LEARN Journal: Language Education and Acquisition Research Network
ISSN: 2630-0672 (Print) | ISSN: 2672-9431 (Online)
Volume: 16, No: 2, July – December 2023

Language Institute, Thammasat University
https://so04.tci-thaijo.org/index.php/LEARN/index

Use of VoiceThread for Reflective Speaking

Phanitphim Sojisirikul[a,*], Nawiya Chanchula[b]

[a] phanitphim.soj@kmutt.ac.th, School of Liberal Arts, King Mongkut's University of Technology Thonburi, Thailand
[b]nawiya.cha@mail.kmutt.ac.th, School of Liberal Arts, King Mongkut's University of Technology Thonburi, Thailand
[*]Corresponding author, phanitphim.soj@kmutt.ac.th

APA Citation:
Sojisirikul, P., & Chanchula, N. (2023). Use of VoiceThread for reflective speaking. *LEARN Journal: Language Education and Acquisition Research Network, 16*(2), 333-347.

Received
31/03/2023

Received in revised form
19/05/2023

Accepted
01/06/2023

ABSTRACT

Reflection in language learning plays a key role in promoting a deeper understanding of one's own learning. Previous studies show that reflective speaking could raise students' higher critical thinking, and that technology helps facilitate this reflection effectively. This study aimed to investigate the use of VoiceThread for a reflective speaking task for students. The participants consisted of 67 undergraduate students enrolled in an English course who were assigned to do four video recordings of their self-study. They found their own English materials to study and made their own choices of answering the five guided questions representing the four reflective levels. Only 156 video recordings from out of 39 students, who posted all four video recordings, were transcribed and analyzed. All 67 students did answer the questionnaire regarding their attitudes towards the use of VoiceThread. The findings show that the majority of the students' reflective level was at Level 1 (*Non-reflection*), and a few of their expressions were found at Level 3 (*Reflection*). The students also said they were confident when speaking, and VoiceThread helped facilitate their reflective speaking.

Keywords: VoiceThread, reflection, reflective speaking, levels of reflection

Introduction

Language curricula at most educational levels are being continuously redesigned in order to find an effective way to improve learners' language performance (Nunan & Bailey, 2009). Many attempts and methods have been tried. One implementation is to include a reflective writing task in a language course. Writing a reflection has become a common assignment at a university. It can be integrated into various aspects of the course, e.g., an assigned report or a self-study task. Reflective writing can also promote various soft skills such as higher levels of thinking, analyzing, synthesizing, evaluating, and life-long learning.

Within the context of the study, reflective writing comes in the form of explaining or reporting events throughout each student's self-study. It has been found, however, through years of study that students' abilities in expressing deep reflection are very low. Simple words or phrases as answers such as "study vocabulary" or "learn about grammar" to the guided question [Q: What did you study?] are often found. According to Moon (2004), such responses are characteristic of "surface-level reflection," which involves the recall of information or description of facts without critical evaluation or analysis (p. 5). Hatton and Smith (1995) explain that the use of descriptive writing in reporting events is characterized as the lowest level of reflection. To promote a higher level of reflective thinking, a dialogic reflection in which a student engages in a dialogue with himself or herself could be considered.

Dialogic reflection is "hearing one's own voice …" and through this type of reflection, it is argued that the student can move into a higher form of reflection known as critical reflection (Moussa-Inaty, 2015, p. 105). Nevertheless, in this study, the key term 'dialogic reflection' will be simplified as reflective speaking and has also been used to ease the constraints of the descriptive written reflection as mentioned above. For reflective speaking, VoiceThread has been chosen due to its nature as a slide show presentation that can help facilitate teaching and learning purposes.

Due to technological advancements in education, using videos for reflection has become an innovative alternative. It is also "a reflective practice technique in which video recordings, rather than one's own memory, are used as a basis for reflection and professional growth" (Wikipedia.org). A study of Due and Lange (2015) shows that critical thinking was promoted through video-based reflection. Tailab and March (2019) put forward the idea that video recordings for a reflective task can help develop students' confidence and reduce their anxiety. The aim of the study is, therefore, to promote a higher level of reflection in students through speaking by using VoiceThread.

VoiceThread and Reflection in Language Learning

In the 21st century, technology is playing an important role in teaching and learning (Partnership for 21st Century Skills, 2020). Technology has brought with it the advent of Web 2.0 tools that offer opportunities for teachers to connect and engage in communication with their students and for students to share their writing and voices with audiences beyond the walls of the classroom (Stover et al., 2015, pp. 341-342). To create a discussion area between writers and readers, many Web 2.0 tools allow blending images, texts, videos, audios, and so on. In this study, one such tool, VoiceThread, is selected since it allows writers and readers 'to engage with texts in multi-literate ways' (p. 342).

