



# Blending a class video blog to optimize student learning outcomes in higher education

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## ABSTRACT

This exploratory study investigates whether blending a class video blog into face-to-face instruction may simultaneously enhance university students' actual learning performance and affective outcome. Research as to the effects of such a pedagogical approach remains less studied in the extant literature. This yearlong investigation collects multiple data sources from 42 university freshmen in an experimental group (EG,  $N = 21$ ) and a control group (CG,  $N = 21$ ). Results indicate that the EG statistically outperforms the CG in oral proficiency development after the interventions. While there is no significant difference between the two groups in terms of overall and outside-class willingness to communicate in the target language, it appears that the CG perceives more in-class willingness at the end of this study. Qualitative data sources reveal the EG's positive attitude toward joining this shared blog platform and several concerns raised by some of these learners during the learning process.

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## 1. Introduction

The ultimate goal of educational change in school education is to enhance student learning outcomes (Fullan, 2007). With the advent of new considerations in instructional design and implementation, a multitude of emerging Web 2.0 technology applications enable ubiquitous features to support teaching and learning (De Wever, Härmäläinen, Voet, & Gielen, 2015; Hsu, Ching, & Grabowski, 2014; Means, 2010). Means (2010) stressed that "how to implement technology in ways that produce student learning gains is integral to efforts to use technology as a lever for education change" (p. 287). Echoing the above standpoint, researchers and practitioners have envisioned the potential of blogs, one of the most widely adopted Internet-facilitated tools, to play both pedagogical and social roles in higher education settings (Deng & Yuen, 2009; Tess, 2013).

A bank of empirical studies has been conducted to document the impact of blogging on student learning experience primarily with respect to performance and/or affective outcomes (Lee & Bonk, 2016; Sim & Hew, 2010). Some researches on performance outcomes generally covered issues relevant to fostering reflection, critical thinking, and knowledge construction among learners. Other researches into affective aspects revealed learner attitudes/perceptions, learning engagement, and a sense of community in blog-based learning environments. Most of these studies employed textual blogging in various courses (e.g., Tang & Lam, 2014; Yang & Chang, 2012, among others) or teacher education programs (e.g., Chou, 2011; Pavo & Rodrigo, 2015, among others). While a few researchers have started to infuse audio or video blogs into language education (e.g., Hung, 2011; Shih, 2010; Sun, 2012), the

major focus of these investigations was to create additional opportunities for oral practice among undergraduate learners outside class meetings. In the past decade, researchers tended to conclude the promising implementation of blog-enhanced pedagogies by typically replying on self-reported questionnaires or interviews. A paucity of empirical studies employed an assessment mechanism to provide more evidence when documenting students' actual performance outcomes (Lee & Bonk, 2016; Osman & Koh, 2012; Sim & Hew, 2010). Furthermore, when investigating the effects of blogging on learning performance, previous researchers mostly documented the same class(es) of students' self-perceived experiences instead of comparing their achievement outcomes with those of students mainly receiving in-class instruction (Golonka, Bowles, Frank, Richardson, & Freynik, 2014; Sim & Hew, 2010).

To fill the literature gap, the overall purpose of this yearlong study is to explore the effects of blending a class video blog into optimizing undergraduate students' learning outcomes in a case course (i.e., oral training course). The exploration in particular reveals whether these students partaking in this blog-enriched instructional module may outperform other students without video blogging experience in the development of their speech proficiency and willingness to communicate (WTC) in the target language. Also included is how these students perceive their video blogging experience. Such an investigation not only counts on the participants' self-reported data but also refers to an oral proficiency test to assess their learning achievement. The following research questions are addressed:

1. Do undergraduate students who engage in class-based video blogging show a higher level of speech performance than students who do not?

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2. Are these students with video blogging experience more willing to communicate in the target language than are their counterparts?
3. How do these students perceive this video blogging experience?

## 2. Related literature

As previously noted, educational researchers implemented blog pedagogy to enhance performance outcomes, affective outcomes, or both aspects. This section will expand [Sim and Hew's \(2010\)](#) literature review by covering the empirical studies on employing textual blogging and audio/video blogging in higher education. The essence of methodology or findings derived from these studies, merits or limitations, will serve as the baseline information to which this research may refer.

### 2.1. Textual blogging for enhancing learning outcomes

Previous studies drawing conclusions from self-reported data (e.g., surveys/questionnaires, individual interviews, and/or focus group interviews) recommended the effects of textual blogging experience on student learning outcomes. Some researchers tended to focus on issues in relation to learning performance (e.g., [Ching, 2012](#); [Chou, 2011](#); [de Andrés Martínez, 2012](#); [Goktas & Demirel, 2012](#); [Halic, Lee, Paulus, & Spence, 2010](#); [Hramiak, Boulton, & Irwin, 2009](#); [Mansor, 2011](#); [Tang & Lam, 2014](#)). For instance, [Halic et al. \(2010\)](#) significantly promoted students' reflective thinking and enhanced their understanding of subject matter knowledge when blending personal blogs with face-to-face instruction. Similar findings were depicted in teacher education research using blogs to assist preservice teachers' professional development and field practice ([Chou, 2011](#); [Hramiak et al., 2009](#)). Integrating tutor and learner blogs, [Goktas and Demirel \(2012\)](#) delivered computer course content to prospective teachers who were grouped into different teams managing individual blogs to present their learning tasks or assignments. These blogs provided opportunities for the participants to practice applying contemporary technologies, gain real experience, and support future classroom practice. In a class blog, students of [Mansor \(2011\)](#) developed their expression of thoughts, learned and shared each other's knowledge, and boosted their understanding of concepts that they learned in class. [Tang and Lam \(2014\)](#) built an effective online learning community using a class blog that fulfilled the design objectives of teaching portfolios. The students' active participation and high quality interaction made their learning process meaningful and sustainable. When incorporating class blogs into face-to-face language instruction, [de Andrés Martínez \(2012\)](#) fostered Spanish learners to use technology-enhanced strategies to collaborate with peers, cultivate learner autonomy, and further develop metacognition, while [Ching \(2012\)](#) created cooperative learning opportunities among peers during blog discussions that hence contributed to learners' business English vocabulary learning.

Another strand of studies specifically attended to learners' perceived affective aspects (e.g., [Cakir, 2013](#); [Garcia, Brown, & Elbeltagi, 2013](#); [Miceli, Murray, & Kennedy, 2010](#); [Pardamean & Susanto, 2012](#); [Yang & Chang, 2012](#)). [Yang and Chang \(2012\)](#) found that interactive personal blogs had a greater impact on learning engagement than did isolated blogs among a class of students. However, these participants showed positive motivation to learn from peer work, regardless of whether the blogs were interactive or solitary. [Cakir \(2013\)](#) examined factors affecting student engagement in a pre-service teacher education program employing personal blogs to expand in-class discussions about technology integration. It was found that student motivation, reasons to use blogs, and the level of challenges determined students' engagement in blog use. [Miceli et al. \(2010\)](#) revealed that blogs played a significant role in promoting language learners' participation and interaction which further nurtured a sense of class community. Assessing user acceptance toward blog technology, [Pardamean and Susanto \(2012\)](#) stressed that social influence and performance expectancy had significant relationship with behavioral patterns, while effort expectancy did

not. There was no significant relationship between behavioral intention and actual use, due to a low interaction level among students on the blog. [Garcia et al. \(2013\)](#) tested connectivism as a learning theory for using a collective blog model from both staff's and students' perspectives. The findings showed that the creation of a blog network only appeared to occur fully when students were actively engaged and willing to learn.

