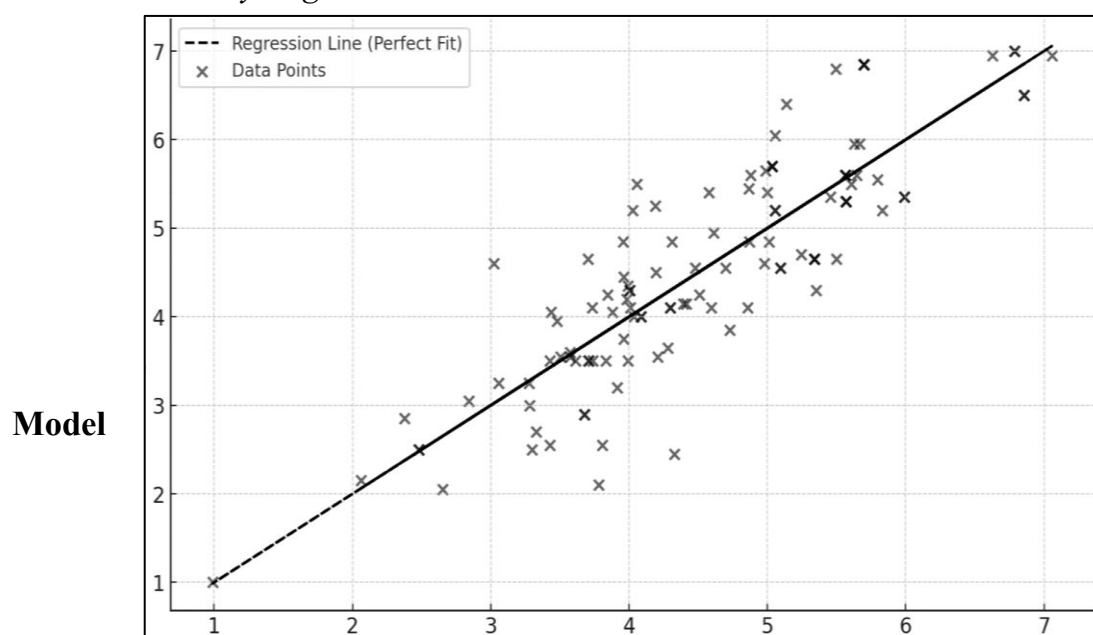
Multicollinearity

Model	Tolerance	VIF
Gender 0	0.79	1.27
grade 1	0.87	1.14
WTC	0.25	4
TPB Attitudes	0.34	2.9
TPB SUB-NORM	0.15	6.46
TPB PBC	0.44	2.26
TPB - Intentions	0.17	5.82
SDT - Autonomy	0.37	2.7
SDT - Competence	0.37	2.7
SDT - Relatedness	0.38	2.64

Model	Tolerance	VIF
SDT - Intrinsic	0.31	3.27
SDT - Extrinsic	0.42	2.38

Homoscedasticity was assessed by visual inspection of residual plots and further validated through the Breusch-Pagan test ($\chi^2 = 5.42$, $p = 0.14$), confirming a consistent variance across the data.

Figure 5
Homoscedasticity Regression Line



Specification and Estimation

The dependent variable, WTC in English as an L2, was analyzed using regression analysis to identify relationships with independent variables from the TPB (attitudes, subjective norms, PBC, intention to behave) and SDT (autonomy, relatedness, competence, intrinsic motivation, extrinsic motivation), plus demographic factors (gender and grade). Statistical software was utilized to derive the relationship equation and assess the model's explanatory power through R-squared values and the impact of predictor coefficients.