VoiceThread is a cloud application that works in any modern web browser. It enables users to create slides of their topic by uploading, sharing, and discussing documents, presentations, images, audios, and videos (Voicethread.com; Pansa & Sojisirikul, 2020). Johnson (2013) explains that through VoiceThread, a threaded discussion, users can leave both oral and written comments directly or insert multimedia into the discussion, making it much easier to engage than through a traditional discussion board. They can also make drawings in their multimedia via a feature known

as 'doodling' (p. 720). The selected image or video will be in the center, and when the users participate, their images will also appear around the left border.

VoiceThread brings new techniques to foreign language learning and provides students with new insights to explore functional uses of the target language (Lee, 2014, p. 338). With VoiceThread, students develop communicative language skills, have a more equal opportunity to contribute to the discussion, and have less anxiety as well as more confidence in expressing themselves, as opposed to when they are in traditional classroom settings (p. 338). When the 'immediate interaction is minimized, students who need additional time can thoughtfully develop and reflect on responses prior to posting comments' (Stover et al., 2015, p. 346). This supports the study of Lapadat (2002): there is a relationship between cognition and asynchronous writing in an online context.

As an instructional tool, VoiceThread promotes depth of response and higher thinking (Stover et al., 2015, p. 342). A study by McCormack (2010, p. 160) shows that VoiceThread helped improve university students' higher-order thinking and reflection. Another study by Lee (2014, p. 338) also puts forward the idea that digital news through VoiceThread not only developed students' self-reflection but also established a sense of community in which students supported each other by sharing new ideas and providing feedback on each other's writing. In addition, students gained multiliteracy skills and further improved their speaking fluency. Research findings also suggest that the teacher's guidance is crucial in facilitating critical reflection.

The value of reflection has been extensively perceived as an active form of learning through individual experiences (Wu & Looi, 2012, p. 339). Denton (2009) pointed out that "reflection represents the human capacity for higher-order thinking, specifically our ability to make connections between thoughts and ideas" (p. 838). According to Kolb's cyclical reflective model, the process of a learner's self-reflection increases their oral proficiency development (Kim, 2014, p. 27). This study, therefore, uses the term 'reflection' to represent different levels of reflection (Grossman, 2009) and aims to address levels of reflection and identify how those particular levels affect students' oral proficiency.

Levels of Reflection

There are a number of theorists proposing different levels of reflection for different purposes of teaching and learning. Surbeck et al. (1991) explained three levels of reflection: (1) *Reaction* - an initial response or report about class events; (2) *Elaboration* - an explanation or refinement of one's own first reactions referring to 'a general principle, a theory, or a broad philosophical context' (p. 26); and (3) *Contemplation* - an initial reaction combined with further elaboration, as well as thoughts about personal, professional, and ethical problems or moral concerns.

Hatton and Smith (1995) indicated four levels in the development of teacher reflection. They are: (1) *Descriptive writing* - description or report of events with no attempt to provide reasons; (2) *Descriptive reflection* - description with some evidence of reasons or rationales; (3) *Dialogic reflection* - a 'stepping back' from events showing an analysis or critique at different levels of discourse of self; and (4) *Critical reflection* - description located in and explicable by multiple perspectives but also located in and influenced by multiple historical and socio–political contexts.

Carroll (2010) presents six levels of learning reflection which are (1) *Zero* - focusing on oneself without awareness of their problem or contribution to it, (2) *Empathic* - being aware of some empathy for other person's perspective, (3) *Relational* - beginning to share the issues and see the relations or solutions of the issues or problems, (4) *Systemic* - ability to see the various small and large systems affecting our lives and behaviours, (5) *Self* - looking internally to articulate one's own patterns and themes, contributing to the way they engage in life and relationships, and (6) *Transcendental* - a higher or larger perspective, otherwise known as transpersonal or transcendent, that helps one make sense of their life and purpose.

From the above perspectives, it is obvious that there are three common views of levels of reflection. The initial level is the straightforward description of an event or oneself without an awareness of causality. The next level is reflection bringing some of one's responsibility or contribution into the shared space. The latter levels are more sophisticated reflections in which one is aware of their own contributions or engagements in life and relationships from multiple perspectives (Moon, 2004, p. 41).

On the other hand, Hatton and Smith (1995, p. 45) classify the three common levels of reflection as three reflective types: *Technical rationality*, *Reflection-on-action*, and *Reflection-in-action*. The first type is an interpretation in light of personal experiences. The second one includes a range of reflective levels, namely *Descriptive* (description of actions taken), *Dialogic* (voice for exploring alternatives to problems), and *Critical* (thought of effects due to ethical criteria). For the last type, it can be described as the contextualization of multiple perspectives.

In this study, the rationales for the common categorization of reflective levels and the use of dialogic reflection have been applied. However, the three simple reflective levels were redesigned to be four instead (Kember et al., 2008). They are: (i) *Non-reflection* - no evidence of an understanding of concept or theory; (ii) *Understanding* - evidence of an understanding of a concept or topic; (iii) *Reflection* - the application of theory to practical situations; and (iv) *Critical reflection* - evidence of a change in perspective over a fundamental belief or the understanding of a key concept or phenomenon that shapes lives and experiences (p. 379). Moreover, to promote a higher level of reflection, reflective speaking through the use of VoiceThread has also been investigated.