The other school of researchers depicted the impact of textual blogging on both performance and affective outcomes in a single study (e.g., [Goktas & Demirel, 2012](#); [Kang, Bonk, & Kim, 2011](#); [Lee & Bonk, 2016](#); [Xie, Ke, & Sharma, 2010](#); [Yang, 2009](#)). [Kang et al. \(2011\)](#) blended tutor and individual blogs with off-line classes that helped reconceptualize students' values of collaboration and networks, and this pedagogy in turn enhanced the participants' reflection and knowledge sharing. [Xie et al. \(2010\)](#) reported the effects of two different blog leader styles on the quality and quantity of student posts and peer feedback; those styles influenced the development of students' deep thinking accordingly. In the teacher training field, [Goktas and Demirel \(2012\)](#) found that the participating prospective teachers perceived using personal blogs as an important tool both to change their perceptions of Information and Communication Technology (ICT) in a positive way and to familiarize them with infusing relevant technology. Very recently, [Lee and Bonk \(2016\)](#) employed personal blogs to promote inservice teachers' critical reflections on ICT application in a graduate course. The findings showed that blogs positively contributed to students' emotional closeness with peers and that peer relationship became intense after the online interaction and knowledge construction. Yet, student teachers of [Yang \(2009\)](#) had a lower level of knowledge construction in that they mostly posted descriptive rather than critical reflection entries on a class blog, despite their active engagement in online interaction and discussion.

In the extant literature, a few empirical studies have attempted not to solely rely on self-reported data but to further employ other data sources (e.g., exams/tests, coding results of posted assignments, or assignment evaluation scores) when discussing the potential of textual blogging with respect to performance and/or affective outcomes (e.g., [Arslan, 2014](#); [Bae, 2011](#); [Ellison & Wu, 2008](#); [Harland & Wondra, 2011](#); [Kitchakarn, 2012](#); [Xie, Ke, & Sharma, 2008](#)). For example, [Xie et al. \(2008\)](#) investigated blog-based journaling experience in an experimental group receiving peer and instructor feedback and a control group without exchanging any feedback with others. Two sample journals were coded and the results showed that statistically the experimental group performed lower level of reflection than its counterpart. The failure of this experiment may be attributed to the poor quality of peer feedback in paired blogs managed by individual learners. Referring to the analysis of summary writing tests and a questionnaire, [Kitchakarn \(2012\)](#) found that language learners improved their writing competence in a blog-enhanced learning environment. Students kept preferable attitude toward writing practice in personal blogs because doing so made learning relaxing and increased their motivation to write more freely. Furthermore, [Harland and Wondra \(2011\)](#) employed an experimental-type design by coding the depth of preservice teachers' reflection on clinical experiences in two groups receiving different treatments. Four categories of reflection (from the non-reflective level to the highest level) were analyzed, including descriptive, understanding, reflection, and critical reflection. In comparison with the traditional group using paper-based reflective reports, those participants completing blogs showed higher levels of reflection in their writing. [Arslan \(2014\)](#) investigated two groups of prospective English teachers' writing processes via either personal blogs or paper-based portfolios. As revealed in surveys and an analysis of participants' essays, both groups significantly improved their writing skills and competence. Without comparing the two groups' performance, the author concluded that the participants held positive views of both portfolio keeping and blogging as effective tools in this writing task.

Ellison and Wu (2008) administered a survey, interviews, and an exam to investigate the effectiveness of a class blog on college students' comprehension of learning materials and perceptions. Students in the same class submitted writing assignment either as traditional hard copies or as blog entries. No significant differences in students' comprehension were found between these two learning modules. Based on the exam results, specific comprehension gains were not associated with the blogging medium, yet students commented that this online learning experience exposed them to more diverse viewpoints and increased their commitment to writing and thinking. Bae (2011) documented that a designed class blog had positive influences on undergraduate students' learning achievement and learning flow through the analysis of questionnaire and learning/assignment evaluation scores.

## 2.2. Audio/video blogging for enhancing learning outcomes

To date, a limited number of studies have investigated the relationship between audio/video blogs and student learning outcomes in the higher education field. In response, several researchers set out to explore related issues in oral communication or speaking training courses (e.g., Cavanagh, Bower, Moloney, & Sweller, 2014; Hsu, Wang, & Comac, 2008; Huang & Hung, 2010; Hung, 2011; Shih, 2010; Sun, 2009). Relying on self-reported data, most of these short-term studies did not apply any assessment mechanisms to evaluate student performance outcomes, except for the study conducted by Cavanagh et al. (2014). In addition, none of them employed an experimental-type design to compare blogging instruction with a control group. With regard to affective outcomes, Hsu et al. (2008) documented international students' perceptions pertaining to the use of respective audioblogs to assist spoken English proficiency. These students' positive comments included 1) the ease of audioblog use, 2) the accessibility to interact with and receive individualized feedback from the instructor, and 3) the effectiveness of such a learning experience. However, the participants suggested increasing more peer interaction and uploading self-recorded videos to demonstrate speaking performance. Regarding both performance and affective outcomes, Huang and Hung (2010) explored university students' perceptions of employing individual audioblogs as e-portfolios in evaluating their oral performance in two English conversation classes. Adopting a positive perspective, most students regarded this electronic speaking portfolio as a useful tool to 1) help them identify their problems with pronunciation and vocabulary, 2) offer additional opportunities for oral practices after class, and 3) reduce speaking anxiety without facing their immediate audience. Nonetheless, these students were concerned with audioblogs' lack of interaction when recommending such e-portfolios as supplementary learning and assessment tools in traditional face-to-face classroom settings. Sun (2009) blended class blogs for her college students to increase outside-class practice opportunities in two oral communication courses. On a shared audioblog platform, students had their own space to upload their audio clips. They could then listen to, interact and share with peers either within each class or between the two classes. In general, students perceived audio blogging as a means of enhancing oral communication, self-presentation, information exchange, and social networking. Near the end of this study, many students' excitement about participation weakened and they did not spread out their blog practice evenly due to time management issues.

