The Effects of Differentiated Instruction in an Online Classroom on the Levels of Willingness to Communicate of Thai EFL Undergraduates

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Abstract

This article aimed to study (1) the needs of students in the Foundation English 1 course in an online classroom regarding their interests in topics and the learning styles of the students, and (2) the effects of differentiated instruction in an online classroom on the levels of willingness to communicate in English. The sample group consists of 30 students who enrolled in Foundation English 1 but are not English major students. The sampling method used is simple random sampling. These students are from an educational institution in Bangkok from the third semester of the academic year 2022. The research tools used in this study include a needs analysis questionnaire to identify needs, lesson plans, a willingness to communicate questionnaire in the Linkert scale, and semi-structured interviews. The data were analyzed by using Mean, Standard Deviation (SD) values, a Paired Sample T-Test to compare the pre-test and post-test, and content analysis applied to interview results. The results indicated that students' interests in lesson topics, including self-introduction, eating out, traveling, and fashion, in terms of learning styles exhibit characteristics of images, symbols, and sounds. The pre-test mean score was 2.08, SD = 0.97 which indicated a low level of willingness to communicate. The post-test mean score was 3.80, SD = 0.94, which indicated a high level of willingness to communicate. When comparing the means using the Paired Sample T-Test, it was found that there was a statistically significant difference at the .05 level. This research suggests that the findings can be utilized as a guideline for designing English lessons aiming at developing a willingness to communicate, thus assisting in enhancing speaking skills in the future.

Keywords: willingness to communicate; differentiated instruction; online learning environment

Introduction

Communication is one of the four essential skills of the 21st century. Learners studying English as a foreign language are thus encouraged to use English for communication in the classroom as much as possible. However, research reports have revealed that learners are often hesitant to speak or communicate in English in the classroom (Bailey, 2005). When learners feel hesitant, they experience fear and confusion, lose confidence, and consequently avoid communication and participation in classroom activities (Khan, 2015). Yet, communication skills require regular and consistent practice. If learners lack the courage to speak and communicate, it becomes challenging to develop and promote their communication skills to a higher level. Moreover, Chotipaktanasook (2014) found that the willingness to communicate among undergraduate students studying English as a foreign language in Thai English classrooms remains limited. Specifically, the level of willingness to communicate among students is low, which may hinder the development of their learning capabilities in English classrooms. Kamprasertwong (2010) reported that most Thai learners seem reluctant to use English for communication in the classroom. The researchers conducted preliminary interviews with students at a university in Bangkok and found that most students felt unconfident and embarrassed to speak English with their classmates and teachers, especially in the classroom. The students also mentioned that they feared losing face if they made mistakes in class. From these reasons, it can be inferred that the willingness to communicate in English is one of the key factors in developing learners' English-speaking skills.

Willingness to communicate is defined as "a readiness to enter into discourse at a particular time with a specific person or persons, using an L2" (MacIntyre et al., 1999). It is divided into two levels: trait-like and situational. At the trait-like level, MacIntyre et al. (1999) explain that this level pertains to an individual's inherent predisposition to initiate communication across various situations where communication is appropriate. Conversely, at the situational level, the specific context influences the decision to initiate communication in that particular situation. Factors influencing willingness to communicate at the trait-like level are considered aspects of an individual's personality that determine whether they initiate or avoid communication in various contexts and with different interlocutors. At the situational level, willingness to communicate is regarded as a temporary variable that depends on the specific situation and the conversation partner.

Therefore, this study focuses specifically on situational variables, as they have a direct influence on the willingness to communicate (MacIntyre et al., 1998). These variables include the topic, the interlocutor, and the context of the conversation (Kang, 2005), and they have a more immediate impact on the willingness to communicate (Phatphong, 2010). According to Kang's (2005) situational model of willingness to communicate, situational willingness to communicate arises from the interplay of various factors. Psychological safety, excitement, and responsibility are considered antecedents, leading to the subsequent emergence of willingness to communicate. Farouck (2016) further suggests that willingness to communicate arises from various factors such as learners' communication culture, learning context, and teaching methodologies. Therefore, designing learning environments that support and promote these factors is crucial for developing learners' willingness to communicate in English.

