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Implementing process-genre approach, feedback, and technology in L2 writing in higher education

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Abstract

The process-genre approach, varied feedback types, and technology integration have been shown to improve students' writing skills, but there is little research on how these three variables interact when implemented together in writing instruction. This study applied a quasi-experimental design with a sequential explanatory design to integrate the process-genre approach, teacher and peer oral and written feedback, and an online technology platform into a Thai university's English writing course. The experimental group received interventions, whereas the control group received standard writing instruction with papers and teacher and peer feedback. Writing pre- and post-tests, formative writing assignments, teacher, peer, oral, and written feedback surveys, and semi-structured interviews were the evaluation instruments. Descriptive statistics, the Wilcoxon Signed Rank Test, the Mann–Whitney–Wilcoxon test, Spearman's correlation, and Kendall–Theil regression were used to examine quantitative data. A thematic analysis examined qualitative data. The experimental group scored higher on post-tests than pre-tests, indicating that they valued instructor feedback more than other types of feedback. Task response and lexical resource showed substantial gains, although coherence and cohesion, grammatical range, and accuracy did not. The control group had no significant changes in pre- and post-test scores except for task responsiveness. Written feedback was significantly associated with post-test scores and certain post-test criteria in the experimental group. The findings emphasize the importance of a process-genre approach, constant feedback, and technology to improve students' writing.

Keywords: EFL writing, English language teaching, Process-genre approach, Integrated feedback, Online writing platform

Introduction

English as a Second Language (ESL) and English as a Foreign Language (EFL) learners often grapple with considerable impediments in their pursuit of writing proficiency. These impediments frequently arise from restricted language immersion, deficient linguistic comprehension, and the disparities between their native linguistic systems and those of the target language (Aljahdali & Alshakhi, 2021; Nguyen & Suwannabubpha, 2021). This predicament is exemplified amongst Thai tertiary-level students, where the

acquisition of proficient writing skills remains a persistent challenge, even after completing a comprehensive 12-year English language curriculum (Noom-ura, 2013; Waluyo & Bakoko, 2021). Such circumstances engender apprehensions regarding the efficacy of the prevailing instructional models adopted in Thailand, which often lean on antiquated methodologies such as grammar translation and rote learning, with a marked neglect of critical thinking and writing capabilities development (Puengpipattrakul, 2014).

Thai academics have embarked on investigations into alternative pedagogical strategies, including process-oriented and genre-oriented approaches, in a bid to circumvent the limitations inherent in traditional writing instruction. Although these paradigms have exhibited promising outcomes in ameliorating linguistic attributes and enhancing student attitudes towards writing, they often overlook other crucial facets of writing, including accuracy, organization, and the effective expression of ideas (Dokchandra, 2018; Puengpipattrakul, 2014; Thongchalerm & Jarunthawatchai, 2020). Consequently, a pressing need has emerged for additional research to probe the viability of integrating these methodologies with feedback and technology, particularly within the context of Thai EFL students (Belmekki et al., 2018; Pujianto et al., 2014). Thus, the present study endeavors to investigate how the implementation of the process-genre approach with feedback and technology might foster the development of writing skills among Thai learners. Such an inquiry aims to bridge the gaps in academic literature and contribute towards the development of more efficacious writing instruction strategies in tertiary education.

Literature review

Process-genre approach

The combination of the 'process approach' and the 'genre approach,' known as the 'process-genre approach,' has emerged as a response to the limitations of each approach in enhancing learners' writing abilities (Babalola, 2012). This approach integrates elements from both approaches, resulting in a more comprehensive utilization of texts while considering other aspects (Nordin, 2017). In the 'process-genre approach,' writing is perceived as requiring language awareness, contextual knowledge, purpose, and language skills (Badger & White, 2000). It emphasizes extending learners' potential and providing input for their writing development (Gao, 2007; Ghufon, 2016; Guo, 2005). The 'process-genre approach' combines the recursive writing process of the process approach, which includes planning, composing, editing, and revising, with the genre-based approach that emphasizes understanding the context and purpose of writing (Hyland, 2003; Yan, 2005). This integration aims to improve learners' writing abilities by incorporating essential elements from both techniques (Babalola, 2012; Gao, 2007). It promotes learners' creativity and a balanced focus on language comprehension, text structure, social context, and writing processes (Babalola, 2012; Gao, 2007).

In terms of the teaching model, writing is viewed as a series of stages that begin with a specific social context and culminate in the production of a text. Teachers play a vital role in facilitating students' growth by providing them with the necessary knowledge and skills (Kim & Kim, 2005). This study adopts a 4-step instructional model, as illustrated in Fig. 1 by Pujianto et al., (2014). The model involves constructing the context, introducing language aspects, incorporating collaborative writing exercises and peer feedback, and