Qualitative Data and Theme Analysis

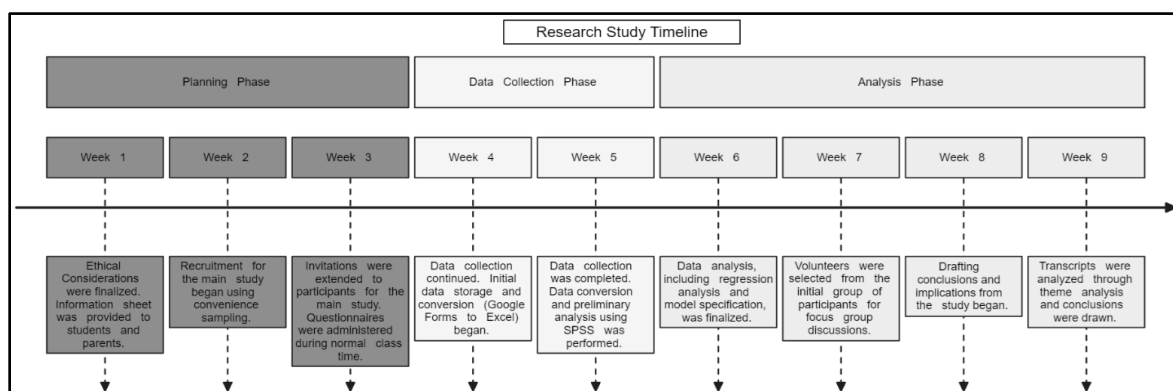
Qualitative data from focus group discussions were analyzed to identify themes that complement the quantitative findings, with initial coding and thematic reviews ensuring accurate representation of participants' views. This thematic analysis explored the dynamics influencing ESL students' willingness to communicate, incorporating rigorous impartiality and bias management. Validation involved volunteer discussions

and data triangulation, integrating these insights with regression analysis results to enhance understanding of factors affecting EFL students' communication willingness. This approach validated research hypotheses and informed effective communication strategies for ESL learners.

Timeline and Summary

The study was methodically planned and executed over the course of a single term of school. This approach ensured comprehensive data collection and analysis, leading to robust findings that contribute to the theoretical and practical understanding of EFL communication.

Figure 6
Research Study Timeline



Results

This section integrates the outcomes of the quantitative and qualitative analyses to explain the influences of TPB and SDT on EFL students' willingness to communicate. The results highlight how these theories predict communication behaviors and reveal the underlying psychological and demographic factors that may either facilitate or hinder effective communication in educational contexts.

Descriptive Statistics

The study comprised 113 students from a bilingual school in Northeastern Thailand, balanced across gender with slightly more males than females and a higher proportion of students in lower secondary education. Descriptive statistics provided initial insights into the dataset, revealing moderate to high levels of the constructs studied, with notable variability in responses. Key statistics including mean, standard deviation, and range scores for each construct related to TPB and SDT, as shown in Table 4.

Table 4
Descriptive Statistics of Study Variables

	WT C	TPB SN	TPB PBC	TPB Intentio n	SDT Attitude s	SDT Autonomy	SDT Relate	SDT Competenc e	SDT Intrinsi c	SDT Extrinsic
Mean	4.51	4.76	4.09	4.62	5.48	4.59	4.55	4.5	4.63	4.92
SD	1.26	1.32	1.1	1.24	1.21	1.01	1.03	1.31	1.50	1.22
Min	1	1	1	1	1	1.8	2.2	1.6	1	1
Max	7	7	7	7	7	7	7	7	7	7

Validity and Reliability of Items

Content validity was established through expert review by a psychological scientist, a health researcher, and an applied linguist. Items were assessed for clarity, theoretical alignment, and cultural relevance. Revisions were made to wording, scale anchors, and phrasing to ensure accurate representation of TPB and SDT constructs for Thai secondary students.

Construct validity was supported by prior research. For TPB, key studies by Ajzen (1985, 2011), Fishbein and Ajzen (2009), and Armitage and Conner (2001) demonstrated consistent links between attitudes, subjective norms, perceived control, and behavioral intentions. For SDT, Hagger and Chatzisarantis (2008) and Reeve and Cheon (2021) confirmed the predictive roles of autonomy, competence, and relatedness in language learning motivation. The WTC-FLS, adapted from Baghaei (2011), is grounded in the original framework by MacIntyre et al. (2001). It measures WTC with different interlocutors in various contexts. Its multidimensional structure has been widely validated and shown to align with learner confidence and engagement in EFL settings.

The scales used exhibited high internal consistency, with an overall Cronbach's Alpha of 0.93. Detailed analyses of item-total correlations indicated strong contributions from subjective norms and intentions within TPB and intrinsic motivation within SDT, underscoring their importance in the study's theoretical framework. Reliability results are summarized in Table 5.