One beneficial instructional method that emphasizes the learner's role is Differentiated Instruction. Tomlinson (2010) defines differentiated instruction as "effective teaching that necessitates education and implementation with careful consideration and intentionality to address the specific needs of learners. Differentiated instruction enables us to perceive learning from the diverse perspectives of students, which is a nuanced aspect of educational management. At times, we may focus on the similarities within differences." This aligns with van Geel et al. (2022), who state that differentiated instruction is defined as "the instructor's response to the specific needs of learners, such as learning readiness, interests, language proficiency, existing knowledge, and learning preferences. This is achieved by modifying teaching methods, instructional pace, objectives, levels, and tasks for individual students, groups, or the entire class" (van Geel et al., 2022). This approach enables educators to analyze individual student backgrounds and implement instructional strategies that effectively address individual differences, thereby fostering student development toward prescribed learning outcomes. The implementation of differentiated instruction may catalyze enhancing learners' willingness to communicate (Sankaburanurak, 2016). Furthermore, Farrelly and Sinwongsuwat (2021) found that when instructors are cognizant of and prioritize the promotion of interactive opportunities among learners within the classroom environment, it significantly enhances success in second language or foreign language acquisition.

However, fostering interactive engagement among learners within a traditional classroom environment can present significant challenges. Through interviews conducted by the researcher, it was revealed that a majority of students experience feelings of shyness and fear of losing face.

They express a lack of confidence and fear of losing face if they make mistakes during classroom interactions (Kang, 2005).

Consequently, modifying the learning environment may facilitate a greater propensity for students to develop their willingness to communicate. In recent times, online learning has emerged as a widely adopted platform, particularly during the COVID-19 pandemic. The majority of English language instruction has transitioned from traditional classroom settings to virtual learning environments. This shift represents a viable alternative for maintaining teaching and learning processes during challenging periods, as it effectively eliminates constraints related to distance and time (Melvina, et al., 2020). Furthermore, learning through online classrooms may indicate an enhancement in learner efficiency. Some research studies report that internet-based online conferences enable learners to perceive immediate connectivity, increased motivation, and enjoyment (Havwini, 2019). Shishkovskaya et al. (2015) revealed that students exhibited heightened motivation and improved English language proficiency during periods of online instruction. Consequently, the implementation of online classroom instruction represents a beneficial learning environment in this digital era.

Shishkovskaya et al. (2015) propose that online classroom instruction is characterized by several key features: flexibility, unlimited communication space for learner-learner and learner-instructor interactions, Enhanced sense of security due to the ability to learn in comfortable, self-selected environments, Promotion of learner self-management, Increased capacity for information retrieval, compilation, and sharing. These characteristics may potentially foster the psychological antecedents of situational willingness to communicate (WTC) as conceptualized by Kang (2005), namely: security, excitement, and responsibility. Furthermore, they may influence the situational variables that affect situational WTC: topic of conversation, interlocutors, and conversational context.

Moreover, a review of research on the promotion of willingness to communicate (WTC) in English through technology use among Thai learners reveals significant findings. Reinders and Wattana (2014) demonstrated that the integration of online digital games as learning tools contributes to enhanced confidence and a higher level of willingness to communicate in English among learners. Chotipaktanasook (2014) investigated the incorporation of social media into teaching and learning processes. The study found a reduction in learners' anxiety when speaking English, accompanied by an increase in willingness to communicate in English and perceived

communicative competence. Additionally, the frequency of English language production was observed to increase.

Therefore, to develop and promote willingness to communicate (WTC) in English, which can enhance and foster language learning (Rizvić and Bećirović, 2017), the implementation of differentiated instruction through online classrooms is crucial in current educational settings.

Research Objectives

1. To assess the needs of undergraduates conducted in an online classroom environment, with a focus on learner interest in lesson topics and learning styles.

2. To investigate the effects of differentiated instruction in an online classroom environment on the levels of willingness to communicate in English among undergraduates.

Literature Review

Since the focus of the present study was to investigate the effects of differentiated instruction in an online learning environment on the levels of willingness to communicate, three underlying concepts were the main focus of the study; differentiated instruction, online learning environment, and willingness to communicate. The general characteristics of each concept were discussed in this section.

Differentiated Instruction: According to Heacox (2002), differentiated instruction involves adjusting instruction to each student's individual requirements, learning styles, and interests. This instructional style emphasized individual student diversity in the classroom. Due to diversity in the classroom, some students struggled to master lesson goals, while others found the lessons lacking in challenge. In many classrooms, teachers took a one-size-fits-all strategy despite varying student needs. Differentiated instruction significantly improves teaching effectiveness, particularly for digital native students.