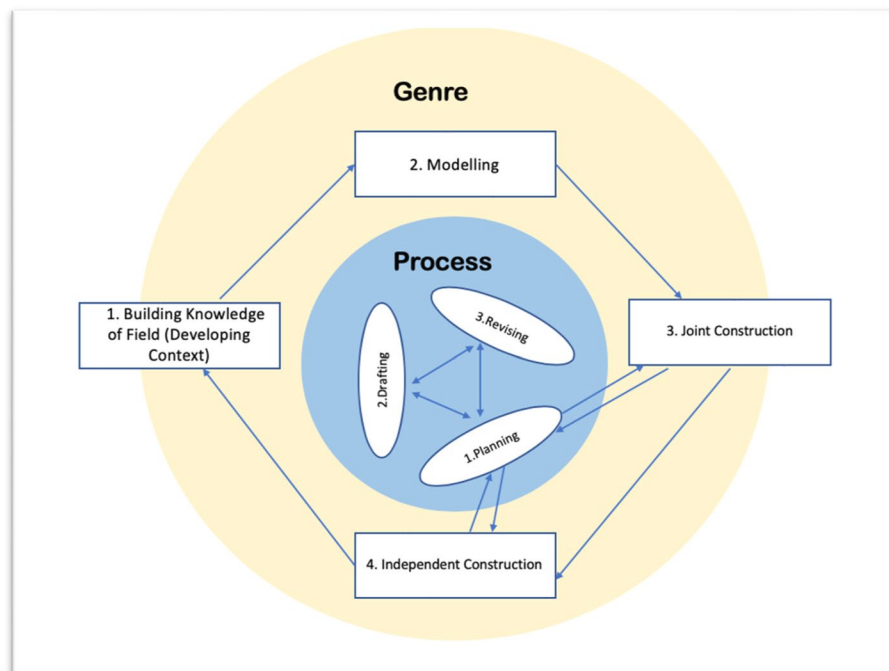


Fig. 1 Process-genre approach's teaching instruction model (Huang & Zhang, 2020)

finally, independent construction of text (Huang & Zhang, 2020; Pujianto et al., 2014). Existing research has demonstrated the positive impact of implementing the 'process-genre approach' on students' writing achievement across various text types, including narrative, argumentative, and descriptive (Babalola, 2012; Gupitasari, 2013; Huang & Zhang, 2020). Furthermore, scholars recognize the influence of this approach on students' motivation and the classroom environment (Megawati & Anugerahwati, 2012). To maximize the benefits of this approach on students' writing development, it is essential for instructors to incorporate both peer and teacher feedback, allocate sufficient time for modeling, and strike a balance between social context knowledge and writing process knowledge. However, there is a lack of research conducted in the Thai EFL context.

Feedback in L2 writing

Feedback plays a vital role in second language writing instruction, aiming to provide learners with information about their performance on learning tasks and facilitate performance improvement (Ur, 1996). It is widely recognized as a crucial aspect of language acquisition, and various forms and types of feedback, including teacher, peer, oral, and written, are considered influential (Hattie & Timperly, 2007). The following presents a synthesis review that incorporates both teacher and peer feedback, highlighting both oral and written feedback provided.

Teacher feedback

Teacher feedback holds significant value and is considered an indispensable tool for enhancing students' writing skills. Research indicates that students perceive teacher feedback as more valuable than peer feedback (Miao et al., 2006). Through teacher

feedback, students gain awareness of their writing strengths and weaknesses, which can lead to improvement (Baliaghizadeh & Dashti, 2011; Hubais & Dumanig, 2014; Jamalinesari et al., 2015; Wichanpricha, 2020). The incorporation of integrated feedback, combining form- and content-focused feedback, is observed in process-genre teaching. Although some studies acknowledge the role of integrated teacher feedback in process-genre and genre-based instruction, few establish a direct link between the process-genre approach and teacher feedback. For instance, Belmekki et al., (2018) conducted an action research study exploring the impact of the process-genre approach on students' achievement in writing business letters. They found that instructor feedback during the writing process was beneficial but did not provide a comprehensive explanation of the extent of its effectiveness. Similarly, Zhang (2018) conducted experimental research and observed an increase in self-efficacy levels among Chinese EFL graduate students in process-genre academic writing instruction due to positive feedback from instructors. However, the studies lack in-depth analysis and explanation of the advantages of teacher feedback within the process-genre approach.

Teachers typically implement a duality of feedback methods in classrooms: oral and written. As an interactive discourse between teachers and students, oral feedback—extensively explored in the domain of second-language writing pedagogy—has demonstrated a profound impact on the enhancement of students' writing proficiency (Lyster & Saito, 2010; Roothoof & Breeze, 2016; Sobhani & Tayebipour, 2015). However, the integration of oral feedback within the paradigm of the process-genre approach remains insufficiently researched, warranting further investigation to ascertain its operative mechanisms and efficacy (Maolida & Salsabila, 2019; Tesfie, 2017). Concurrently, written feedback serves as a pivotal element in fostering the development of learners' writing competencies, especially within the realm of ESL/EFL education. The provision of feedback in written form by teachers is acknowledged for its potency and desirability among both pedagogues and learners, notwithstanding its labor-intensive aspect (Goldstein, 2004; Lee & Schallert, 2008). The process-genre approach underscores the significance of written feedback across multiple junctures in the writing trajectory (Ghufron, 2016; Kim & Kim, 2005; Pujianto et al., 2014). Empirical research illustrates the positive correlation between written feedback and students' self-esteem, suggesting that quality feedback facilitates superior final drafts, particularly among students who possess elevated self-esteem (Ghufron, 2016). Essentially, there is a need for further investigation into the combined utilization of oral and written feedback in educational contexts to maximize its potential and determine its effectiveness in the ever-evolving field of second-language teaching, particularly within the framework of the process-genre approach.

Peer feedback

The term 'peer feedback' encapsulates the process whereby learners partake in the offering of evaluative comments and the employment of informational resources to support each other during the writing process (Liu & Hansen, 2002). In the recent academic epoch, peer feedback has gained considerable prominence within the realm of English as a Foreign Language (EFL) and English as a Second Language (ESL) writing pedagogy research. Renowned scholars acknowledge and substantiate its instrumental role in augmenting writing competencies and the resultant learning outcomes (Berggren, 2015;

Kusumaningrum et al., 2019; Singh & Tan, 2017; Wang, 2015). Further merits attributed to the application of peer feedback include its capacity to foster heightened student participation in the learning process, thereby cultivating autonomous writing capabilities (Hyland, 2000; Wakabayashi, 2013). The strategy essentially encourages students to engage in a more active learning process, where they become more responsible for their own skill development, and less dependent on the teacher's feedback. However, despite these perceived advantages, a burgeoning body of research has drawn attention to the potential caveats of peer feedback, raising substantive concerns about its quality and effectiveness (Yu & Hu, 2017; Yu & Lee, 2014). Such concerns revolve around the accuracy of the feedback provided, the ability of students to give constructive criticism, and the potential for peer feedback to be influenced by social dynamics among students. It is therefore of paramount importance to ensure that the implementation of peer feedback strategies in the learning environment is supplemented by adequate training and supervision to uphold its quality and efficacy. Such measures can safeguard against potential shortcomings, ensuring that the benefits of peer feedback are fully actualized within the context of ESL/EFL writing instruction.