When incorporating video-based blogs into face-to-face instruction for 10 weeks, Shih (2010) improved most students' speech performance skills in an English public speaking course. These English majors uploaded one video clip to individual blogs, received feedback or comments, and finally re-uploaded a revised clip. The participants showed their satisfaction with blog-based learning on account of its benefits of self-autonomous and reflective learning, peer feedback and collaborative discussion, and the instructor's comments outside the classroom. Yet, students' computer literacy and the quality of technological facilities

may affect their interest, motivation, and performance in public speaking. Hung (2011) explored English majors' perceptions of using individual video blogs in a business oral communication course. Each student uploaded four video clips to personal blogs, received written feedback from peers, and reflected on their oral performance both in writing and in-class discussion. Overall, a majority of the participants expressed a favorable attitude toward this new learning tool, which provided a multidimensional perspective about learning, facilitated the process and product of learning, promoted peer-evaluation and self-reflection on learning, and offered a more flexible learning environment without time constraints. Nonetheless, several concerns or difficulties may hinder these students' learning involvement, including technical difficulties in 1) uploading video files, 2) uncomfortable and embarrassing feelings of displaying speaking performance online, 3) a lack of real-time communication among peers, and 4) time requirements in blog-based learning.

Cavanagh et al. (2014) investigated improvements in communication performance among a group of preservice teachers during four iterations in a semester. Following a video-based reflection system, the participants video-recorded oral presentations and uploaded them to a university blogging tool; afterwards, they reviewed their own and peers' presentations and made reflective comments. All the presentations were assessed using a range of rubrics based on the modes of communication and the constructed impression. The results indicated that these preservice teachers may benefit from the opportunities to practice and reflect through improved confidence and performance. However, the improvements across all criteria appeared to decrease in the later iterations due to the participants' familiarity with the reflection system or their perceived fatigue in this learning activity.

As shown in the above literature review, most of the extant studies employed either individual textual blogs or audioblogs and collected self-reported data after participants received a short duration of blog instruction. Given the scant evidence for the proposition that implementing a class-based video blog may lead to positive impacts on student learning outcomes, this yearlong study adds to the research field by investigating the effectiveness of blending this information technology in an undergraduate oral training course. The current investigation collected both self-reported data and oral proficiency tests when comparing an experimental group with a control group that received exclusively face-to-face instruction.

## 3. Methods

### 3.1. Participants and instructional treatments

This research project was obliged to follow ethical guidelines (Eisner, 1991; Howe & Moses, 1999) when recruiting a convenient sample of participants at a Taiwanese university during the 2012–2013 school year. The 42 participants under instructional treatments were two intact classes enrolled in an oral training course. This required course was offered to a small group of freshman English majors and was convened in two class sessions every week (50 min per session). According to researchers (e.g., Alasuutari, Bickman, & Brannen, 2008; Cook, 2015), assignment in quasi-experiments may be determined by self-selection or administrator judgment. The teacher–researcher introduced the blog learning platform and different instructional treatments to both classes at the outset. To respect the participants' willingness and availability to take part in the current study, the two classes were allowed to choose their placement in the experimental group (EG) or the control group (CG) based on a vote on their own preference without the teacher–researcher's interference. The class that decided to be placed in the CG did so mainly because their composition instructor had assigned them to practice writing skills in individual blogs. They would prefer to practice speech delivery in a traditional face-to-face setting. The EG class self-selected to train for their oral presentations online because of an incentive to improve their learning performance in a technology-



enhanced environment. The similar and different demographic backgrounds between these two groups are described as follows.

These classes with 21 freshman students (aged 19 to 21) learned English as a foreign language. According to the results of the placement test taken prior to their participation in this study, these students' general English proficiency was at lower intermediate or intermediate level. More than three-fourths of the students in both classes had experience in using personal blogs to interact with friends before their participation in this research project. However, none of them had ever been involved in a class-based blogging environment for any academic learning. Almost all of these participants were confident about using their computer skills to blog and maintained a positive attitude toward incorporating technology into language education.

The primary differences between the two groups were in terms of 1) gender, 2) nationality, 3) language learning experience, 4) self-rated degree of English speaking proficiency, and 5) self-rated satisfaction with English speaking proficiency (see Table 1 for a summary). In addition to an unequal number of genders, the EG had a smaller variety of nationalities than the CG ( $N = 2 < 4$ ), yet all the students were from Asian countries where English is learned as a foreign language. As to English learning experience, the CG had both more average years of learning and more hours of practicing English speaking per week than the EG (Mean = 10.4 > 9.2; Mean = 3.19 > 2.70), and a greater percentage of the CG students had ever studied in English-speaking countries (19% > 9.5%). Before participating in this research project, the EG students self-rated their degree of and satisfaction with English speaking proficiency in a less positive way, compared to their counterparts (Mean = 2.67 < 3.57; Mean = 2.24 < 3.86).

Table 2 shows the flow of treatments in both groups. The instructional design was similar between these two classes in terms of 1) the teaching/learning materials and speech activities, 2) the duration of face-to-face teacher instruction, 3) small group work, and 4) assessment materials/criteria. Except for face-to-face impromptu speech, the midterm exam, and debate practice/contests, the EG and the CG students learned how to deliver six types of speeches; accordingly, six iterations of treatments were scheduled during this study. In each iteration, the course instructor first delivered face-to-face instruction to both groups in two class sessions (100 min). Second, both groups of students were encouraged to practice and rehearse their presentations outside the class until they were satisfied with their own performance. As expected, incompatible course schedules created a situation in which the classes did not have a chance to interact with participants from the other group when those students were practicing and delivering their oral presentations. Third, practice was followed by online or in-class speech delivery and assessment in the EG and the CG classes, respectively,

**Table 1**

Demographic backgrounds of experimental and control groups.

Demographic background	Experimental group	Control group
Gender	17 females, 4 males	16 females, 5 males
Nationality	20 Taiwanese, 1 Indonesian Chinese	17 Taiwanese, 1 Japanese, 1 Indonesian Chinese, 2 Hong Kongese
English learning experience		
– Average years of learning	Mean = 9.2	Mean = 10.4
– Average hours of practicing English speaking per week	Mean = 2.70	Mean = 3.19
– Percentage of studying in English-speaking countries	9.5% ( $N = 2$ )	19% ( $N = 4$ )
Self-rated degree of English speaking proficiency <sup>a</sup>	Mean = 2.67	Mean = 3.57
Self-rated satisfaction with English speaking proficiency <sup>b</sup>	Mean = 2.24	Mean = 3.86

<sup>a</sup> Participants rated their speaking proficiency level using a 5-point scale (1 = very poor, 5 = very good).

<sup>b</sup> Participants rated their satisfaction with personal speaking proficiency using a 5-point scale (1 = very unsatisfied, 5 = very satisfied).

**Table 2**

Instructional treatments in experimental and control groups.