To effectively implement differentiated instruction, online learning allows students to learn content based on their interests, exploring lessons at their own pace. This instruction also allows students to practice content online with teacher and peer assistance.

Online Learning Environment: Online learning refers to studying outside the classroom via the internet, e-learning, which is an alternative to face-to-face learning in physical classrooms. Online learning can take place via transferring face-to-face instruction through an

online learning environment. It could also incorporate online content with learning instructions that do not require face-to-face interaction. These subtleties make online learning a challenging topic for several stakeholders. Despite the various difficulties, online learning has converged on the flexibility and convenience it provides (Muthuprasad et al., 2021; Tamara & Warschauer, 2022). Reinders and Wattana (2014) have shown that technology can play a role in the development of WTC. Therefore, it could be an interesting and potential way to improve their language learning and skills. The interactive features of social media may have the potential to help improve students' language skills, increase self-confidence, and increase WTC.

Willingness to communicate: Willingness to communicate (WTC) involves a student's desire to communicate in a second or foreign language conversation when given opportunities (MacIntyre et al., 1998). Willingness to communicate could be viewed from two levels, which are a trait level and a situational level. At the trait level, MacIntyre et al. (1999) stated that it created an inclination or tendency in individuals to initiate communication in situations where communication was expected. On the other hand, on a situational level, it influenced the decision whether to initiate communication within a particular situation or not. This study focuses on situational variables, such as communicative competence and self-confidence, which directly influence willingness to communicate (WTC) and can change depending on context. Individual traits, such as personality, motivation, and attitude, have a stable influence on WTC but are not immediate and depend on individuals. This study also aims to design activities and assignments to enhance WTC levels. WTC impact varied from learner to learner and was dependent on several factors, particularly the topics of discussion and the attitudes of their interlocutors.

In conclusion, in a diverse classroom, students had differences in terms of their levels, interests, or learning styles, so differentiated instruction was needed to tailor the instruction that was appropriate for them by using an online learning environment to enhance their WTC levels.

Conceptual Framework

This study is quantitative research. The researchers employed the conceptual framework of an online classroom environment in EFL classrooms, as proposed by Shishkovskaya et al. (2015), and teaching steps for Differentiated Instruction, as suggested by Tomlinson (2017). The details were presented as follows.
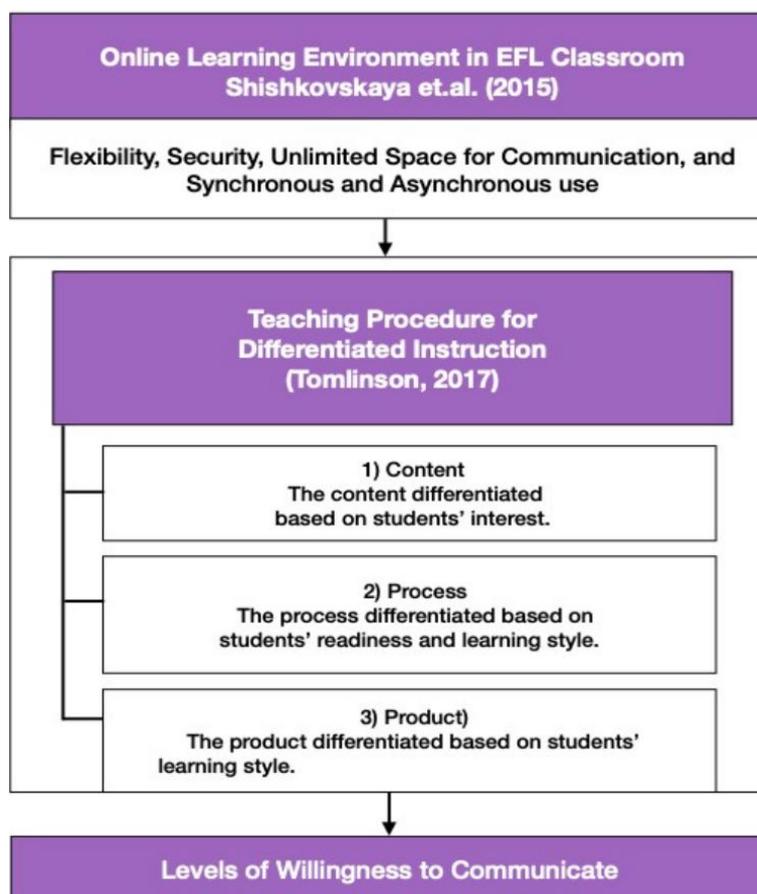
Figure 1. Conceptual Framework for E-learning Environment in EFL Classroom (Shishkovskaya et al., 2015) and teaching procedures for Differentiated Instruction (Tomlinson, 2017)