In contemporary scholarly discourse, heightened emphasis has been placed on peer oral feedback, which research has elucidated as a catalyst for the enhancement of learners' writing skills and motivation (Marefat, 2005; Raibee, 2010; Saadi-Ali, 2021). However, apprehensions surrounding the efficacy of peer oral feedback have been voiced, with some studies revealing a predilection among learners for receipt rather than delivery of feedback (Tian & Li, 2018; Zhao, 2018). It is important to note that positive feedback without constructive suggestions may hinder improvement. Despite the recognition of the advantages of peer feedback, its specific effects within the process-genre approach remain largely unexplored (Assaggaf, 2016; Pujiyanto et al., 2014). A dearth of empirical exploration has been concentrated on elucidating the role of peer feedback within the parameters of this pedagogical framework. For instance, Assaggaf (2016) conducted an inquiry into the execution of the process-genre modality amongst English as a Foreign Language (EFL) learners in Yemen and posited peer feedback as an integral pedagogical instrument. However, this investigation failed to yield detailed conclusions pertaining to the impacts of peer feedback. This, hence, highlights the need for further research to explore the impact of peer feedback within the process-genre approach, particularly in relation to its effectiveness and contribution to students' writing development.

Process-genre approach and technology

The integration of technology, particularly computer-assisted language learning (CALL), has transformed writing practices and processes in foreign language education (Kessler et al., 2012). Numerous studies emphasize the positive impact of CALL implementation on academic performance, motivation, and learning outcomes in EFL writing classes (Alhaqbani, 2015; Jafarian et al., 2012; Liou et al., 1992; Pratiwi & Waluyo, 2022; Zaghlool, 2020). Experimental research consistently demonstrates that students who use CALL exhibit significantly higher writing achievement compared to those in control groups (Ghufron & Nurdianingsih, 2021; Zaghlool, 2020). Wikis and web blogs are additional technological tools utilized in EFL instruction. Wikis, a web-based collaborative platform, enables asynchronous online collaboration, providing

language instructors with new avenues to teach writing skills (Lund, 2008; Waluyo & Apridayani, 2021). Studies indicate that wikis enhance learning, improve writing abilities, and promote learner autonomy (Sun & Qiu, 2014; Wang, 2015; Wichadee, 2010). Chang and Szanajda (2016) illustrate the integration of web blogging and the process genre approach. Their study, employing a quasi-experimental design, investigated the effects of combining the process genre approach with blog integration in EFL undergraduate writing classrooms. Results revealed significant improvements in writing performance for students in the experimental group. The process genre approach and blogging activities facilitated reflection and ownership, enabling students to enhance the comprehensibility of their texts. The collaborative nature of blogging and the process genre approach fostered opinion exchange and positively impacted students' writing attitudes, motivation, and overall writing skills. Nevertheless, the present study also considers the potential presence of a digital divide that may arise among Thai EFL students at the tertiary education level (Rofiah et al., 2022; Waluyo, 2020a, 2020b).

This study integrates an online writing platform named *Writeabout.com*. It is an educational online platform that supports language instructors in developing students' sentence construction skills and nurturing their writing passion (Panmei & Waluyo, 2021). This tool enables teachers to create writing classes, assign collaborative writing tasks, and monitor students' progress outside the classroom. Safada and Refnaldi (2019) found that incorporating *Writeabout.com* into EFL writing instruction in Indonesian high schools addressed students' difficulties in writing and sentence formation. Students expressed a need for digital media integration in writing classes, emphasizing the potential benefits of tools like *Writeabout.com*. Waluyo (2020a, 2020b) conducted a study in Thailand, incorporating *Writeabout.com* and emphasizing "smart classroom" and "active learning" approaches. The results indicated improved learning outcomes and student achievement in a general English course. Additionally, a recent study by Waluyo et al. (2023) with Thai non-English major students demonstrated that formative online writing tasks mediated by *Writeabout.com* significantly enhanced students' writing performance. These studies contribute to our understanding of the benefits of integrating *Writeabout.com* in EFL writing instruction.

This literature review highlights the need for further research on the interaction between the process-genre approach, feedback, and technology in L2 writing instruction. While previous studies have shown promising results for each variable individually, there is limited research on their combined effects. In the context of EFL writing instruction in Thailand, the process and genre approaches have been extensively studied (Dokchandra, 2018; Dueraman, 2012; Puengpipattrakul, 2014). For instance, Dokchandra (2018) conducted a quasi-experimental study on the process method and found that it improved essay writing performance for English majors. Thongchalerm and Jarunthwatchai (2020) explored genres in a similar manner and observed greater improvement in linguistic traits for students in the experimental group. Dueraman (2012) concluded that employing an integrated approach allows teachers to maximize the benefits for students. The process-genre approach has also been investigated in the Thai EFL context, with researchers examining its effects on argumentative essays

and medical and health science students' writing development (Janenenppakarn & Thongrin, 2020; Satio, 2010). These studies demonstrated improved writing scores, increased confidence, and more positive attitudes toward writing.

The study

To further contribute to the field of writing research, this study aims to investigate the interplay of the process-genre approach, feedback, and technology in L2 writing among Thai university students. The research questions to be addressed are as follows:

1. How do students perceive their learning experiences and outcomes in a writing course that integrates a process-genre approach, feedback, and technology?
2. How does a writing course that integrates a process-genre approach, feedback, and technology impact Thai EFL students' development of writing skills in terms of task response, coherence and cohesion, lexical resources, and grammatical accuracy?
3. What correlations can be drawn from students' perceptions of their learning experience and outcomes and the development of their writing skills?