Research Questions

1. What are the levels of students' reflective speaking through the use of VoiceThread?
2. What are the students' perceptions towards reflective speaking tasks through VoiceThread?

Research Methodology

Participants

The participants of the study were 67 first-year undergraduate students who were studying a fundamental English course at a public university in Thailand. The course consisted of three credits and would last for 15 weeks. The outcomes of the course focused on developing basic knowledge of English, covering all four skills integrated through topics related to everyday English. The course also aimed at building a positive attitude in students towards life-long learning experiences by encouraging them to realize their own specific needs through performing tasks or assignments. Thus, classroom learning activities were combined with self-study concepts. Those 67 participants were from two classes that were conveniently selected among the five classes of students who registered for the fundamental English course. They were from various departments in various faculties of science and engineering. They also shared mixed abilities, and their language proficiency was mostly at the pre-intermediate level.

Research Instrument

Reflective Speaking of Self-study Task

As part of the course requirements, students were assigned a self-study task to find and practice English materials independently. During this task, students received guidance from the course instructor to enhance their learning process. During the semester, the students pursued their own learning at their own pace and according to their interests. After their study, they had to conduct a reflective speaking of their learning through VoiceThread. Each student was responsible

for posting four video recordings of their reflections before the semester ended, with the expectation that one video should be posted per month. A purposive sampling technique was employed in selecting 39 students out of 67 who had posted all four video recordings. Thus, there were a total of 156 video recordings from 39 students, and each recording lasted around one or two minutes.

To produce a reflective video recording, five guided questions representing four levels of reflection were delivered (Maneewong & Sojisirikul, 2020). The students had also made their own choices about what questions they would like to work on. The questions were as follows:

Table 1

Questions and the Four-category Scheme for Levels of Reflection (adapted from Kimber et al., 2008)

Guided question	Level of reflection
What have you learned or studied?	1 Non-reflection
Why did you decide to study this book or this material?	2 Understanding
What comments would you make about yourself in terms of being an English language learner?	3 Reflection
What was the hardest part you encountered when you worked on this self-study, and how did you overcome it?	
What would you do to improve or change your next piece of work?	4 Critical reflection

Questionnaire

The questionnaire was piloted and administered at the end of the course after the implementation of VoiceThread, and the data was collected from 67 students. The questionnaire was divided into two main parts. Part I investigated the students' attitudes towards the use of VoiceThread. For Part I, there were 27 questions tackling three main issues: the affordances of VoiceThread, confidence in speaking, and learning skills from reflective practice. The students were asked to rate their attitudes using a five-point rating scale, i.e., 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, and 1 = strongly disagree. Part II of the questionnaire was open-ended and called for suggestions addressing their comments using VoiceThread.

Data Analysis

The research instruments were analyzed both qualitatively and quantitatively. For reflective speaking through the use of VoiceThread, students' levels of reflection were coded following the four-category scheme, which consisted of: *Non-reflection* (Level 1), *Understanding* (Level 2), *Reflection* (Level 3), and *Critical reflection* (Level 4). Based on the content, the reflective levels were counted and presented by percentage. Regarding the issue of inter-rater reliability, three coders were also used to address the consistency of the rating system.

Depending on the data from the questionnaire, it will be used to substantiate the findings of the levels of reflection, particularly what aspects the use of VoiceThread was able to facilitate during the process of the reflective practice. Part I of the questionnaire concerned the subject's opinions towards the use of VoiceThread for their reflective speaking. The questions were given a five-rating scale format, and the data was calculated using arithmetic means ($\overline{X}$) and then interpreted as follows:

Table 2

Criteria for Rating-scale Interpretation

Mean ($\overline{X}$)	Interpretation
4.20 - 5	Strongly agree
3.40 - 4.19	Agree
2.60 - 3.39	Neutral
1.80 - 2.59	Disagree
1 - 1.79	Strongly disagree

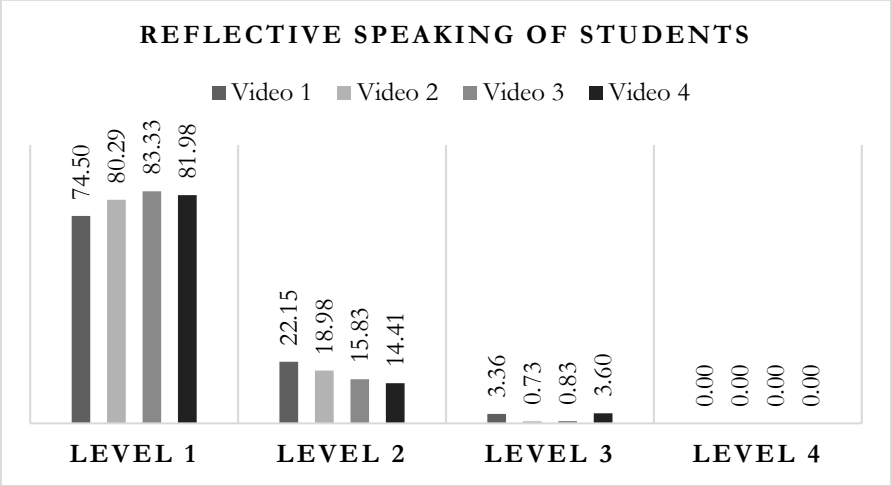
Part II of the questionnaire was open-ended and was the part in which the participants could provide any suggestions or comments. The responses obtained were collected and then grouped into main themes. The number of participants who had the same ideas was also counted.