Experimental group	Control group
<b>First semester</b>	
<ul style="list-style-type: none"> <li>Face-to-face teacher instruction               <ul style="list-style-type: none"> <li>(e.g., pronunciation, speech styles/formats, speech outline/skills)</li> </ul> </li> <li>Face-to-face interaction with the teacher and classmates</li> <li>Face-to-face midterm oral exam (oral interview)</li> <li>Final oral exam (TOEFL iBT simulation speaking test at lab)</li> <li>Online speech delivery in the class blog</li> <li>Online peer feedback, self-reflection, and teacher comments on improving the speech</li> <li>Online assessment</li> </ul>	<ul style="list-style-type: none"> <li>In-class speech delivery</li> <li>In-class peer feedback, self-reflection, and teacher comments on improving the speech</li> <li>In-class assessment</li> </ul>
<b>Second semester</b>	
<ul style="list-style-type: none"> <li>Face-to-face teacher instruction               <ul style="list-style-type: none"> <li>(e.g., speech styles/formats, speech outline/skills, debate regulations)</li> </ul> </li> <li>Face-to-face interaction with the teacher and classmates</li> <li>In-class impromptu speech</li> <li>In-class debate practice and intra/inter-class debate contest</li> <li>Face-to-face midterm oral exam (oral interview)</li> <li>Final oral exam (TOEFL iBT simulation speaking test at lab)</li> <li>Online speech delivery in the class blog</li> <li>Online peer feedback, self-reflection, and teacher comments on improving the speech</li> <li>Online assessment</li> </ul>	<ul style="list-style-type: none"> <li>In-class speech delivery</li> <li>In-class peer feedback, self-reflection, and teacher comments on improving the speech</li> <li>In-class assessment</li> </ul>

during two scheduled weeks. Most of the EG students video-taped their own talks by themselves; a few asked roommates or classmates for further assistance. The EG students uploaded their videos to the class blog and finished self-reflection when they were available. Afterwards, they received online peer and teacher assessments in a written or audio-taped format within two weeks. At the same time, all the CG students took turns to complete speech delivery and reflect on personal performance as well as individually attended to peer and teacher assessments both in written and oral formats during four class sessions (200 min).

A class voice blog (<http://oralblog.thu.edu.tw/moodle/>) was set up to meet the course objectives to 1) train students to communicate in fluent and accurate English, and 2) foster students' development of confidence in their ability to speak publicly (see Figs. 1 and 2 for sample snapshots). Embedded on the Moodle platform, the class blog allowed students to 1) upload audio/video-taped speech files, 2) engage in interactive (written) discussion on audio/video clips, 3) receive peer-assessment on speech performance in groups, 4) conduct self-reflections on individual speech delivery, and 5) upload



**Fig. 1.** A snapshot of the blog platform.

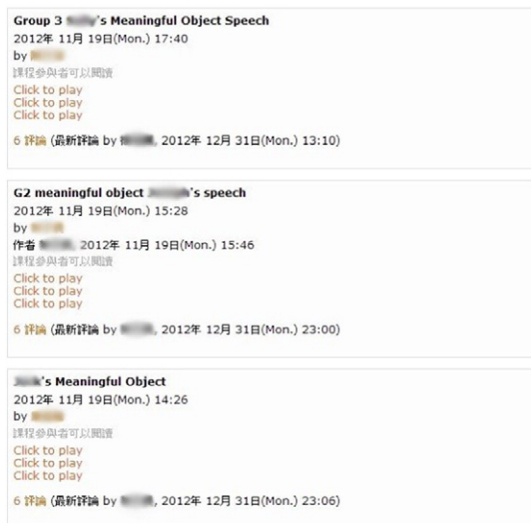


Fig. 2. An example of interactive discussion.

and provide data-management functions. Students were able both to track their own blog history and to enjoy easy access to classmates' blog entries. As noted by Sun (2009), sharing the same space in an integrated class blog among students would "increase the likelihood of classmates listening to and interacting with each other" (p. 90), compared to having individual students set up their own blogs.

During the instructional treatments, the teacher–researcher balanced her roles and instructional hours in both EG and CG classes. In addition to in-class instruction (200 min per week), she assisted the CG students' speech preparation during her office hours (100 min per week). She scheduled the same amount of time to complete online feedback and assessment on the EG students' uploaded videos. With the support of two research assistants, the teacher–researcher also offered the EG class instant assistance related to technological skills for videotaping and uploading speech files to the blog platform.

### 3.2. Data collection and analysis

Employing the mixed-method approach, this yearlong study collected multiple data sources to investigate the issues being discussed, including 1) two simulated TOEFL speaking tests, 2) a WTC survey, 3) an interview, and 4) a reflection journal (see below). The EG and the CG were both conducted with pre-/post-oral proficiency tests and a WTC survey before and after receiving different instructional treatments. Near the end of this investigation, the EG cooperated with a follow-up interview and a reflection journal to reveal how they perceived their learning process as well as the factors which may facilitate or hamper their oral performance and willingness to communicate in English.

- *Oral proficiency tests:* Adopted from the TOEFL iBT speaking sections by Sharpe (2006), the test items were selected to examine the development of the EG and the CG students' oral proficiency before and after receiving the instructional treatments. There were six items in respective tests of the same difficulty level, including four independent speaking questions (e.g., describing how you celebrate birthday in your country) and two integrated speaking questions (e.g., reading a passage, listening to a dialogue about the passage, and sharing your opinions on the issues under discussion). To avoid anxiety among the participants when listening and responding to the speech prompt, more preparation and recording time was scheduled in each item, compared to the implementation of authentic TOEFL iBT speaking tests. Each 30-min test was audio-taped for scoring in a language lab.

- *WTC questionnaire:* Referring to the literature (Huang, 2004; MacIntyre, Baker, Clement, & Conrod, 2001), this questionnaire contained a section to document the participants' demographic information and 30 items to gauge the EG's and the CG's WTC inside and outside classroom (15 items, respectively). The WTC-in class items were related to students' communication with classmates, the course instructor, and their self-assurance of speaking in English (e.g., Inside the classroom, I would be willing to talk with my peers in English. When I am not confident, I would not be willing to respond to my teacher in English during the class). The WTC-outside class items pertained to these participants' willingness to have a talk with peers, teachers and elders, and foreigners in English (e.g., Outside the classroom, I would be willing to discuss assignments with peers in English. I would be willing to practice speaking and conversing with foreigners in English outside the class). The five-point Likert scales were conducted with both groups in Chinese to ensure that they understood all of the items. A pilot of this questionnaire was conducted with 35 English-major freshmen at the same university; the Cronbach's  $\alpha$  coefficient reached .95 (WTC-all), .84 (WTC-in class), and .96 (WTC-outside class). After the pilot, the wordings of several items were revised based on the participants' suggestions.
- *Follow-up interview:* Twelve semi-structured interview questions were adapted from the themes highlighted in previous studies (Sun, 2009; Wan & Tan, 2011; Wu & Wu, 2011) to explore the EG students' perceptions about the effects, if any, of video blogging on developing their oral proficiency and WTC. Also included were the difficulties or problems encountered by these learners when engaging in this blogosphere. For example, they were asked "How do you perceive your oral proficiency development after the blogging learning experience?"
- *Reflection journal:* In line with the major issues investigated in the interview questions, five prompts were offered for the EG learners to reflect on how they perceived their personal performance in speech presentation, the development of WTC, and potential factors that either fostered or hindered their learning to speak on the blog. For example, they reflected on "After participating in this class blog, I feel my willingness to communicate ... because...."