Methods

Research design

This study employed a sequential explanatory research design, which combines quantitative and qualitative techniques, to comprehensively investigate the effects of incorporating a process-genre approach, feedback, and technology on Thai EFL students' writing skills (Creswell et al., 2003). The study consisted of two phases, quantitative and qualitative, allowing for a comprehensive analysis of students' perspectives and learning outcomes. The utilization of a sequential research design was justified due to the aim of acquiring both a general and a deeper understanding of the research problem.

Research context and participants

This study was conducted at Walailak University, a mid-sized university in southern Thailand, known for its veterinary program (Akkarachakumari Veterinary College). The university has approximately 8000 students across various faculties and colleges. A purposive sampling method was employed to recruit participants, which is commonly used in experimental research designs to select information-rich situations while optimizing available resources (Bernard, 2017). The study involved 28 freshmen from the veterinary college, comprising 8 male students, 14 female students, 5 LGBTQ+ students, and 1 student who preferred not to identify their gender. Their ages ranged from 18 to 20 years old. The participants had varying durations of English language learning experience, with the shortest being 2 years and the longest being 17 years. Prior to enrolling in the English course, all students took the "Walailak University Test of English Proficiency (WUTEP)," a standardized placement test that assesses English proficiency levels based on the Common European Framework of Reference (CEFR). The test results indicated a wide range of English language proficiency levels, ranging from beginner (A1) to intermediate (B2).

In the experimental cohort, a total of 14 students were involved, encompassing four males, seven females, three identifying as LGBTQ+, and one participant preferring to abstain from disclosing their sexual identity. Predominantly, the students in this group were 18 years old. Equally, the control group comprised 14 students, with the gender and identity distribution including four males, seven females, two identifying as LGBTQ+, and one individual opting not to disclose their sexual identity. The age span in the control group extended from 18 to 20 years, with the majority still being 18 years old. Concerning English language proficiency, both the experimental and control groups demonstrated comparable skill levels, classified as independent users of English. Their proficiency aligns with the B1-B2 thresholds in the Common European Framework of Reference (CEFR). This equivalency in language proficiency ensures an unbiased comparison of the effects of the respective teaching methodologies on the two groups.

Ethical consideration

This study received approval from the Institutional Review Board (IRB) for human research conducted at Walailak University, Thailand (WUEC 22–185-01).

Instrument and measure

Writing pre- and post- tests

The study employed pre- and post-writing tests, utilizing essay prompts from the IELTS Academic Writing Task 2. Separate essay questions were given for the pre-test and post-test, with the pre-test administered in the first week before the lesson and the post-test conducted after the completion of two cycles of the process-genre approach. Each test required students to write a minimum of 250 words within a 40-min time limit, reflecting the time constraints of the actual IELTS Academic writing test. The IELTS rubric was used to score students' essays, which encompassed task achievement, coherence and cohesion, lexical resources, and grammatical range and accuracy, resulting in a summative score between 0 and 9. To ensure impartiality, the pre- and post-tests were evaluated by four different raters who were experts in English Language Teaching and had published research in Q1 journals.

Formative writing tasks

As part of the study, both the control and experimental groups were assigned two formative writing tasks based on essay prompts adapted from the IELTS Academic Writing Task 2. These tasks were individually marked using the IELTS Academic writing assessment rubric, which evaluated students' performance across four criteria: task response, coherence and cohesion, lexical resource, and grammatical range and accuracy. The teacher scored the students' essays. Formative writing task 1 was given to both groups in the third week, focusing on the topic of relocating ocean creatures for amusement parks. Formative writing task 2 was assigned in the fifth week, addressing the impact of Internet usage on social interaction.

Pre- and post-surveys

This study used pre- and post-surveys to collect students' perceptions concerning corrective feedback, as elaborated below.

Teacher feedback survey

The questionnaire used to collect students' perceptions of teacher feedback in this present study was adapted from Vattøy and Smith (2019). The scale consisted of 5 items such.

The questionnaire was a Likert scale where responses ranged from 1 to 5, where "1" = "Completely disagree" and "5" = "Completely agree". For pre and post survey, the Cronbach's alphas were 0.87 and 0.80 correspondingly, which showed very high internal consistency.

Peer feedback survey

The survey for peer feedback in this current study was adopted from Huisman et al. (2020). This questionnaire used a 5-point Likert scale where respondents need to rate from "completely disagree" to "completely agree." There were 4 sub-scales in this questionnaire, which included (1) "Valuation of peer-feedback as an instructional method ('VIM')", (2) "Confidence in own peer-feedback quality ('CO')", (3) "Confidence in quality of received peer-feedback ('CR')", and (4) "Valuation of peer-feedback as an important skill ('VPS')". In addition, this questionnaire contained a total of 10 items, where there were 3 items in sub-scales 1 and 4, and 2 items in sub-scales 2 and 3. Moreover, all the item texts were statements that addressed how learners perceive peer-feedback. The result from reliability test informed Cronbach Alpha's = 0.804 and 0.899 for pre and post surveys, respectively. Both of them showed a considerably high internal consistency.

Oral feedback survey

The oral feedback survey was modified from Ha et al. (2021). The survey used a 5-point Likert scale, consisting of 3 sub-scales and 8 items. The 3 sub-scales were (1) "Beliefs about the role of OCF", (2) "Preferences for OCF types" and (3) "Preferences for OCF Timing". In the first and second sub-scale, there were 3 items. While there were only 2 items in the last sub-scale. The responses were from 1 to 5, where "1" = "Completely disagree" and "5" = "Completely agree". The Cronbach's alpha for pre-survey = 0.726 and for post-survey = 0.930 which demonstrated high internal consistency.