Research Methodology

This study employs a quantitative research methodology, specifically utilizing a quasi-experimental research design. The experimental procedure follows the One Group Pretest-Posttest Design as outlined by Creswell (2014). The research process consisted of two phases. For Phase 1, the researchers collected data using: a needs assessment questionnaire and a pre-test measure of willingness to communicate in English. For Phase 2, following the implementation of the instructional intervention, which involved differentiated instruction in an online classroom environment, the researchers conducted post-study assessments. The sample consisted of 30 participants, selected through simple random sampling. The consent form had been signed by the students before they participated in the present study. The intervention was implemented over 12 weeks, with 3 hours of instruction per week. Upon completion of the instructional intervention, the researchers conducted the following data collection procedures:

1. The post–test: The researchers administered the post–test measure of willingness to communicate (WTC) in English to all participants.

2. Semi–structured interview: The final phase of the research process involved a qualitative component. Six participants were randomly selected for in–depth, semi–structured interviews.

Research Instruments

Research instruments in this study are categorized into two types: experimental tools and data collection tools. The details are as follows:

2.1 Experimental Tool:

The experimental tool is the instructional plan for the Foundation English 1 course, designed based on the differentiated instruction concept as proposed by Tomlinson (2017). The development of this instructional plan was informed by data collected from a needs analysis questionnaire administered to the target population. The instructional plan is structured into four learning units: Self–introduction, Eating–out, Travelling, and Fashion. Each learning unit follows three three–teaching steps:

2.1.1 The content is the stage of presenting the content of English lessons through learning topics that students are interested in.

2.1.2 The process is an organization of the learning process according to the potential and learning style of the students in order to enable students to understand and practice the content through various activities.

2.1.3 The product involves presenting the assignment produced by students, showcasing the various projects they have undertaken according to their learning styles.

Then, the researchers considered the Index of Item–Objective Congruence (IOC) which evaluates the lesson plans at each stage by three experts in the English language teaching field. The consistency index value was 0.89 and the lesson plan was piloted with a non–sample population of 10 students. The results were recorded to be adjusted and revised by three experts to check their suitability before implementing them in the experiment.

2.2 Data collection tools

2.2.1 A needs analysis questionnaire: It is used to investigate the needs of the topic that the students were interested in, and the learning style of the students, that is, through which learning style the students will be able to learn, practice, and present the product best.

2.2.2 Willingness to communicate in English questionnaire: The present study employed a willingness to communicate in English questionnaire before and after the intervention through an online classroom using differentiated instruction. This questionnaire was adapted from Reinders and Wattana (2014) by using Tomlinson's (2017) concept of differentiated instruction that emphasizes individual differences. The concept consists of 1) the content which is differentiated based on students' interest, 2) the process which is differentiated based on students' readiness and learning style, and 3) the product which is differentiated based on students' learning style.

Learning environments were organized through online classrooms according to the concept of Shishkovskaya et.al. (2015) which emphasizes flexibility, unlimited space for communication, and a sense of security. This learning environment also helps increase students' self-management, searchability, gather and share information that may reinforce psychological causal factors in willingness to communicate according to the situation. These include safety, excitement, and responsibility. In addition, situational variables that affect willingness to communicate according to the situation include topics, interlocutors, and conversational context according to Kang (2005). In addition, the semi-structured interviews after the intervention to gain insightful data. Then, the researchers considered the Index of Item-Objective Congruence (IOC) evaluation items. The index of congruence of the willingness to communicate questionnaire is 0.86. Then the willingness to communicate in the English questionnaire was piloted with 10 non-sampling students to assess the confidence value by using the repeated test method to find the relationship between scores from taking the same questionnaire twice and leaving a gap of 2 weeks Then, the results were analyzed using Pearson correlation, and it was found that the coefficient was 0.89.

Data Collection

The researchers collected data using a pre-test of the English Willingness to Communicate questionnaire. The instructional plan, based on differentiated instruction through an online classroom, was implemented with a sample group of 30 participants selected through simple random sampling.