Table 5
Reliability Results

Cronbach's Alpha	Number of Items
0.93	11

Further analysis revealed that TPB-subjective norms (0.86), TPB-intentions (0.87), and SDT-intrinsic motivation (0.80) had the strongest item-total correlations, highlighting their importance in scale consistency. While TPB-PBC (0.58) showed a lower correlation, its predictive significance in the regression analysis justified its inclusion despite minimal impact on Cronbach's Alpha. Other constructs, such as TPB-attitudes and SDT-autonomy, also contributed to the scale's reliability.

Predictive Strength

The multiple linear regression model was significant ($F(11,101) = 58.34, p < .001$), with an adjusted R^2 of .72, indicating that the model explains 72% of the variance in students' WTC. An R value of 0.87 reflects a strong positive correlation between observed and predicted WTC, reflecting the model's overall fit. The R^2 of 0.75 exceeds Cohen's (1988) threshold for a large effect size, underscoring the predictors' substantial influence. The standard error of 0.66 further confirms the model's accuracy in predicting WTC, highlighting the strong predictive power of TPB and SDT constructs.

Regression Analysis

The multiple regression analysis confirmed the predictive strength of TPB and SDT on WTC, with the model explaining 72% of the variance in WTC. The regression coefficients indicated significant positive effects from subjective norms, PBC, and competence on WTC. Conversely, extrinsic motivation showed a negative impact, aligning with theoretical expectations that external rewards might undermine intrinsic motivation to communicate. Key regression results are shown in Table 6.

Table 6
Regression Analysis Table

Predictor	β	Beta	Std. Error	t -value	p -value	95% CI Lower	95% CI Upper
(Constant) WTC	-0.07		0.42	-0.17	.867	-0.91	0.77
Gender	0.10	0.04	0.14	0.69	.494	-0.18	0.38
Grade	-0.15	-0.06	0.13	-1.11	.268	-0.42	0.12
Attitudes	0.16	0.15	0.09	1.80	.075	-0.02	0.33
Subjective Norms	0.37	0.39	0.12	3.20	.002**	0.14	0.60
PBC	0.29	0.25	0.08	3.54	.001**	0.13	0.45
Intentions	0.21	0.21	0.12	1.75	.084	-0.03	0.45
Autonomy	-0.12	-0.10	0.10	-1.18	.242	-0.32	0.08
Competence	0.22	0.23	0.08	2.96	.004**	0.07	0.37
Relatedness	0.06	0.05	0.10	0.61	.542	-0.14	0.26
Intrinsic	-0.03	-0.03	0.08	-0.33	.741	-0.18	0.13
Extrinsic	-0.16	-0.15	0.08	-2.02	.046*	-0.31	0.00

Note: * $p < 0.05$, ** $p < 0.01$

Qualitative Findings

The focus group discussions involved seven EFL learners at the school. The participants, representing a mix of genders from both upper and lower secondary levels, volunteered from the original cohort of 113 participants. They range between CEFR A2-B2 in English proficiency with second-term speaking grades from 1.5 to 4. The aim of these focus groups was to explore the motivations or barriers that influence students' willingness to communicate in English and to observe the commonalities between the qualitative and quantitative data findings.

The discussions were facilitated by the researcher, who was careful to adjust the complexity of the language used to match the students' diverse proficiency levels. The qualitative analysis was conducted using thematic analysis, a method outlined by Braun and Clarke (2006), which offers a flexible approach to identifying, analyzing, and reporting themes within data. This method was chosen for its ability to provide a detailed account of the factors affecting WTC, with the intention of offering more depth to the quantitative results previously presented.

Each section includes selected excerpts from the larger transcript of the focus group dialogues. These excerpts provide a direct look at the students' perspectives and were analyzed to highlight how various factors influence their communication behaviors. Additionally, a numerical connection to the quantitative findings chapter is made, linking these qualitative insights to broader data trends.

Table 7
Codes and Themes

Participant Response	Code	TPB/SDT Construct	Theme
Teacher say good job so I feel better and talk more.	Encouragement	Relatedness	Encouraged to Speak
If the class is nice like everyone is friendly then it's easier to talk. I feel more comfortable.	Comfortable Environment	Relatedness	Encouraged to Speak
I'm scared I'll make a mistake so I don't talk.	Fear of Mistakes	Perceived Behavioral Control	Discouraged to Speak
When I'm nervous I don't talk. It's too hard.	Anxiety	Perceived Behavioral Control	Discouraged to Speak
If they talk I talk too. It makes me feel okay to talk.	Peer Influence	Subjective Norms	Group Influence on Speaking
When work in smaller groups I talk more.	Group Size	Perceived Behavioral Control	Group Influence on Speaking
Sometimes if I get reward I talk more. But not always.	Reward Sensitivity	Extrinsic Motivation	Reward
When I really like a reward I try harder to talk.	Reward Preference	Extrinsic Motivation	Reward
Even if I can choose I still need help to talk.	Need for Support	Autonomy	Choice
When I feel I can do it I speak more.	Self-Perception	Competence	Perception of Ability

These following excerpts from the transcript illustrate the thematic analysis process and their relationship to the quantitative findings.