Written feedback survey

This present study adapted the written feedback survey from Samuel and Akther (2021). The survey was a 5-point Likert scale where the responses ranged from "completely disagree" to "completely disagree." There was only one scale with 5 items in the survey, which focused mainly on students' perceptions towards Written Corrective Feedback (WCF). All statements were close ended. Cronbach's alpha for pre-survey was 0.822, which displayed a very high internal consistency. The Cronbach's alpha for post-survey was 0.953, which also indicated a considerably high internal consistency.

Interview

In order to explore students' perceptions of their learning experiences and outcomes, this study employed semi-structured one-on-one interviews. Semi-structured interviews are commonly used in qualitative research as they allow for flexibility and the emergence of new ideas during the discussion (Harding, 2018). A total of 7 students from

the experimental group were selected for the interviews. The interview questions were adapted from previous studies, including Wang (2015) and Yu and Hu (2017), to capture students' perspectives on different types of feedback. Additionally, questions related to technology and overall learning experiences were adopted from Alghasab (2020) and Rayupsiri and Kongpetch (2014), respectively, to investigate students' attitudes and experiences in relation to the integration of technology and the process-genre approach.

Research procedures

The research for the experimental group commenced with a pre-test and pre-survey in the first week, followed by the teaching–learning process from week 2 to week 5. The post-test and post-survey were conducted in week 6, and the interview took place after the post-test. Throughout the study, two thematic areas, namely Nature and Environment and Science and Technology, were covered. Each theme spanned across 2 classes, and all classes utilized the process-genre approach instructional model. All writing tasks were assigned on the platform *writeabout.com*. Students received teacher and peer written and oral feedback also from the online platform *writeabout.com*. On the other hand, the control group received instruction through a conventional lesson plan with thematic content similar to that of the experimental group. The control group also underwent pre- and post-tests in the first and last week, respectively, and the actual lessons took place from week 2 to week 5 (Figs. 2, 3).

Data analysis

This study employed both quantitative and qualitative data analyses. Quantitative data analysis involved conducting descriptive and inferential statistics. The data were assessed for normality using skewness and kurtosis tests, indicating a normal distribution. Non-parametric tests were utilized due to the small sample size and robustness to violations of normality assumptions. SPSS version 28.0 was used to analyze students' perceptions of feedback and writing scores, calculating measures of central tendency and variability. The Wilcoxon Signed Rank Test examined the differences between pre- and post-test scores, while the Mann–Whitney–Wilcoxon test compared formative writing task scores. Spearman's correlation and Kendall–Theil regression were employed to explore relationships and predict future writing performance. For qualitative analysis, semi-structured interviews were recorded and transcribed verbatim. An inductive approach was used to identify emergent themes from the transcripts, following the steps outlined by Richards (2003). The recursive process involved coding, reviewing, and constructing themes through explicit and interpretative analysis.

Results

Quantitative findings

Students' perceptions

The descriptive statistics revealed the perceptions of students in the experimental group towards each type of feedback as follow:

Teacher Feedback. In the pre-survey, students had a high level of perception towards teacher feedback ($M=4.44$, $SD=0.68$), with item 4 scoring the highest ($M=4.57$, $SD=0.76$). In the post-survey, there was an increase in the level of perception towards