The intervention lasted for 12 weeks, with sessions held for 3 hours each week. After the intervention was completed, the researchers collected post-test scores using the same English Willingness to Communicate questionnaire. Moreover, six participants were randomly selected for in-depth data collection through semi-structured interviews.

Data Analysis

The statistics used in this study include the calculation of Mean and Standard Deviation to determine the levels of willingness to communicate both before and after the intervention. A Paired Sample T-Test was employed to compare the mean scores before and after the intervention to ascertain if there were statistically significant differences. The interpretation of the Willingness to Communicate questionnaire follows the criteria outlined by Sözen and Guven (2019), which categorizes scores into five levels: 1–1.80 indicates strongly disagree, 1.81–2.60 indicates 'disagree', 2.61–3.40 indicates 'neither/nor agree', 3.41–4.20 indicates 'agree', and 4.21–5 indicates 'strongly agree'. Finally, content analysis was employed on the semi-structured interview data.

Research Results

The present study examined the effects of differentiated instruction in an online classroom on undergraduate students' willingness to communicate in English. The characteristics of the sample unit consist of 17 male students and 13 female students. They were from the Faculty of Industrial Education and Technology. This study yielded the following results based on the research objectives:

1. The needs analysis regarding topics of interest identified four learning units: Self-introduction, Eating-out, Traveling, and Fashion. The assessment of learners' preferences and learning styles revealed that learners exhibited a collaborative learning style and an interactive learning style.

2. The effects of differentiated instruction in an online classroom on undergraduate students' willingness to communicate in English indicated that the Mean score for willingness to communicate in English before the intervention was 2.08 (S.D. = 0.97), which is considered low. After the intervention, the Mean score was 3.80 (S.D. = 0.94), which is considered high, as shown in Table 1.

Table 1 The Mean and Standard Deviation of the willingness to communicate in English before and after the intervention

Communication Tasks	Pre-test			Post-test		
	M	SD	Interpretation	M	SD	Interpretation
1. Speak English in small groups with classmates about activities learned in the online classroom.	2.00	0.77	Disagree	3.90	0.98	Agree
2. Ask classmates in English for clarification when feeling confused about activities in the online classroom.	2.10	0.98	Disagree	3.83	1.10	Agree
3. Ask teachers in English for clarification when feeling confused about activities in the online classroom.	1.63	0.84	Disagree	4.07	0.81	Agree
4. Exchange thoughts or ideas in English with friends about activities done in the online classroom.	1.90	1.04	Disagree	4.27	0.68	Agree
5. Exchange thoughts or ideas in English with teachers about activities done in the online classroom.	1.70	0.97	Disagree	3.43	1.05	Neither
6. Present to classmates in English in the online classroom.	3.07	1.03	Neutral	3.67	1.04	Agree
7. Volunteer to answer questions in English during the online classroom activity.	1.83	1.07	Disagree	3.23	1.02	Neither
8. Volunteer to participate in role-playing activities in the online classroom.	3.07	1.06	Neither	3.70	1.13	Agree
9. Volunteer to read activity instructions or various prompts in English in the online classroom environment	2.60	1.14	Neither	4.53	0.76	Strongly agree
10. Listen to classmates' opinions on activities conducted in the online classroom and posing questions in English when uncertain or confused	1.77	1.02	Disagree	3.70	1.04	Agree
11. Ask about unfamiliar vocabulary from classmates through the online classroom platform	2.27	1.12	Disagree	3.33	0.98	Neither
12. Ask about unfamiliar vocabulary from teachers through the online classroom platform	1.63	0.98	Disagree	3.13	0.99	Neither
13. Request examples of online classroom activities from the instructor by posing questions in English	1.47	0.72	Strongly disagree	3.77	0.96	Agree
14. Answer questions in English through an online classroom, even if you are not sure if they are correct.	1.73	0.68	Disagree	3.77	1.02	Agree
15. Share your feelings in English about activities or lessons you do in the online classroom with your classmates.	2.50	1.15	Disagree	4.67	0.60	Strongly agree
รวม	2.08	0.97	Disagree	3.80	0.94	Agree

From Table 1, it was found that the Paired Sample T-Test to compare the mean scores of the post-test and pre-test indicated a statistically significant difference in the willingness to communicate in English at the .05 level (p = .000), as shown in Table 2.