Encouraged to Speak

Asked, "What makes you want to talk in class?" Student 1: "Teacher says good job, so I feel better and talk more." Student 2: "If class is friendly, it's easier to talk." Student 3: "If I know they want me to talk, I try more." Student 6: "When someone shows interest, I feel confident." This aligns with TPB subjective norms positively affecting WTC ($\beta = 0.37, p = .002$), highlighting teacher and peer encouragement.

Perception of Ability

Asked if being good at English helps, Student 4: "If I think I'm good, I talk more." Student 5: "If I know the answer, I say it. If not sure, I stay quiet." Student 7: "It's easier to talk when sure." This supports the positive effect of SDT competence on WTC ($\beta = 0.22, p = .004$), showing confidence encourages communication.

Group Influence

Asked how classmates affect speaking, Student 2: "If they talk, I talk." Student 3: "If they laugh, I don't talk." Student 7: "Groups make me nervous when I'm not ready." Student 1: "Noisy groups stop me; good groups help me talk." Although SDT relatedness ($\beta = 0.06, p = .542$) was not significant, group dynamics influence speaking willingness.

Discouraged to Speak

Asked what discourages speaking, Student 1: "I'm scared I'll make a mistake." Student 5: "If I think they'll say something bad, I don't talk." Student 6: "When nervous, it's hard to speak." This reflects SDT extrinsic motivation's negative effect ($\beta = -0.16, p = .046$); fear deters communication.

Choice

Asked if choice helps, Student 3: "Even if I can choose, I need help." Student 1: "It helps, but I need support." Student 4: "If I'm not ready, it's still hard." Though autonomy ($\beta = -0.12, p = .242$) was not significant, students value choice but need support.

Reward

Asked about rewards, Student 4: "Sometimes, I talk more." Student 5: "Depends on the reward." Student 3: "If I like the reward, I try harder." This reflects SDT extrinsic motivation's mixed effect on WTC ($\beta = -0.16, p = .046$), showing rewards help inconsistently.

These themes collectively provide a nuanced understanding of the factors affecting WTC in the classroom. They complement the quantitative findings, reinforcing the significance of the methodology as a comprehensive approach to exploring WTC in EFL learners.

Discussion

The study identifies key predictors of EFL students' WTC in a Thai educational context. Findings indicate that subjective norms, PBC, and competence were the strongest influences, supporting TPB and aligning with prior studies (e.g., Yashima, 2002). In Thai classrooms, where cultural norms often discourage open participation (Ambele & Boonsuk, 2018), positive peer and teacher interactions played a crucial role in reducing communication anxiety. This suggests that supportive social norms can counter silence-driven behavior, where students frequently compare themselves to peers with stronger English backgrounds.

The integration of nine theoretical constructs from TPB and SDT creates a comprehensive model explaining various factors affecting EFL students' WTC. The research enhances our understanding of how internal motivations and external perceptions directly influence students' classroom communication in EFL settings. In addition, it contributes to the literature on the dual nature of teaching challenges for L2 educators by demonstrating how students' internal desires interact with external factors that affect their communication readiness.

The study's main goals receive significant support from TPB and SDT regarding factors that drive or prevent students from using English for communication. The application of these theories demonstrates their applicability in EFL learning environments while providing improved understanding of how teachers should adapt to student psychological and situational factors. PBC exists within specific contexts because it develops through interactions between people and learners' self-assurance levels. Shen et al. (2023) stated that digital environments with higher PBC levels produced more WTC because these platforms provide reduced pressure and identity-supportive features. According to Hewitt (2004), process validity together with feedback quality directly affects student confidence and motivation. Students become more willing to participate when they receive feedback that provides information for development instead of making judgments.