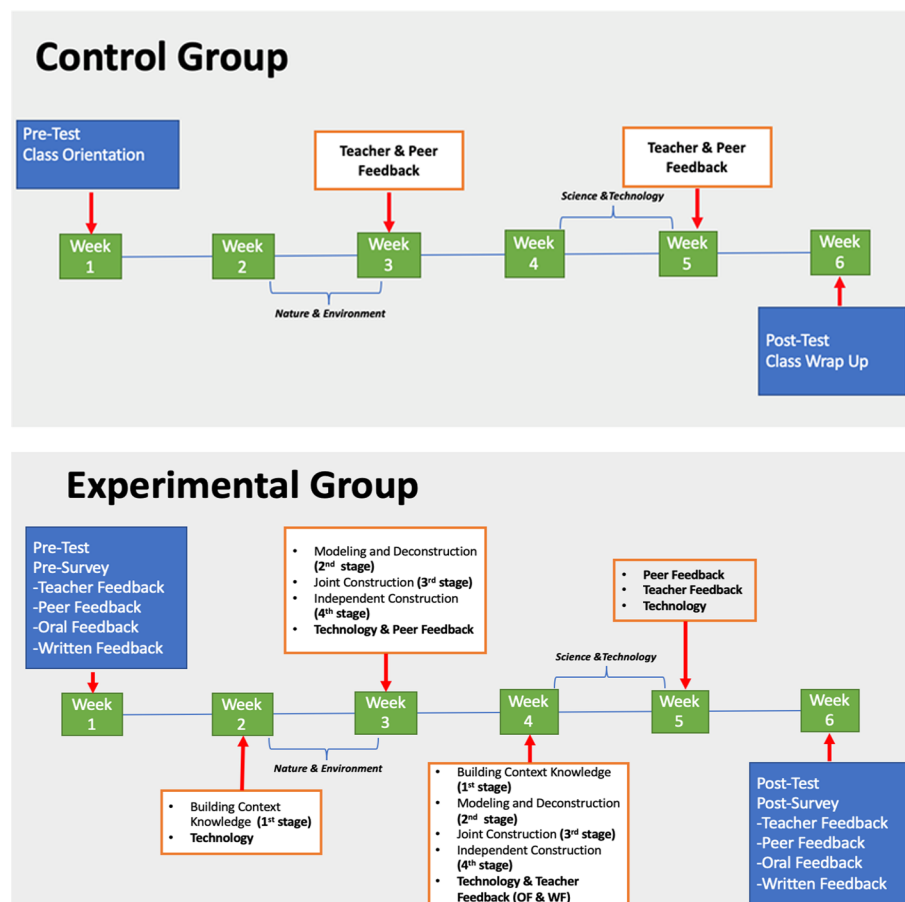


Fig. 2 Illustration of the research procedures in each group

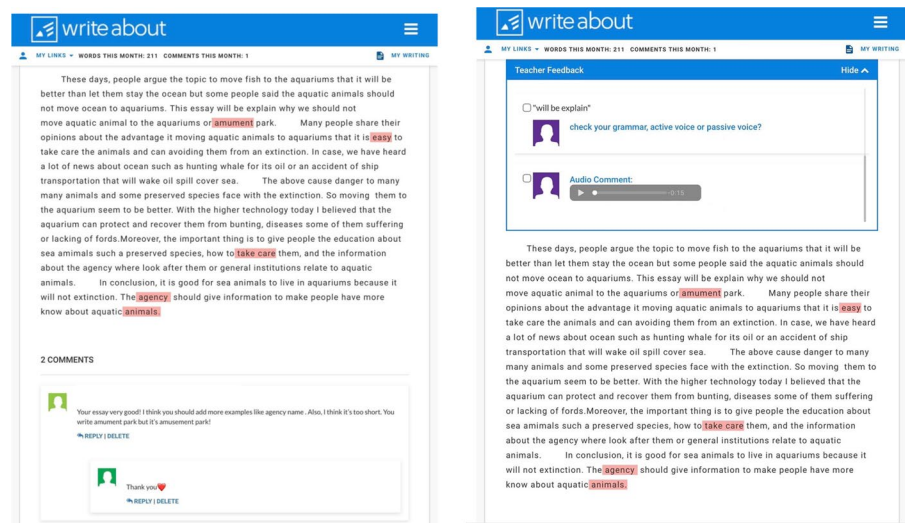


Fig. 3 Samples of the feedback activities in the experimental group on writeabout.com

teacher feedback ($M=4.63$, $SD=0.41$), except for item 1. Item 5 showed a significant increase in perception from the pre-survey ($M=4.43$) to the post-survey ($M=4.79$).

Peer feedback. Students perceived peer feedback highly in the pre-survey ($M=4.13$, $SD=0.55$), but the level of perception dropped slightly in the post-survey ($M=3.76$, $SD=0.85$). Several items, such as item 2 and item 4, showed decreased perceptions in the post-survey. The majority of SD values in the post-survey were higher than 1, indicating varied responses from students.

Oral Feedback. Students had a high level of perception towards oral feedback. Their perception decreased slightly after the intervention. Specifically, they perceived the importance and effectiveness of teachers' oral corrective feedback highly in the pre-survey. However, in the post-survey, their perception was lower for these items. They perceived the immediate timing of oral feedback more highly. (Pre-survey: $M=4.40$, $SD=0.46$; Post-survey: $M=4.15$, $SD=0.72$).

Written Feedback. Students had high perceptions towards written feedback. The pre-survey showed higher perceptions ($M=4.60$, $SD=0.42$) compared to the post-survey ($M=4.39$, $SD=0.79$). Specifically, students highly perceived the clarification of misconceptions about verb tense through written corrective feedback in the pre-survey ($M=4.79$, $SD=0.43$), but this perception significantly decreased after the intervention ($M=4.29$, $SD=0.91$).

Students' learning outcomes

In the experimental group, students showed improvements in the writing test scores, with the post-test mean ($M=4.58$, $SD=0.95$) being higher than the pre-test mean ($M=3.99$, $SD=0.88$). The criteria of "Task Response" had the highest mean in both pre-test and post-test. The control group also demonstrated improvement, with the post-test mean ($M=4.15$, $SD=0.97$) being higher than the pre-test mean ($M=3.78$, $SD=1.06$). In the control group, "Task Response" had the highest mean in both pre-test and post-test.

For formative writing tasks, in the experimental group, students scored higher in the second essay ($M=4.52$, $SD=0.79$) compared to the first essay. In the first essay, lexical resource had the highest mean score ($M=4.61$, $SD=0.66$), while task response came second ($M=4.54$, $SD=0.84$). In the second essay, task response showed the most improvement with the highest mean score ($M=4.71$, $SD=0.97$). In the control group, the second essay ($M=3.98$, $SD=0.84$) scored higher than the first essay ($M=3.85$, $SD=0.86$). In the first essay, lexical resource had the highest mean score ($M=4.04$, $SD=1.00$), while coherence and cohesion scored the lowest ($M=3.75$, $SD=0.85$). In the second essay, task response remained the highest ($M=4.25$, $SD=0.85$). Additionally, grammatical range and accuracy ($M=3.79$, $SD=0.99$) and coherence and cohesion ($M=3.79$, $SD=0.91$) received the same mean score.

Impacts of process-genre approach, feedback, and technology on students' writing skills

To evaluate the impact of a writing course integrating a process-genre approach, feedback, and technology on Thai EFL students' development of writing skills, non-parametric tests namely, Wilcoxon Signed Rank Tests, were conducted for both the experimental and control groups. For the experimental group, significant improvements were observed in the overall pre- and post-test scores ($Z=-2.42$, $p=0.02$). Specifically,

task response ($Z = -2.77, p = 0.00$) and lexical resource ($Z = -3.10, p = 0.02$) showed significant differences. However, there was no significant difference in coherence and cohesion ($Z = -1.00, p = 0.32$) or grammatical range and accuracy ($Z = -1.46, p = 0.145$). For the control group, no significant difference was found between the pre- and post-test scores ($p = 0.132$). However, there was a significant difference in task response ($Z = -2.487, p = 0.013$), while coherence and cohesion ($Z = -0.494, p = 0.621$), lexical resource ($Z = -0.618, p = 0.537$), and grammatical accuracy ($Z = -0.880, p = 0.379$) did not show significant changes. Regarding the formative writing tasks, in the experimental group, there was no significant difference between the mean scores of the first and second essays ($p = 0.311$). However, there was a significant improvement in task response ($p = 0.038$). In the control group, there was also no significant difference in the mean scores between the first and second formative writing tasks ($p = 0.662$).