Findings

It was the purpose of this study to find out the levels of students' reflective speaking and their perceptions towards the use of VoiceThread. Two kinds of data—156 video recordings of 39 selected students and questionnaires of all 67 students—were used to yield such findings. According to the data based on students' reflective levels, it was found that a majority of the students were at the *Non-reflection* level (Level 1), and none of them were at the *Critical reflection* level (Level 4) (see Figure 1).

Figure 1

Reflective Speaking of Students



The graph above shows that the tendency for the students' reflective levels across four video recordings was similar and remained almost unchanged. For individual video recordings, the percentage was found mostly at the levels of *Non-reflection* (Level 1), *Understanding* (Level 2), and *Reflection* (Level 3), in descending order. More specifically, the average figures for those individual levels were 80.03%, 17.84%, and 2.13%, respectively. There was no percentage found at the level of *Critical reflection* (Level 4). This illustrates that the students' abilities were to mainly report or describe the events of what they had learned since it might be easier and more obvious to simply describe the factual knowledge they had gained. The students could not deeply express their thoughts and feelings about their learning. In other words, the students knew *what* but did not seem to realize the *how* and *why* of their learning.

The findings also revealed most of the students' reflections fell into the category of *Non-reflection* (Level 1), especially in videos 3 and 4. This might be due to the fact that the students likely rushed to submit their last two videos around the end of the semester and, as a result, did not have much time to reflect on a deeper level. However, a few reflections (3.60%) that were found in their 4th video were considered deep *Reflection* (Level 3). This conveyed, to some extent, that thinking about one's own learning helped improve their learning. When the students were provided a number of chances to review their own learning, some of them were able to analyze their problems, find an appropriate solution, or even plan for their future practice. It could be said that if the reflective skills had been nurtured, the life-long learning skills could also be partly promoted through this reflective practice.

Even though the findings from the reflective video recordings revealed that most students' reflections were at the level of *Non-reflection* (Level 1), the data from the questionnaire (see the appendix A) indicated that students' attitudes towards the use of VoiceThread were positive. The findings showed that the students found VoiceThread to be beneficial in all three main areas: affordances of VoiceThread, confidence in speaking, and learning skills from reflective practice. Table 3 displays the selected items that were rated highly in those three main areas. Only the highly rated items were presented, as these were deemed significant based on the responses of the majority of participants.

Table 3

Students' Attitudes towards the Use of VoiceThread for their Reflective Speaking

	Means	**SD**
Affordances of the VoiceThread		
- VoiceThread is easy to use.	4.00	0.65
- I understand the functions of VoiceThread.	3.85	0.72
- VoiceThread is compatible with my devices.	3.75	0.95
Confidence in speaking		
- I prepare the script for my speaking before recording the video.	4.22	0.75
- I have rehearsed my speaking several times before recording the video.	4.21	0.68
- I have more confidence in speaking.	4.21	0.59
Learning skills from reflective practice		
- I have improved my speaking by watching the video recordings of my friends.	4.39	0.85
- I have realized my own strengths and weaknesses in speaking when I watch my own video recordings.	4.28	0.73
- I have found ways to improve my speaking.	4.24	0.69

Table 3 revealed that the students rated highly on some aspects of their attitudes towards the use of VoiceThread. For the affordances of VoiceThread, although it was a cloud application, the students still found that it was quick to access and upload files. In sum, VoiceThread was user-friendly and compatible with their devices—mobile devices and desktop computers—and also worked well with other applications for video recordings and photo editing. The students agreed it was an appropriate application for them to practice reflective speaking. For the two other areas that touched on students' language learning, the students rated VoiceThread highly and commented that VoiceThread helped raise their confidence in not only speaking English but also other life skills.

During the preparation stages, the students said they spent a great deal of time preparing what to say. When they had to reflect on what they had learned from English material, they had to write the script and practice their speaking many times until they could memorize the content and feel they were fluent enough. When they were ready, they recorded their videos. For videos 3 and 4, some students, however, mentioned they could now record their reflective videos without any rehearsals. They said that at this time they were confident. This showed that even though the

levels of some students' reflections did not reach a high level by videos 3 and 4, their confidence in speaking was meaningfully raised.