Table 2 The results of comparing the mean values of the pre-test and post-test through Paired Sample t-test

	M	SD	t	df	Sig.(2-tailed)
Pre-test	31.3	4.33	12.84	29	.000
Post-test	57	10.38			

* $p < .05$

The results of the semi-structured interviews after the intervention with six students were analyzed using content analysis, revealing four main factors that contributed to the increased level of willingness to communicate:

1) Online Learning Environment

Students found that the online learning environment helped them feel more relaxed, as it eliminated the burden of commuting. They also felt more familiar and comfortable using technology such as computers or, at times, mobile phones for their studies, which reduced stress. Additionally, searching for information became more convenient and quicker, without the fear of being watched by classmates or instructors for using mobile phones during class, unlike in traditional classroom settings.

2) Reduced Fear of Losing Face

Students reported that online learning encouraged them to speak up, share their opinions, and answer questions more freely. This contrasted with traditional classroom settings, where they often felt anxious, fearful, or embarrassed about speaking or giving incorrect answers due to the fear of being mocked by classmates, judged by classmates and teachers, or perceived as not proficient. Speaking through computer programs or mobile phones, even with the camera on, alleviated these concerns.

3) Learning Activities

Students found the learning activities enjoyable, engaging, and relevant to their interests, which allowed them to express their opinions comfortably. The variety in learning formats, activities, and content catered to different preferences and strengths. For instance, students who preferred learning through reading with visual aids could choose activities centered around diagrams and images, while those who favored auditory learning could opt for activities that involved listening. This flexibility facilitated better understanding and quicker comprehension of the material, which encouraged them to speak up and share their thoughts. Additionally, being able to collaborate with classmates they felt comfortable with, and choosing their partners, further alleviated any discomfort associated with speaking.

4) Presentation

Students discovered that having the freedom to select a presentation approach that aligns with their comfort level and personal interests enhances their confidence in speaking and delivering their work. Typically, presentations are limited to being delivered in front of the class. However, in this study, students had the option to choose from a variety of presentation formats, including demonstrations, role-playing, and multimedia presentations. This freedom of choice serves as a motivation for them to create their own work.

Discussion

This study examined the effect of differentiated instruction in an online classroom on the levels of willingness to communicate of Thai EFL undergraduates. The researchers presented a discussion of the research results according to the research objectives as follows:

1. The results of the students' needs analysis in topics that they are interested in can be divided into 4 learning units: Self-introduction, Eating-out, Travelling, and Fashion. The results of the study of students' needs in terms of learning styles according to their preferences or aptitude in receiving information found that students have a learning style through images and symbols and a learning style through sounds. The researchers have analyzed the results of these students' needs to design lesson plans based on the topics that the students are interested in, which is important in helping to stimulate the student's interest and curiosity (Tomlinson, 2017), helping to create excitement in the students, which is an important factor in promoting the willingness to communicate (Kang, 2005). In terms of learning style, it will help teachers design learning activities in the process and product stages to suit the students' preferences or aptitudes in receiving information appropriately. In this study, students have a learning style through images and symbols, which can be inferred that students will be able to learn well if they see various images and symbols. The researchers, therefore, used the content presentation and activities through the use of diagrams, and colorful images, and allowed the students to do activities, and design things in the form of images, diagrams, and charts to suit the students' learning styles. In addition, it was found that the students also had an auditory learning style, which can be inferred that the students will be able to learn well if they listen or speak. The researchers, therefore, used the presentation of content and activities through speaking, audio clips, and video clips, and

allowed the students to do activities that emphasize listening and speaking, such as using Voice chat, etc.

2. The reason that the students who received the differentiated instruction in the online classroom had a significantly higher mean level of willingness to communicate in English than before the intervention at the statistical significance level of .05 was due to the following reasons: First, learning about topics of interest or doing activities on topics that are relevant to the learner's experience (Chaisiri, 2023) helps to stimulate learners to have fun, want to learn, and be able to learn better and faster than traditional learning.

Second, students have a sense of security while learning (Kang, 2005). That is, when students shared their feelings in English about activities or lessons conducted in the online classroom with their classmates and volunteered to read activity instructions or tasks in English, they shared them via electronic devices with which they were familiar. Consequently, their anxieties decreased, so they were not afraid of speaking out or losing face. Furthermore, the characteristics of online classroom learning contribute to a joyful, easygoing environment, with no pressure from classmates' teasing glances. Furthermore, when students practice online more, their ability to communicate face-to-face improves.