Overall, the writing course incorporating the mentioned approaches and technology showed positive effects on the experimental group, particularly in task response and lexical resource. However, the control group did not exhibit significant improvements in their writing skills across the assessed criteria.

Relationships between students' perceptions and learning outcomes

Spearman's correlation was used to examine the relationship between students' perceptions of teacher feedback, peer feedback, written feedback, and oral feedback, as well as post-test results, specific criteria, and formative writing tasks 1 and 2.

Written and peer feedback correlated with a coefficient value of 0.533 and a p-value of 0.50. Written and spoken comments correlated strongly ($r = 0.802, p < 0.001$). Written comments still correlated with post-test scores ($r = 0.659, p = 0.01$). Task response linked with written feedback for 4 criteria ($r = 0.635, p = 0.015$). Written feedback also correlated with coherence, cohesiveness, lexical resource, and grammatical range and correctness ($r = 0.601, p = 0.023$). However, post-test score and its four categories did not correlate with students' evaluations of instructor, peer, and oral feedback.

For formative writing assignment 1 or Essay 1, student perceptions did not correlate with total score. Written feedback correlated well with task response ($r = 0.603, p = 0.022$). Written and oral feedback also had a high association with grammatical range and accuracy ($r = 0.581, p = 0.029$) and ($r = 0.548, p = 0.042$). Written and oral feedback correlated with lexical resource ($r = 0.725, p = 0.003$) and ($r = 0.569, p = 0.034$).

Qualitative findings

The thematic analysis of students' perceptions regarding the process-genre approach writing course, which integrates feedback and technology, revealed three themes: feedback valence, students' feedback preferences, and effectiveness of the online platform.

Theme 1: feedback valence

The feedback valence theme assessed the positivity or negativity of the feedback received by students and its impact on their perspectives. Positive perceptions emerged when students described feedback as supportive, motivating, and beneficial, enhancing their confidence and writing skills. Conversely, negative perceptions arose when feedback resulted in demotivation and decreased interest in writing. Students expressed positive

opinions regarding the feedback provided by their teacher through writeabout.com. They recognized its benefits in improving their writing skills and appreciated the teacher's efforts. They found the feedback effective in identifying areas for improvement.

I think the teacher's feedback on this course was very useful as it helped me to improve my writing skills. I took her feedback on content seriously as there were many points I overlooked. (S1)

When I saw many comments, I was afraid that my score would not be good. (S2)

I think my friend's feedback is good. I guess they try to be positive to not hurt my feelings. (S6)

I didn't like commenting on my friends. Most of the time, I didn't know what to comment on even though the teacher gave us explanations on what to look at. Also, I didn't find my friends' feedback useful. (S1)

Theme 2: students' feedback preferences

This theme focused on students' preferences and identified the types of feedback they valued most. Students expressed a preference for face-to-face private feedback from their teacher in a classroom setting. They believed that such interactions would allow for additional comments and guidance not available on an online platform. They emphasized the importance of dialogue with the teacher in enhancing their understanding of the material. Furthermore, students preferred personalized feedback targeting specific writing issues and had varying preferences for the type of correction they preferred.

I think teacher oral feedback should be done one on one in classroom. Listening to teacher's oral feedback online does not give me a chance to ask teacher for more suggestions. I think if it was a conversation, I would learn more. (S1).

I want aspect of feedback about the paragraph structure or how to plan outline with example. Sometimes, I don't know what to write so if the teacher can guide me by giving me an outline example of that topic, I will love that. (S6)

Theme 3: effectiveness of online platform

The use of writeabout.com as the online platform prompted discussions about its effectiveness. Students acknowledged that writeabout.com facilitated in-depth reflection on their work, motivated them to write, and encouraged the sharing of ideas. However, some students viewed the online platform as a distraction and expressed a preference for traditional pen-and-paper writing.

"I think I have tried harder because on writeabout.com people could see what I wrote. I was more careful, and I tried to avoid making silly mistakes. I didn't learn more from writeabout.com but this platform forced me to think carefully." (S4).

I prefer to write on paper more than on writeabout.com. I always feel like searching on google or using Grammarly to help me. On writeabout.com, I can copy and paste text that I already checked the grammar. Sometimes I did that. So, writeabout.com allows me to write anywhere and anytime but it distracts more." (S3)

Discussion

This study's main goal was to investigate how the process-genre approach, feedback, and technology may enhance Thai students' writing skills, which are yet insufficiently studied. The findings are therefore discussed in relation to students' learning experiences and outcomes, the impact of process-genre approaches, feedback, and technology integrations, and the interaction between students' learning experiences and the development of their writing.

Students' learning experiences and outcomes

Based on the analysis of students' learning experiences and outcomes, it was observed that the experimental group placed a higher value on teacher feedback compared to other forms of feedback. Both quantitative and qualitative findings supported this observation. Research by Hattie and Timperley (2007) emphasized the importance of timely, specific, and actionable teacher feedback in enhancing student learning outcomes. The qualitative results also indicated that students had less confidence in peer feedback due to its excessively positive and general nature, as highlighted by Yu and Lee (2014). Additionally, cultural factors, as demonstrated by Yu and Hu (2017), can influence the effectiveness of peer feedback. Consequently, the study suggests that teacher feedback tends to be more effective than peer feedback, attributed to subject matter expertise, familiarity, and cultural factors.

Regarding learning outcomes, the experimental group showed improvement in their writing abilities as evidenced by higher post-test scores compared to pre-test scores. The process-genre approach, incorporating feedback and technology, appeared to be particularly effective in enhancing students' use of vocabulary and language expression, as indicated by Huang and Zhang's (2020) study. In contrast, the control group also demonstrated improvement, but to a lesser extent. While they showed progress in content, organization, and language use, the control group's scores on "Coherence & Cohesion" did not align with prior research. Dokchandra (2018) highlighted that traditional instruction combined with feedback led to improvements in organization. Overall, both groups exhibited enhanced writing abilities, with the experimental group experiencing greater improvement, suggesting the effectiveness of the process-genre approach in conjunction with feedback and technology.