For the last area, most students agreed positively to the use of VoiceThread, resulting in the improvement of their speaking and other life skills. From the findings, the students agreed they had learned a number of life lessons through the reflective speaking tasks. Due to the functions of VoiceThread, where all videos of a user were presented in a thread and all comments could be viewed by all parties, the students had learned to improve their speaking performance through these particular functions. Watching their friends' videos and comments meant analyzing and gradually improving one's own learning. It could then be said that when the process of reflective practice was repeated four times, their awareness of critical thinking, which could be applied to lifelong learning to a certain extent, had significantly been raised.

Discussions and Implications

According to the aims of the study, which were to find out the students' reflective levels and their attitudes towards the use of VoiceThread in the reflective task, the findings showed that the students were only able to report or describe the factual knowledge of their self-study. In other words, the level of their reflection was low, at *Non-reflection* (Level 1). However, the findings also revealed that the students showed positive attitudes towards VoiceThread. This brings in the three main issues of the following discussion as well as implications for language teaching and learning, i.e., support and training for the reflective task, awareness-raising of life-long learning skills, and confidence-raising in speaking.

Support and Training for the Reflective Task

In terms of the findings, while higher reflective levels among students were not successfully raised, it could not be said that the students were unable to reflect on their own learning. The study indicated that pre-intermediate students, to some extent, could describe what they had learned. Another study found similar results: promoting deep reflection among military cadets was disappointing (Gustafson & Bennett, 2002). The study, however, proposed that there were three areas of variables that the teacher should reconsider to enhance their instructional design in order to promote learners' reflection. One of them, which shed light on this study, was *Reflection Task Characteristics*. This generally addressed two main concepts for improving the reflective process: the nature of the stimulus questions or probes and the quality of the feedback.

Obviously, the type of guidance given will impact the quality of reflection (Gustafson & Bennett, 2002). For the benefits of promoting reflection more effectively, the teacher should initially provide some basic guidance for students' reflections in order to help them shape their thinking and behavior. For instance, to provide additional guidelines for a *Critical reflection* (Level 4), the guided questions could possibly be *"What are you going to do as a result of your experiences? What will you do differently? How will you apply what you learned?"*, etc. According to Dewey (1993), reflection is the process of thinking over a prolonged period of time while relating recent events to prior ones in an effort to develop a more complicated and connected mental model. In order to think, one must explore beyond the obvious similarities, distinctions, and connections. The objective is to improve higher-order cognitive abilities.

Moreover, extending feedback might have had even more powerful effects. Granted, providing probes may cause the learner to continue to think more about the topic. For instance, from *Understanding* (Level 2) to higher levels, one of the probes might be, *"Have you thought about what language skills you do better at and how you know this?"* But by pointing forth other options, one may also encourage more thought regarding connections between previously unconsidered factors: *"What is another factor you might consider to help you improve your learning? But what if the particular alternative does not work?"* Although such suggestions may be made in writing, they are generally most effective when utilized in conversation with others (Hatton & Smith, 1995). The best way to encourage

reflection through feedback is generally to have a conversation with one or more students about the work they have submitted. However, unless it is computer-mediated in some fashion, the practicalities of doing so and having discussion leaders who are knowledgeable about the subject and have good interpersonal skills may be beyond the capabilities of the system to provide.

Above all, no matter how well questioning techniques or feedback-giving methods have been implemented, training on how to produce an effective reflection also needs to be delivered. If the process of completing a reflective task had been well piloted by the learners themselves, the levels of reflection, to a certain extent, might have been higher. After all, reflective assignments are different from standard essays (Akbari, 2007). It is an action that is founded on the active, persistent, and deliberate study of any belief or asserted form of knowledge in light of the justifications for it (Dewey, 1993). According to this definition, a reflective learner is one who evaluates their activities critically and develops suggestions for how to enhance them in order to further their own learning.

As is known, written reflections have been extensively used by faculties from different disciplines as a tool to extend classroom learning, develop writing skills, and promote critical thinking (Dantas-Whitney, 2002). On the contrary, spoken reflections have not been as widely used but have gained some recognition in recent years (Gough & Wedum, 2000). In addition to fostering oral communication skills, the use of spoken reflections can allow for more spontaneity and free expression on the part of the learner since oral language is not bound by the same strict rules of coherence and cohesion as written discourse. However, only a few studies to date have investigated the use of spoken reflection as a tool for critical reflection. Research on the use of this innovative instructional technique can provide new insights for effective teaching in a variety of contexts.

Awareness Raising of Life-long Learning Skills

The findings of the study indicate that the use of VoiceThread for reflective speaking provided a decent medium for students to report or describe the factual knowledge of their self-study. However, the levels of their reflection were low, indicating a need for further exploration of ways to promote higher levels of reflection (Level 2 or above). Despite this, the students exhibited positive attitudes towards the use of VoiceThread, indicating its potential as a tool to raise awareness of lifelong learning skills.