The combination of TPB and SDT theories demonstrates that students need supportive learning environments which provide challenges to develop their confidence while building communicative skills and sustaining long-term participation.

Competence, a core construct of SDT, was another strong predictor ($\beta = 0.22$, $p = .004$). Students who saw themselves as capable were more inclined to communicate, consistent with Bandura's (1997) view of competence as a driver of motivated behavior. Feedback reinforced this self-perception. However, the data suggest that competence often needs to precede autonomy. As one student noted, "Even if I can choose, I still need help to talk." This complicates SDT's claim that autonomy reliably enhances motivation. In low-proficiency settings, autonomy without competence may not increase WTC. Classroom tools such as speaking rubrics or personal goal-setting, can aid learners in tracking progress, building competence and indirectly supporting autonomy.

While intrinsic motivation did not significantly predict WTC in the regression ($\beta = -0.03$, $p = .741$), qualitative data showed that interest-aligned tasks still encouraged participation. This supports Deci and Ryan's (1985) emphasis on internalized motivation. Providing students with choices, such as biographies or graphic novels, may boost interest and indirectly support WTC by increasing task value and reducing resistance.

In contrast, extrinsic motivation showed a small but significant negative correlation with WTC ($\beta = -0.16$, $p = .046$). This aligns with Deci et al. (1999), who argued that controlling rewards can undermine intrinsic motivation. Some students reported being motivated by rewards, but others felt pressured or indifferent. These mixed responses indicate that extrinsic incentives, if poorly integrated, may reduce meaningful engagement. Overuse of such rewards may shift the focus from authentic communication to performance, especially in students already prone to anxiety.

Overall, these findings reinforce the value of TPB and SDT in explaining WTC, while also highlighting the influence of classroom conditions and cultural norms. Subjective norms, PBC, and competence were the clearest predictors. This suggests that adaptive, culturally aware teaching that builds confidence, supports peer interaction, aligns with student interests, and manages rewards carefully may best support sustained WTC in Thai EFL learners.

Implications

The integration of SDT and TPB provides specific recommendations to enhance EFL students' WTC. Educational strategies should extend beyond language instruction to address social context while fostering internal motivation. Students are more likely to participate when supported by peers and instructors, necessitating emotionally responsive classrooms.

Perceived competence significantly influences WTC, so targeted interventions should focus on building students' communication self-efficacy. Effective pedagogy requires teachers to provide constructive feedback and opportunities for student choice as fundamental elements. Educational systems that combine emotional support, social backing, and academic assistance create optimal conditions for language learning success.

Although autonomy and intrinsic motivation were less emphasized, they remain significant. A strategy incorporating teacher support, social context, and confidence enhancement can significantly improve learning participation. Promoting positive social norms alongside regular language practice can reduce communication apprehension and increase WTC, particularly in collectivist cultures such as Thailand, where fear of embarrassment may deter participation. Strong peer and teacher-student relationships foster connections that enhance comfort in both bilingual and monolingual learning environments. A supportive classroom environment promoting social

integration offers a broadly effective approach to addressing social barriers in EFL contexts.

Conclusion

The combination of nine theoretical constructs from TPB and SDT provides a comprehensive framework for understanding the factors affecting EFL students' WTC. This study illustrates how internal motivations and external perceptions interact to shape classroom communication in EFL settings. It highlights the multifaceted obstacles that L2 educators encounter by recognizing both internal and external factors.

The study's objectives are clarified through TPB and SDT, which elucidate the factors driving or hindering students' desire to communicate in English. Their application confirms their applicability in EFL contexts and deepens our understanding of how teachers can address students' psychological and situational needs.

The integrated TPB-SDT approach paves the way for further research on developing communication opportunities in EFL classrooms. The study underscores that learning environments need to be both supportive and challenging to foster language skills with purposeful confidence. These environments extend beyond language learning to create optimal conditions for communication skills development and student participation.

Limitations

This study offers valuable insights into enhancing WTC in EFL learners, but some limitations should be noted. Conducted in a single bilingual school, the findings may not fully apply to other educational or cultural contexts. The cross-sectional design captures a single moment, limiting the ability to observe changes in WTC over time. Additionally, reliance on self-reported data may introduce response bias, as students might provide socially desirable answers. These limitations highlight areas for future research while maintaining the study's overall contributions.

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