In essence, qualitative data were analyzed to describe or further clarify the statistical analysis of quantitative data (Creswell, 2008). First of all, referring to the assessment rubrics of the TOEFL iBT speaking test, four subscales were included to evaluate students' oral proficiency: 1) general description, 2) delivery, 3) language use, and 4) topic development. The total scores of this test were 120; each subscale ranged from 0 to 5 score(s). An experienced EFL teacher and the teacher–researcher scored the EG and CG students' audio-taped answers to the pre- and post-tests together. The inter-rater agreement was calculated based on Pearson's product-moment correlation ( $r = .908$ ) which showed the consistency of the scoring results. Second, to investigate the effects of video blog on the two issues under discussion,  $t$ -tests, mean gain, one-way ANOVA, and ANCOVA were conducted with the data collected from the pre- and post-tests of the TOEFL iBT speaking test and the WTC questionnaire, respectively. In the cases under investigation, the significance level of  $t$ -test and ANOVA results was set at .05; Cohen's  $d$  (1988) was subsequently calculated using mean and standard deviations to indicate the effect size of significance. Cohen classified effect size as small ( $d = 0.2$ ), medium ( $d = 0.5$ ), and large ( $d \geq 0.8$ ). Coupled with a gain score analysis, the error sum of squares (SSE) was analyzed to verify the effects of instructional treatment on individual learners in each group. Referring to Tabachnick and Fidell (2013), omega squared ( $\omega^2$ ) was used to compute the effect size of significant ANCOVA results because  $\omega^2$  is less biased and more preferable to eta-squared ( $\eta^2$ ) when conducting between-subjects analysis with equal sample sizes in the current study. Finally, the grounded theory approach (Charmaz, 2014) guided the analysis of qualitative data collected from interviews and reflection journals. Along with the journal entries,

the interview transcripts were analyzed using open/axial coding techniques (Corbin & Strauss, 2014) to organize groups of data in relevant themes. In the phase of open coding, the two sets of data were read, re-read, and tagged with initial codes to identify similar and different responses to themes on a particular issue. Simple sentences and longer phrases were unitized based on meaningful and interpretable pieces of information. Similar responses were then labeled and grouped into tentative categories based on the majority of participants' perceptions. Afterwards, an axial coding technique was used to review and re-organize these tentative categories from more general categories to more specific ones. This review process established connections between/among preliminary categories and subcategories. In so doing, related and meaningful groups of data were created, and particular themes or issues surfaced. As a result, the data derived from interviews and journals were integrated into the following major categories: 1) video blogging as a learning channel, 2) video blogging as an assessment tool, 3) learners' performance of speech presentation, 4) learners' development of WTC, 5) learners' affective reactions to video blogging, 6) learners' comparisons between face-to-face and video blog learning modules, and 7) learners' concerns during video blogging.

#### 4. Results

In the sections that follow, the effects of using a class video blog on student learning outcomes will be illustrated in terms of performance aspects (i.e., oral proficiency development) and affective features, including willingness to communicate and perceptions of this blogging experience.

##### 4.1. Oral proficiency development

Paired sample *t*-tests, a gain score analysis, and one-way ANOVA tests were administered to depict the participating students' oral proficiency development. Normality and homogeneity were explored and several sets of subscale data (i.e., delivery and language use in the pretest; language use and topic development in the posttest) were transformed before conducting the ANOVA analysis. The distribution of oral test scores performed by the EG and the CG is shown in Figs. 3 and 4.

The results of paired sample *t*-tests show that both the EG and the CG improved their speech proficiency after receiving yearlong instructional treatment (EG: Mean<sub>pre</sub> = 68.45, SD<sub>pre</sub> = 14.99, Mean<sub>post</sub> = 100.67, SD<sub>post</sub> = 4.96,  $t = -8.582$ ,  $p < .05$ ,  $d = 2.88$ ; CG: Mean<sub>pre</sub> = 71.55, SD<sub>pre</sub> = 9.98, Mean<sub>post</sub> = 92.14, SD<sub>post</sub> = 4.97,  $t = -7.572$ ,  $p < .05$ ,  $d = 2.61$ ). There is no significant difference between these two groups in the pretest ( $t = -.788$ ,  $p > .05$ ,  $d = 0.24$ ), in which the standard deviations show a greater amount of variation in individual

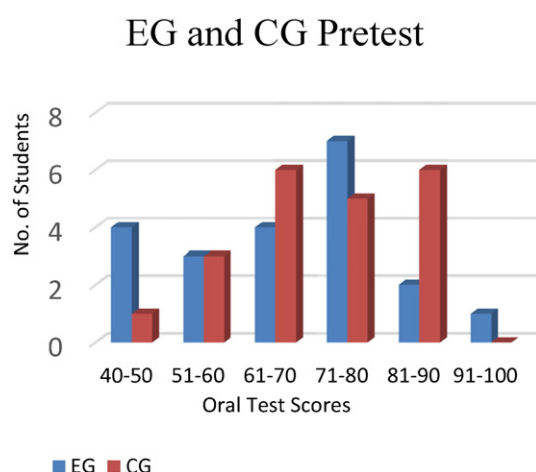


Fig. 3. Performance outcome in the pretest.

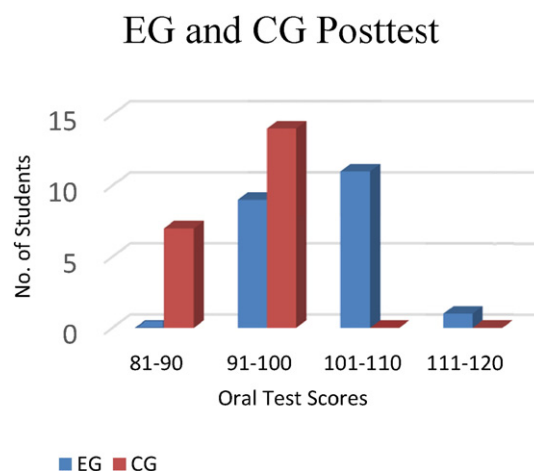


Fig. 4. Performance outcome in the posttest.

EG students' overall proficiency levels, compared with their counterpart (SD<sub>pre</sub> = 14.99 > 9.98). Additionally, the effect size appears small perhaps because the average of the CG's speech performance scores is higher than that of the EG's at the beginning of this study (Mean<sub>pre</sub> = 71.55 > 68.45). Yet, the EG significantly outperformed the CG in English speaking proficiency after engaging in the class video blog for two academic semesters (Mean<sub>post</sub> = 100.67 > 92.14,  $F = 30.910$ ,  $p < .05$ ,  $d = 1.72$ ). As shown in the standard deviations, students in both groups had a similar amount of variation in their overall proficiency levels at the end of this study (SD<sub>post</sub> = 4.96 and 4.97). Moreover, a gain score analysis depicts that the improvement in overall speech proficiency is significantly greater for participants in the blended learning environment than for those in the control condition (EG: Mean<sub>gain</sub> = 32.21, SSE = 0.09; CG: Mean<sub>gain</sub> = 20.60, SSE = 0.01;  $F = 6.28$ ,  $p < .05$ ). The error sum of squares is small to the extent that the effect of the treatment is similar for each individual in both groups.