One way in which VoiceThread can be used to promote lifelong learning skills is by encouraging students to engage in self-reflection. Reflection is an essential component of lifelong learning, as it allows individuals to evaluate their own learning and identify areas for improvement (Boud et al., 1985). By using VoiceThread to document their reflections, students can revisit their previous thoughts and ideas, track their progress, and identify patterns in their learning. This process not only enhances their self-awareness but also encourages them to take ownership of their learning and become more self-directed learners (Wenden & Rubin, 1987).

Another way in which VoiceThread can promote lifelong learning skills is through facilitating collaboration and communication among students. Collaboration and communication are essential skills for lifelong learning, as they enable individuals to share knowledge, exchange ideas, and learn from one another (Bereiter & Scardamalia, 1993). By using VoiceThread to create and share their reflections, students can engage in meaningful discussions and receive feedback from their peers, which can deepen their understanding and enhance their learning (Vygotsky, 1978).

As considered, while the use of VoiceThread for reflective speaking may not necessarily lead to high-level reflection, its positive impact on students' attitudes towards learning and the self-reported factual knowledge of their self-study both highlight its potential as a tool for raising awareness of life-long learning skills. By leveraging the positive attitudes of students towards VoiceThread, educators can encourage learners to become more self-directed and collaborative, thus promoting life-long learning skills that will be valuable both in and beyond the language

classroom. Last but not least, while the current study only explored the use of VoiceThread for reflective speaking, future research could investigate other ways in which this tool can be used to enhance language learning and promote lifelong learning skills.

Confidence Raising in Speaking

The use of VoiceThread for reflective speaking can also play a significant role in raising students' confidence in speaking. As indicated by the findings of this study, students have reported feeling more confident in speaking due to their use of VoiceThread. This is in line with previous research that has highlighted the role of technology in facilitating language learning and building confidence in speaking (Mak & Coniam, 2008).

One way in which VoiceThread has helped raise students' confidence in speaking is by providing them with a low-stakes environment for speaking practice. Speaking in front of others can be daunting, especially for language learners who may lack confidence in their speaking abilities (Matsuda & Gobel, 2004). However, the use of VoiceThread allows students to practice their speaking skills in a safe and non-threatening environment. As noted by Arao and Clemens (2013), "a sense of safety and security is crucial for students to be able to take risks and be vulnerable" (p. 132). When students feel comfortable and safe, they are more likely to take risks and speak more confidently.

Moreover, VoiceThread allows students to record and share their reflections asynchronously, giving them time to prepare their thoughts and practice their speaking skills without the added pressure of a live audience (Lai & Hong, 2016). This is particularly beneficial for students who are less confident in their speaking abilities, as it allows them to take their time and think about what they want to say before recording their responses. As noted by Chen (2017), "the non-synchronous nature of VoiceThread allows students to practice their speaking skills without the anxiety of performing in real-time" (p. 51). Without the pressure of speaking in real-time, VoiceThread, therefore, can help students build their confidence and improve their speaking skills at their own pace.

In addition to providing a low-stakes environment for speaking practice, VoiceThread can also facilitate peer feedback and collaboration, which can further enhance students' confidence in speaking. Through VoiceThread, students can receive feedback on their speaking from their peers, which can help them identify areas for improvement and build on their confidence (Hyland & Hyland, 2006). Moreover, VoiceThread facilitates collaborative learning by allowing students to work together to solve problems, share knowledge, and learn from one another (Garrison et al., 2000). This collaborative learning environment can then foster a sense of community among learners, further enhancing their motivation and confidence in speaking (Dörnyei, 2001).

Limitations of the Study

The study's potential limitations are thus presented. As can be seen, the participants in the study were individuals who registered for the same basic English course. In other words, they were all at roughly the same pre-intermediate language level as one another. This might have had an impact on the students' capacity for reflective speech. More courses or more different groups of students should be included in order to confirm whether the levels of reflection differ according to the students' language proficiency. The guided questions for the reflective tasks must also be well-prepared enough to fit the situation if more proficient students create higher levels of reflection.

Additionally, as one of the purposes of the study focused on students' opinions on VoiceThread usage, the results show that this application has had a favorable effect on the students' English-speaking abilities; the majority of them stated that they spoke more confidently and with more fluency. However, more data from which the students' perceptions were sought should have been drawn in a variety of ways to demonstrate how exactly the application helps

them gain confidence and improve their speaking skills. A verbal explanation or reason would provide more insights and more support for the quantitative questionnaire results and might also possibly offer some new information for future research, particularly in the pedagogical area.