Third, students feel excited, which is another important factor that helps promote students to have a high level of willingness to communicate (Kang, 2005). This instruction that emphasizes individual differences through online classroom learning has a needs analysis to analyze students' interests to select and design content and activities that are consistent with students' interests. Therefore, it serves as a motivating factor for students to persist in their learning. In addition, learning through online classrooms has features or websites that help create fun along with reading and doing various activities. As a result, it fosters or stimulates students' willingness to communicate effectively. This also affects communication development because positive emotions are a main factor in communication (Prior, 2019).

Lastly, this type of teaching is designed to have a conversational context and a variety of activities that help increase the level of willingness to communicate (Hanifah & Nainggolan 2021). As MacIntyre and Wang (2021) stated, willingness to communicate changes according to the student's motivation and emotions, which are affected by the deep understanding and relevance of the topic in the lesson. When students are willing to communicate their feelings, ideas, or needs to others, it is an important step in developing their English-speaking skills. Exposing learners of

English as a foreign language to a variety of situations and encouraging them to communicate more with people they are happy to talk to can increase their willingness to communicate.

New Knowledge

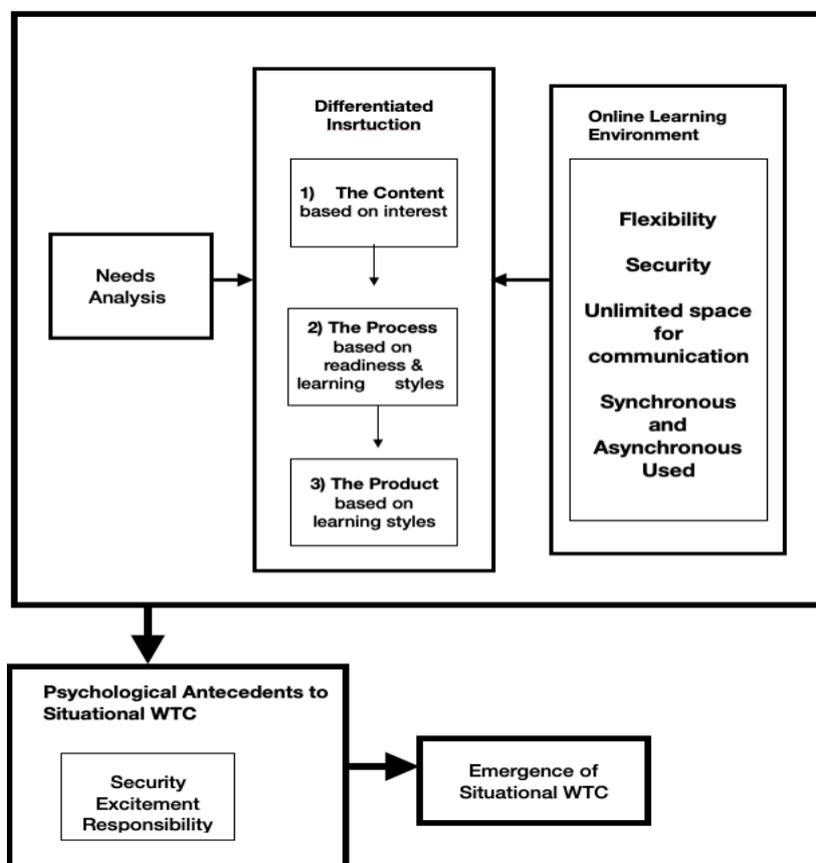The new knowledge received can be represented by the following figure.

Figure 2 The combination of differentiated instruction and online learning environment for enhancing willingness to communicate.

From Figure 2, new knowledge gained from this research demonstrates implementing differentiated instruction in an online classroom can improve students' willingness to communicate. The willingness to communicate was recognized as one of the most important factors in speaking. However, few studies in English language teaching have reported on enhancing the level of WTC through instruction, primarily focusing on individual differences within an online learning environment. Therefore, teachers who would like to enhance students' speaking skills may employ this concept in their classroom. Firstly, a needs analysis should be conducted with the target students. Secondly, the content of the lessons should rely on the results of the needs analysis to