When the four subscales of oral proficiency tests were further investigated, it was found that in particular the EG had better performance than the CG in terms of delivery and topic development ( $F = 63.290$ ,  $p < .05$ ,  $d = 2.45$ ;  $F = 92.743$ ,  $p < .05$ ,  $d = 2.97$ ; see Table 3). The findings may imply that the use of video blog allowed the EG students more time and opportunities to practice their speech delivery, compared to traditional one-shot face-to-face speech delivery. Additionally, the integration of online blog discussions fostered collaboration among the EG students to reflect on how they organized speech content and flow, which was not confined by in-class meeting time. Yet, there is no significant difference between these two groups in the aspects of general description and language usage when delivering a speech.

As revealed in the qualitative interview data, 81% of the EG students ( $N = 17$ ) appreciated the blogging experience that gradually nurtured their incentive to repeat speech rehearsals and video-taping tasks, which in turn improved their delivery skills week by week. One student stressed "I learned how to pronounce out my words or express my meaning in a more fluent way, or when to have pauses in order to grasp online audience's attention." Furthermore, 67% of the students ( $N = 14$ ) exhibited improved speech organization abilities; one student observed, "I have learned a lot from peers about how they organized the speech flow whenever I listened to their talks for several times before typing my comments in the blog entries."

To some extent, these EG students' strong motivation to improve their oral proficiency performance may be attributed to their demographic backgrounds. Compared with the CG (Mean = 3.57 and 3.86), this group of students appeared to lack confidence about themselves and had limited satisfaction with their proficiency in spoken English (Mean = 2.67 and 2.24) before receiving the instructional treatment. Yet, the awareness of low-level proficiency may encourage, if not



**Table 3**  
One-way ANOVA analysis of subscale scores.

Subscales	Test	Group	Mean (SD)	F
General description	Pretest	Experimental	16.43 (3.99)	1.781
		Control	17.98 (3.50)	
	Posttest	Experimental	24.24 (1.92)	.993
		Control	23.71 (1.45)	
Delivery	Pretest	Experimental	19.40 (3.86)	.217
		Control	18.81 (2.45)	
	Posttest	Experimental	26.52 (1.33)	63.290*
		Control	23.04 (1.50)	
Language use	Pretest	Experimental	17.14 (3.65)	1.161
		Control	18.21 (3.08)	
	Posttest	Experimental	23.43 (1.16)	.814
		Control	23.09 (1.22)	
Topic development	Pretest	Experimental	15.48 (4.51)	.802
		Control	16.55 (3.11)	
	Posttest	Experimental	26.48 (1.36)	93.075*
		Control	22.28 (1.45)	

\*  $p < .05$ .

push, the EG class to become involved in practicing speaking on the video blog with a view to enhancing their own learning outcomes.

#### 4.2. WTC development

Paired-sample/independent *t*-tests and ANCOVA analysis were conducted to keep track of the participants' willingness to communicate in the target language. According to the *t*-test results, there is no significant difference between the pretest and the posttest regarding the development of willingness to communicate within the EG (WTC-all:  $t = -.222$ ,  $p > .05$ ,  $d = .07$ ; WTC-in class:  $t = -.803$ ,  $p > .05$ ,  $d = -.25$ ; WTC-outside class:  $t = -.860$ ,  $p > .05$ ,  $d = .26$ ) and within the CG (WTC-all:  $t = .715$ ,  $p > .05$ ,  $d = -.22$ ; WTC-in class:  $t = 1.245$ ,  $p > .05$ ,  $d = -.38$ ; WTC-outside class:  $t = .284$ ,  $p > .05$ ,  $d = -.09$ ), respectively. Nonetheless, the small effect size of the *t*-test results suggests that students in both groups may retain the potential to improve their WTC after receiving different instructional interventions, despite that it is not statistically revealed in these students' self-reported survey data.

An ANCOVA analysis was further conducted to investigate the effects of instructional interventions on both groups' perceived willingness to communicate near the end of this research project. According to the pretest results of the WTC questionnaires, there is a significant difference between the EG and the CG in terms of WTC-all ( $t = -3.321$ ,  $p < .05$ ,  $d = -1.03$ ), WTC-in class ( $t = -3.435$ ,  $p < .05$ ,  $d = -1.06$ ), and WTC-outside class ( $t = -2.846$ ,  $p < .05$ ,  $d = -.88$ ). The mean score of CG (Mean = 122.29; SD = 20.86) is larger than that of EG (Mean = 103.19; SD = 16.09) in all three categories. Therefore, the current researcher investigated the statistical analysis results of WTC posttests by ANCOVA while controlling for the pretest as a covariate. In addition to testing the assumptions of independence and normality, a preliminary analysis was conducted to evaluate the homogeneity-of-

regression (slopes) assumption in each WTC category. The results indicate that the relationship between the covariate (pretest) and the dependent variable (posttest) does not differ significantly as a function of the independent variable (group) in each category; that is, WTC-all:  $F(1, 38) = .055$ ,  $p = .817$ ; WTC-in class:  $F(1, 38) = .005$ ,  $p = .946$ ; WTC-outside class:  $F(1, 38) = .003$ ,  $p = .958$  (see Table 4). In addition, the Levene's test of equality of error variances in the three WTC categories is: WTC-all:  $F(1, 40) = .700$ ,  $p = .408$ ; WTC-in class:  $F(1, 40) = .614$ ,  $p = .438$ ; WTC-outside class:  $F(1, 40) = .213$ ,  $p = .647$ .

Based on the above preliminary test findings, an ANCOVA analysis was hence proceeded in the respective WTC categories. In terms of the WTC-all, the ANCOVA is not significant despite a *p* value close to .05,  $F(1, 39) = 4.035$ ,  $p = .052$ ,  $\omega^2 = .067$ , and observed power = .50. The results show that types of intervention did not have a significantly different impact on the two groups' WTC-all near the end of this study while controlling for the effect of these students' perceived WTC-all before receiving face-to-face or blended instructional treatments. As to the WTC subcategories, the results of the posttest statistical analysis show a significant difference between the EG and the CG in terms of WTC-in class,  $F(1, 39) = 5.231$ ,  $p = .028$ ,  $\omega^2 = .133$ , observed power = .61, and it appears that the CG (adjusted Mean = 58.36, SD = 2.01) perceived more willingness to communicate inside the classroom than did the EG (adjusted Mean = 51.44, SD = 2.01). By contrast, a non-significant difference is found between these two groups regarding WTC-outside class,  $F(1, 39) = 2.582$ ,  $p = .116$ ,  $\omega^2 = .037$ , and observed power = .35 (see Table 5). In general, although the effect size of these test results is small, 13.3% of the total variance in the posttest WTC-in class is accounted for by the two intervention methods while controlling for the effect of these students' performance in the pretest.

Seemingly, the participants' demographic variables may have a potential impact on how they perceived willingness to communicate before this study; nonetheless, the impact became less substantial after the instructional treatments were conducted in two groups. In the pretest, the CG students significantly outperformed the EG students in all the three categories of WTC, perhaps due to 1) more English learning experiences, 2) higher self-rated degree of speaking proficiency, and 3) more satisfaction with personal speaking proficiency. Yet, as shown in the posttest, there is no significant difference between the EG and the CG in terms of WTC-all and WTC-outside class, except for WTC-in class. The findings imply that the development of both groups' WTC was mostly similar to each other near the end of this study.