Conclusion

In summary, the study has shed light on the use of VoiceThread to promote reflective speaking in language learning. While the findings showed that students' reflective levels were low, the positive attitudes towards VoiceThread highlight its potential as a valuable tool in language learning contexts. As discussed, there is a need for support and training to develop students' reflective skills, raise their awareness of life-long learning skills, and increase their confidence in speaking. Therefore, future research should focus on designing more effective reflective tasks that promote higher levels of reflection as well as investigating the impact of VoiceThread on long-term language learning outcomes. By understanding the potential of technology-enhanced language learning environments like VoiceThread, language educators can develop innovative and effective teaching practices that meet the needs of today's language learners. Overall, this study contributes to the ongoing conversation about the role of technology in language learning and the importance of promoting reflective practice in language education.

About the Authors

Phanitphim Sojisirikul: A distinguished English lecturer at King Mongkut's University of Technology Thonburi (KMUTT), Thailand. With a passion for language education, she focuses on innovative approaches and methodologies, curriculum development, language awareness, and ICT integration in language teaching. Her expertise and research contribute to the academic community's advancement of language education.

Nawiya Chanchula: A full-time lecturer in the Language Studies Department, School of Liberal Arts, King Mongkut's University of Technology Thonburi, Thailand. She received an M.A. (Applied Linguistics) from Mahidol University. Her areas of research interests include English language teaching and learning, task-based language teaching and learning, and teaching English as a second or foreign language.

References

Akbari, R. (2007). Reflections on reflection: A critical appraisal of reflective practice in L2 teacher education. *System*, *35*(2), 192-207.

Arao, B., & Clemens, K. (2013). From safe spaces to brave spaces: A new way to frame dialogue around diversity and social justice. In L. Landreman (Ed.), *The art of effective facilitation: Reflections from social justice educators* (pp. 135-150). Stylus Publishing, LLC.

Bereiter, C., & Scardamalia, M. (1993). *Surpassing ourselves: An inquiry into the nature and implications of expertise*. Open Court.

Boud, D., Keogh, R., & Walker, D. (1985). What is reflection in learning? In F. Marton, D. Hounsell, & N. Entwistle (Eds.), *The experience of learning* (pp. 19-32). Scottish Academic Press.

Carroll, M. (2010). Levels of reflection: On learning reflection. *Psychotherapy in Australia*, *16*(2), 24-31.

Chen, Y. (2017). The use of VoiceThread for improving EFL learners' oral proficiency and motivation. *Journal of Asia TEFL*, *14*(1), 49-61.

Dantas-Whitney, M. (2002). Critical reflection in the second language classroom through audiotaped journals. *System*, *30*(4), 543-555.

Denton, D. (2009). Reflection and learning: Characteristics, obstacles, and implications. *Educational Philosophy and Theory*, *43*(8), 838-852.

Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educative process*. D.C. Heath.

Dörnyei, Z. (2001). *Teaching and researching motivation*. Pearson Education.

Due, B. L., & Lange, S. B. (2015). Video-based reflection on team interaction (The ViRTI-method). *CIRCD Working Papers in Social Interaction*, *1*(3), 1-38.

Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *Internet and Higher Education*, *2*(2-3), 87-105.

Gough, M., & Wedum, M. K. (2000). Audio diaries in listening/speaking classes. Paper presented at the *34th Annual TESOL Convention, Vancouver, BC.*

Grossman, R. (2009). Structures for facilitating student reflection. *College Teaching*, *57*(1), 15-22. https://doi.org/10.3200/CTCH.57.1.15-22

Gustafson, K., & Bennett, W. (2002). *Promoting learner reflection: Issues and difficulties emerging from a three-year study*. (Report No. AFRL-HE-AZ-TR-2002-0219). Air Force Research Laboratory. https://apps.dtic.mil/sti/pdfs/ADA472616.pdf

Hatton, N., & Smith, D. (1995). Reflection in teacher education: Towards definition and implementation. *Teaching and Teacher Education, 11*(1), 33-49.

Hyland, K., & Hyland, F. (2006). *Feedback in second language writing: Contexts and issues*. Cambridge University Press.

Johnson, J. M. (2013). Facilitating a structured controversy using VoiceThread. *Journal of Nursing Education*, *52*(12). 720-721.

Kember, D., McKay, J., Sinclair, K., & Wong, F. K. Y. (2008). A four-category scheme for coding and assessing the level of reflection in written work. *Assessment & Evaluation in Higher Education*, *33*(4), 363-379.

Kim, S. (2014). Developing autonomous learning for oral proficiency using digital storytelling. *Language Learning and Technology, 18*(2), 20-35.

Lai, C., & Hong, J. C. (2016). Technology-enabled collaborative learning: A research synthesis and implications for practice. *Educational Research Review*, *17*, 1-16.

Lapadat, J. C. (2002). Written interaction: A key component in online learning. *Journal of Computer Mediated Communication*, *7*(4). https://doi.org/10.1111/j.1083-6101.2002.tb00158.x

Lee, L. (2014). Digital news stories: Building language learners' content knowledge and speaking skills. *Foreign Language Annals*, *47*(2), 338-356.

McCormack, V. (2010). Increasing teacher candidate responses through the application of VoiceThread. *International Journal of Arts and Sciences*, *3*(11), 160-165.