tailor the content to the topics that most students are interested in. This could create the students' excitement, and the asynchronous use of the online learning environment may have a positive effect on the psychological antecedents of situational WTC. Thirdly, the process, which highlights how the students make sense of the new knowledge and how they practice the lesson learned in the previous step, should rely on the results of the needs analysis. In this case, it was differentiated based on students' readiness and learning styles. This could potentially enhance the sense of security for students. Furthermore, the online learning environment's flexibility, unlimited space for communication, and synchronous use features may have a positive effect on the psychological antecedents of situational WTC. Fourthly, the product from which students could conclude and present their new knowledge gained from the particular lesson should also rely on the results of the needs analysis. In this study, it was differentiated based on learning styles, which were images, symbols, and sounds. This could affect the feeling of responsibility as well as the unlimited space for communication, and the synchronous use features of the online learning environment tend to provide rooms for students to communicate, which may have a positive effect on the psychological antecedents of situational WTC.

In conclusion, the beneficial results from the needs analysis that led to the instruction that was differentiated concerning the individual differences together with the features of the online learning environment could lead to a positive effect on the psychological antecedents of situational WTC. Then situational WTC emerged.

Conclusion

This quantitative study was conducted to investigate the interests and learning styles of Foundation English 1 students in an online classroom and determine how differentiated instruction affects English communication willingness. The data gained from questionnaires, lesson plans, a Linkert scale willingness to communicate questionnaire, and semi-structured interviews were collected from non-English major undergraduate students. The collected data were analyzed by using Mean, SD, Paired Sample T-Test, and content analysis of interview results. The results responded to the two main research objectives. Regarding the first objective about the interests and learning styles, it was found that students' interests in lesson topics including self-introduction, eating out, traveling, and fashion, and in terms of learning styles, the results exhibited that images, symbols, and sounds matched preferred students' learning styles. For the second research

objective concerning the effects of differentiated instruction on willingness to communicate in English, the findings revealed that students who were given differentiated instruction in an online classroom had a much greater mean degree of willingness to speak in English.

Suggestions

1. Suggestions for the Application of Research Findings

1.1 The results of this research help create awareness of the importance of promoting a willingness to communicate in English because it is an important factor that will help develop students' communication skills and English-speaking skills. In addition, administrators of educational institutions can apply this to educational policymaking which allows teachers to have freedom in designing lessons that are appropriate for teaching English in a particular context.

In addition, the budget should be given to teachers to encourage them to create more online teaching media, promote online learning with foreign universities through online learning such as Coursera, or make joint agreements with foreign educational institutions to find ways to organize joint teaching and learning so that students have the opportunity to practice communicating with a variety of people, and so forth.

1.2 The research findings indicated that differentiated instruction has a significant impact on the willingness to communicate in English, which in turn influences students' motivation, enhances their commitment to learning, and improves their English language proficiency. These results not only demonstrate an increased willingness to communicate in English among students but also suggest that instructors can adapt their teaching designs to better suit the diverse language abilities of students in online learning environments. This involves creating classroom settings that accommodate varying levels of knowledge and skills, such as through 1) Massive Open Online Courses (MOOCs), 2) Flipped, hybrid, or blended courses, and 3) Small Private Online Courses (SPOCs) (Princeton University, 2018). Thailand also offers online educational programs accessible to the general public, such as Thai MOOC and the Thailand Cyber University Project (TCU). These diverse online learning environments can foster students' curiosity about the content and motivate them within the 21st-century educational framework, which includes numerous online learning resources. Instructors can tailor these resources to fit the varied learning styles of contemporary students, addressing individual differences across multiple dimensions (Wannaprapha & Todsapim, 2019).

The findings of this research are consistent with the study by Eikeland and Ohna (2022), which found that differentiated instruction provides a clearer overall picture of teaching and learning by considering conditions, policies, implementation, and beliefs at both school and systemic levels. This approach can be applied to create new teaching innovations, guiding the design of activities that encourage a greater willingness to communicate among students. In addition, technological advancement and internet networks have made online teaching more convenient. Moreover, instructors can create diverse lessons from various learning resources.

2. Suggestions for further research

Researchers interested in this topic can explore further by modifying the study population, incorporating additional research instruments, and adjusting the theoretical framework. Moreover, they can develop and implement online learning plans using different instructional methods, such as applications that facilitate conversations with native speakers. This would allow for a comparison of the outcomes with the current study, where students only interact within their classroom and use the same language, to determine the similarities and differences in results and understand the underlying reasons.

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