According to the qualitative data collected, this study further clarifies and explains why video blogging did not significantly enhance the EG students' willingness to communicate as a whole. When interviewed, only 42.8% of the EG participants ( $N = 9$ ) reported gaining more willingness in overall communication in English after receiving the blog-based instruction, while the rest of them ( $N = 12$ ) appeared deficient in self-assurance when describing their improved WTC by stating "I am not quite sure" or "I have no idea." Additionally, 61.9% ( $N = 13$ ) considered that face-to-face interaction would inspire a stronger intention to converse with others in English, stating "Human beings will have so-called real communication only when they meet each other in person." In the collected reflection entries, 52.3% of the EG students ( $N = 11$ ) confessed that they found it difficult to transfer their online speech experience into daily life conversation, which may signify how they would perceive limited improvement in WTC. As explained in a

**Table 4**  
Results of homogeneity of within-class regression tests.

Source	WTC category	SSE	df	MS	F	Sig.
Regression coefficient	Overall	20.07	1	20.071	.055	.817
	In-class	.348		.348	.005	.946
	Outside-class	.385		.385	.003	.958
Error	Overall	13,984.40	38	368.01		
	In-class	2901.727		76.361		
	Outside-class	5130.579		135.015		

**Table 5**  
Analysis of co-variance for WTC-all by intervention methods.

Source	WTC category	SSE	df	MS	F	Sig.	$\omega^2$
Methods	Overall	1448.95	1	1448.95	4.035	.052	.067
	In-class	389.279		389.279	5.231	.028*	.133
	Outside-class	339.719		339.719	2.582	.116	.037
Error	Overall	14,004.470	39	359.089			
	In-class	2902.076		74.412			
	Outside-class	5130.964		131.563			
Corrected total	Overall	15,884.976	41				
	In-class	3409.619					
	Outside-class	5566.786					

\*  $p < .05$

written quote, “To give a speech and discuss about the speech delivery online is different from my face-to-face talk with classmates or teachers in the classroom.”

### 4.3. Learners' perceived blogging experience

#### 4.3.1. Positive impact

According to the qualitative data collected, the most frequently recurring themes among these EG students' positive responses to this video blogging experience are: 1) flexible and/or innovative learning channel, 2) reducing speech anxiety, 3) convenient and multi-dimensional assessment, and 4) improving presentation skills.

First of all, 19 out of 21 students (90.4%) conveyed in the interview that they had more flexible time schedules to practice speech presentations. When comparing blog-based speech presentation with face-to-face delivery, two students noted that “I could practice and revise my speech content many times whenever I made any mistakes” and “I felt more comfortable when I was allowed to spend extra time practicing and videotaping my speech repetitively.” As further revealed in the reflection journals, 16 students (76.2%) considered blogging to be an innovative learning approach, stressing that “It is an accommodating and refreshing way to use this blog platform different from the traditional face-to-face learning style.” In light of the ubiquitous features of Weblogs, one student highlighted that “Practicing on this class blog could help us pass TOEFL or other language proficiency tests that are Internet-based instead of using a paper-and-pencil format.”

Second, 17 out of 21 interviewed students (80.9%) relieved their performance anxiety when delivering speeches online. Typically, one student commented about having a shy personality that “made me very nervous to talk in front of others in the past, and online speech practice helped reduce my anxious feelings.” Another stated that “It was beneficial to train myself to become brave in presenting an English speech [on the blog] before I talked to others face to face.” Similarly, a majority of these learners reported in their reflection entries that they experienced less pressure and anxiety in speech preparation or performance (71.4%,  $N = 15$ ). For example, they reported “It was more relaxing to prepare my speech content before uploading it to the blog because I regarded it as a personal broadcasting process.” “I felt not so anxious when talking to a machine than when talking to all my classmates in class.”

Third, in response to oral interviews, 16 of the students (76.2%) perceived the video blog as an efficient access to review self- or peer-performance of speech practices, and 14 (66.7%) showed a preferable attitude toward the online multi-dimensional assessment, including self-reflection, peer feedback, and teacher comment. Two students said, “It was very easy for me to keep track of my own speech performance by just clicking on blog entries.” “We gave peer feedback whenever we were available without time limits and physical barriers. In addition, our teacher gave us a lot of comments when she was available.” One typical student reported the confidence she received “when peers gave me positive feedback or some suggestions to make me aware of the weakness to be improved.” In written journals, most of

these learners echoed previous interview statements concerning the scaffolding effects of online peer/teacher feedback (61.9%,  $N = 13$ ) and self-reflection (71.4%,  $N = 15$ ). They reflected “I could not improve myself in speech delivery without the online support I got from my teacher and classmates.” “It was quite useful to reflect upon my own speech performance and receive peers' feedback.” The greatest benefit of using this video blog is “we could review our speech performance again and again. The classmates could make online comments to help each other's learning.”

Finally, more than 60% of these students highlighted either in the interview ( $N = 14$ ) or reflection journals ( $N = 13$ ) that they improved presentation skills during this blogging experience mainly in the aspects of organization skills, delivery techniques, and speech content development. These interviewed students reported how they tried to conceptualize and brainstorm the speech drafts before they articulated and presented the speech content on the blog. One student said, “In different video clips, we did see each other's creativity and speech flows. This helped us with revising our speech outlines.” Owing to the opportunity to rehearse and practice in advance, another addressed, “I felt like it was not so difficult to present an English speech, once I could keep practicing and practicing on this blog. It really made me improve a lot in fluency and presentation skills.” The other further commented that “I always compared what I included in speeches with other classmates' content for many times on the blog, and then I learned how to develop the speech topic for the next time.”

#### 4.3.2. Negative impact

While most of the EG students perceived the benefits of using this class blog as a learning tool, some of them raised three major concerns, if not problems, during this learning process. They included: 1) lack of real-time peer interaction, 2) extra workload and time management, and 3) limited willingness to communicate in English.

To begin with, 57.1% of the interviewed students ( $N = 12$ ) noted a lack of real-time peer interaction when talking to machines to record their speeches. Typically, one student explained his perception, stating “Though this kind of online speech presentation or discussion is very convenient, I think it is more like a talk to a lifeless recorder or this Internet platform rather than a simultaneous talk with animate human beings.” Another student stressed that “It would be more direct and vivid to interact with my peers face to face.”

Furthermore, 47.6% of the students ( $N = 10$ ) complained about the demanding workload of online speech preparation, which made them have less time and energy to get involved in online communication with peers or the instructor. As two students stated in their interviews, “It was a bit exhausting to record the speech again and again because I wanted to make it more perfect before uploading it to the blog. So, I didn't have much energy left for online discussion on others' talk.” “Sometimes, it took time for me to figure out how to upload the speech in an efficient way. After that, I was too tired to review the other classmates' work before the deadline requested by [my instructor].”