Mak, B., & Coniam, D. (2008). Using wikis to enhance and develop writing skills among secondary school students in Hong Kong. *System*, *36*(3), 437-455.

Maneewong, K., & Sojisirikul, P. (2020). Students' reflection levels in video recordings posted on Facebook. In T. Kok Eng, L. Lai Mei, & W. Jaroongkhongdach (Eds.), *ICT use in ELT: Some examples from South East Asia* (pp. 115-135). Penerbit Universiti Sains Malaysia.

Matsuda, P. K., & Gobel, P. (2004). Anxiety and predictors of performance in the foreign language classroom. *System*, *32*(1), 21-36.

Moon, J. A. (2004). *A Handbook of reflective and experiential learning: Theory and practice*. Routledge.

Moussa-Inaty, J. (2015). Reflective writing through the use of guiding questions. *International Journal of Teaching and Learning in Higher Education, 27*(1), 104-113.

Nunan, D., & Bailey, K. M. (2009). *Exploring second language classroom research: A comprehensive guide*. Heinle, Cengage Learning.

Pansa, D., & Sojisirikul, P. (2020). Improvement of students' speaking abilities through teacher feedback on VoiceThread. In T. Kok Eng, L. Lai Mei, & W. Jaroongkhongdach (Eds.),

ICT use in ELT: Some examples from South East Asia (pp. 43-61). Penerbit Universiti Sains Malaysia.

Partnership for 21st Century Skills. (2020). P21 framework definitions. https://files.eric.ed.gov/fulltext/ED519462.pdf

Stover, K., Kissel, B., Wood, K., & Putman, M. (2015). Examining literacy teachers' perceptions of the use of VoiceThread in an elementary, middle school, and a high school classroom for enhancing instructional goals. *Literacy Research and Instruction*, *54*(4), 341-362.

Surbeck, E., Eunhye, P., & Moyer, J. (1991). Assessing reflective responses in journals. *Education Leadership*, *48*(6), 25-27.

Tailab, M. M. K., & Marsh, N. Y. (2019). Use of self-assessment of video recordings to raise students' awareness of development of their oral presentation skills. *Higher Education Studies*, *10*(1), 16-28.

Video-based reflection. (2020, November 2). In *Wikipedia*. https://en.wikipedia.org/wiki/Video-based_reflection

VoiceThread. (2020, November 2). *Communicate, collaborate and connect*. https://voicethread.com/about/features/#feature-voicethread

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Wenden, A., & Rubin, J. (1987). *Learner strategies in language learning*. Prentice Hall.

Wu, L., & Looi, C. K. (2012). Agent prompts: Scaffolding for productive reflection in an intelligent learning environment. *Journal of Educational Technology & Society*, *15*(1), 339-353.

Appendix A

Analysis of Students' Attitudes towards the Use of VoiceThread for Reflective Speaking

	Means	SD
Affordances of VoiceThread		
1. VoiceThread is easy to use.	4.00	0.65
2. I understand the functions of VoiceThread.	3.85	0.72
3. I could record the video through VoiceThread.	3.46	0.87
4. I have no problem working on VoiceThread.	3.49	0.92
5. VoiceThread is compatible with my devices.	3.75	0.95
6. Practicing speaking through VoiceThread is better than having a conversation with the teacher.	3.52	0.94
7. Practicing speaking through VoiceThread is better than having a conversation with my friends.	3.69	0.95
8. Working on VoiceThread is fun.	3.66	0.84
Confidence in speaking		
9. I prepare the script for my speaking before recording the video.	4.22	0.75
10. I have rehearsed my speaking several times before recording the video.	4.21	0.68
11. While recording the video, I read along with the script.	3.39	0.99
12. I have more confidence in speaking.	4.21	0.59
13. I edit my video before posting it on VoiceThread.	3.51	1.07
14. I like to watch myself in VoiceThread.	3.57	0.98
15. I am worried about my image on VoiceThread.	3.64	0.86
16. I am concerned about myself as long as my videos are on VoiceThread.	3.60	0.92
17. I feel reluctant to let my friends see my video recording.	3.39	0.96
Learning skills from reflective practice		
18. I have realized my own strengths and weaknesses in speaking when I watch my own video recordings.	4.28	0.73
19. I have learned what to say and how to speak when I watch my own video recordings.	4.19	0.70
20. I have improved my speaking through my mistakes.	4.04	0.90
21. I can deeply reflect on what I have learned through speaking.	4.07	0.68

22. I have improved my speaking by watching the video recordings of my friends.	4.39	0.85
23. I have improved my speaking by reading my friends' comments.	3.84	0.80
24. I have improved my speaking by reading my teacher's comments.	4.00	0.73
25. I have found ways to improve my speaking.	4.24	0.69
26. Watching my own video recordings is the best way to practice my speaking.	3.94	0.67
27. This reflective task has provided opportunities to use English in real-life situations.	4.04	0.63