Finally, as revealed in the reflection entries, several students ( $N = 8$ , 38%) described their limited willingness to communicate with others in English which was attributed to the aforementioned two concerns. For instance, one student wrote that “delivering speech via the class blog has less influence on my willingness to communicate in English. It's because I was making a video rather than talking to people face to face.” Due to the tight schedule of completing speech assignments, another student portrayed that “I was too fatigued to develop so-called willingness to communicate [in English], because I was always worried about not being able to upload my videos on time.”

## 5. Discussion

The findings of this study suggest that incorporating a class video blog into face-to-face instruction is beneficial for enhancing undergraduate students' learning outcomes. Statistically, the experimental group



(EG) significantly outperformed its counterpart in the overall oral test performance after receiving the instructional treatment, notwithstanding the potential impact of participants' demographic backgrounds at the beginning of this study. The current study echoes Cavanagh et al. (2014) showing that the application of video-based blogging does matter in learning performance by offering further evidence based on assessment scores. In particular, this video blog platform with the features of allowing more practices and peer discussion (Hung, 2011; Shih, 2010) fostered the university students to reinforce more competence in speech delivery and topic development in the post-TOEFL iBT speaking test, compared to those who solely received face-to-face instruction. As reiterated in the qualitative data collected, these students had more flexible time schedules and became less anxious about preparing and presenting their online speeches. They further appreciated the opportunities in joining online multidimensional assessment (i.e., self-reflection and peer/teacher feedback) to improve their speech performance. Yet, similar to Ko's (2012) argument that online learning may not be predominant in language production and linguistics learning, it appears that the two groups recruited in this study did not have significant differences in presenting general description and language usage near the end of this study. The possible explanation for this finding is attributed to the current research design in which both classes received the same instruction related to general speech preparation skills and English language inputs from the teacher–researcher.

As shown in the quantitative data analysis, it seems that blog-based speech practices did not have significant effects on increasing the participating EG students' overall willingness to communicate (i.e., affective outcome) inside or outside classroom context. After controlling the initial WTC degrees between the EG and the CG as a covariate, the online learning group did not have significantly more WTC than the face-to-face group after the yearlong instructional intervention. This echoes the findings of previous studies (e.g., Alm, 2009; Kissau, McCullough, & Pyke, 2010) noting that blogging may not necessarily be an efficient method of improving learners' WTC in a spoken format when compared with what was documented in a written context. Interestingly, the CG significantly performed much better than the EG in the degree of WTC-in class. The online oral practice format of speech delivery designed in this study appeared more formal, different from Reinders and Wattana (2014) employing online informal games or chat to increase students' WTC-in class in a more relaxing learning context. Perhaps, students' perceived social presence was not well developed in such a learning-to-speak module. In an online learning environment, social presence primarily determines the quality of communication that can lead to how people interact and communicate (Lowenthal, 2009). The qualitative data analysis further clarifies that these recruited EG students tended to prefer face-to-face oral interaction as they were not certain about how online speech delivery and discussion could be transferred into daily conversation in relation to the increase of willingness to communicate. In line with the previous literature (Huang & Hung, 2013; Sun, 2012), learners may feel unfamiliar and uncertain about the novel online learning applications. Similar to the learners of Sun (2009) and Cavanagh et al. (2014), these freshmen felt too tired to become involved in more blog-based discussions because they were spending too much time and energy on online speech preparation; this may have some degrees of influence on their overall development of willingness to communicate with others.

## 6. Implications and conclusion

The current study documents the effects of blending a class video blog on optimizing the development of undergraduate students' performance outcomes (i.e., improvement in speech proficiency and skills) but not in terms of the affective aspect (i.e., willingness to communicate in English). It was found that some of the EG students reported the demanding repetitive video-taping workload, which may reduce their willingness to take part in the online learning. These participants

seemed not to have enough online social presence and hence appeared to favor face-to-face speech delivery, despite their preferable attitude toward the blog-enhanced learning opportunities.

Several pedagogical guidelines could be derived from the participants' learning outcomes and feedback. First of all, video-based blogging has great potential to foster student learning performance as it offers more online learning opportunities for students to interact with peers and practice oral presentation skills. In addition to language courses, other disciplines that attempt to train students to demonstrate their subject matter knowledge may consider employing this blogging format with visual and sound effects other than textual blogging. Second, blogging instructors are expected to offer more guidance, support, and encouragement to assist students' learning process. As noted by Vaughan (2010), teacher presence plays an essential role in promoting a blended community of inquiry among online learners. Due to the experimental-type design of this study, the current researcher balanced her instructor hours between the EG and the CG, which may avoid more instructor engagement in the EG students' blogging experience. Third, it is paramount to further alleviate learners' anxiety about completing online assignments in the blog-based learning environment. In addition to allowing learners more flexible time to upload their video-taped work, encouraging "off-task talk" in online discussions may help develop and build social relationships and mutual trust among online community members (Bulu & Yildirim, 2008). Finally, it is hence of great importance for course instructors to strengthen peer relationships and connectedness (Lee & Bonk, 2016) with an aim to reinforce student learning outcomes in a class-wide blog learning community. If needed, online games or chat promoted by Reinders and Wattana (2014) may be integrated into instructional design to foster learners' willingness to interact and communicate with one another. In addition to warm-up leisure activities, theme-based games relevant to speech topics could be designed and employed to trigger informal and more entertaining reflection on learning content among online learners. Furthermore, either class or group chat room(s) could be created to allow learners more opportunities to share how they prepare for the learning assignment. Learners may discuss their successful learning experience or vent the difficulties that they are facing at will.

The limitations of this study may offer future directions to researchers searching for the most pedagogically sound applications of blogs. The duration of the current participants' blog-based learning practice lasted for approximately one year; potentially, learners' longer participation in the same online learning platform would provide them with more opportunities to improve their affective learning outcomes. Additionally, the small number of first-year English majors in this project receiving different instructional interventions may limit the generalizability of the research findings. Larger samples of participants from different year levels and various disciplines may reflect a more comprehensive learning outcome derived from blending video-based blogging into traditional in-class instruction. Furthermore, the current research project followed ethical guidelines to have participants self-select their placement in instructional interventions based on willingness and availability. The validity of research findings was confirmed by the positive performance outcomes of the experimental group which had less advantages in previous English learning experience than did its counterpart. If possible, future researchers may determine participants' treatment assignment with the aim of fully ensuring the validity of a quasi-experimental design.

The current study adds evidence to the literature gaps reiterated by Golonka et al. (2014) and Sim and Hew (2010), which indicate that more efforts are needed to compare blog applications and face-to-face instruction in the education field. This study proves that a class video blog may be employed as a beneficial medium in a blended learning environment. The evidence is not only interpreted from undergraduate students' self-reported perceptions collected in the extant research using audio/video blog platforms (e.g., Shih, 2010; Sun, 2009, 2012) but also is further based on these students' actual performance in

achievement tests at a higher education context. Nonetheless, this study shows that the asynchronous video-based blogging does not significantly improve these participants' affective outcomes, which require more related investigation and documentation. More relevant studies to be conducted will sketch and draw a more complete picture depicting the affordance of blog applications in the landscapes of educational change.

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