The impact of process-genre approach, feedback, and technology integrations

The quantitative findings of the experimental group indicated significant differences in pre and post-test scores, particularly in task response and lexical resource. However, there was no significant improvement in coherence and cohesion, as well as grammatical range and accuracy. This aligns with Badger and White's (2000) description of the process-genre approach, emphasizing the importance of teaching language skills within meaningful and genre-related contexts. The experimental group showed significant improvement in task response for formative writing tasks, suggesting the effectiveness of the process-genre approach, feedback, and technology integration. Hyland and Hyland (2006) suggested that instructional interventions such as feedback

and genre-based instruction can have a notable impact on students' ability to comprehend writing tasks.

The control group did not experience significant changes in pre and post-test scores, except for task response. This is consistent with the absence of intervention or treatment in the control group (Babalola, 2012; Guptasiri, 2013; Huang & Zhang, 2020). However, it is worth noting that the control group exhibited a wider range of writing proficiency than the experimental group, with some students having higher pre-existing writing skills. The unexpected improvement in task response for the control group may be attributed to their familiarity with assessment criteria and increased motivation. Feedback likely played a role in enhancing students' understanding of evaluation criteria and writing motivation, as supported by Dokchandra's (2018) research.

The use of technology, specifically writeabout.com, contributed to the significant improvement in lexical resources for the experimental group. This finding aligns with the benefits observed by Chang and Szanajda (2016) when combining blogging with a process-genre approach. The online platform allowed students to expand their vocabulary through reading and engaging in collaborative writing with their peers. The incorporation of writeabout.com's "Ideas" function facilitated students' exploration and learning from others' writing (Panmei & Waluyo, 2021). Regarding grammatical range and accuracy as well as coherence and cohesion, the quantitative results for the experimental group did not yield significant improvements. This contrasts with previous studies that demonstrated notable enhancement in text quality, particularly organization, coherence, and cohesion. The complexity and demands of the IELTS Academic Writing Task 2 used in this study, compared to simpler tasks like letter writing, may explain these differences (Jarunthawatchai, 2010; Zhang, 2018). Students with lower English proficiency and limited experience in academic writing might struggle with formal language requirements and academic structure.

The interplay between students' learning experiences and the development of their writing skills

The quantitative analysis of the experimental group demonstrated a significant association between written feedback and posttest scores, as well as specific post-test criteria. These findings challenge student preferences for oral feedback, as previous research consistently indicates the greater impact of written feedback on writing development (Chiang, 2004; Hyland & Hyland, 2006; Wen, 2013). Hubais and Dumanig et al. (2014) found that content-focused written feedback enhanced students' confidence, enthusiasm, and ability to revise their writing, leading to significant improvements in essay quality. The analysis of formative essays 1 and 2 revealed a strong correlation between written feedback and grammatical range and accuracy. Both direct and indirect corrections, along with feedback on content, were utilized, prompting students to carefully consider and revise based on the feedback provided. Prior studies consistently highlight the considerable influence of teacher-written feedback on grammatical accuracy (Chiang, 2004; Hyland & Hyland, 2006; Wen, 2013). Effective teacher-written feedback necessitates student reflection and implementation of the feedback provided. Additionally, the study identified a relationship between oral feedback and lexical resources. Students expressed a preference for oral

feedback from teachers, which aligns with the recognition of Sobhani and Tayebipour (2015) that it is highly effective and well-received by students, facilitating discussion and vocabulary acquisition. Moreover, students' provision of written corrective feedback to peers contributed to their own error awareness and learning from their peers' mistakes, as highlighted by Lei (2017). These findings support the qualitative results, indicating that students value peer feedback as a means of enhancing their writing skills.

Implications of the findings

The findings have several implications for higher education L2 writing courses. First, good instructor feedback improves student learning. Teachers should give timely, precise feedback to encourage student reflection and implementation. In addition, students should be trained to give constructive and culturally sensitive peer feedback. Second, the process-genre approach, feedback, and technology can greatly improve students' writing. L2 writing courses should include relevant and genre-related writing activities that encourage language acquisition and enable collaborative writing utilizing technology. Writing activities' difficulty should match students' competency levels and academic writing expectations. Creating a reflective writing environment where students receive criticism, modify their work, and own their writing process is important for their development.

Conclusion

This research investigated the efficacy of integrating the process-genre approach, feedback, and technology in EFL writing instruction. The findings showed positive effects on students' writing skills, particularly in task response and lexical resource. Written feedback was more effective than oral feedback, and peer feedback also yielded positive results. However, limitations in subject matter expertise and cultural factors influenced the preference for teacher feedback over peer feedback. The study emphasizes the importance of integrated language instruction, continuous feedback, and technology integration for enhancing students' writing abilities. Future research should address cultural factors, proficiency levels, and explore the potential of peer feedback training to enhance writing performance. Further investigations could consider longer durations, larger sample sizes, specific writing tasks, peer feedback training, and the impact of cultural factors on pedagogical practices.

Author contributions

Tipaya Peungcharoenkun conducted the research. Budi Waluyo served as research advisor. TP consulted regularly with BW through all stages from the development of research plan, instruments and measures, the analysis of data, to the discussion of research findings and conclusion. TP wrote the first draft of the manuscript and Budi provided feedback for improvements. Both authors read and approved the final manuscript.

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Availability of data and materials

The data will be made available upon request.

Declarations

Ethical approval

This study received approval from the Institutional Review Board (IRB) for human research conducted at Walailak University, Thailand (WUEC 22-185-01).

Competing interests

The authors declare no conflict of interest.

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References

- Alghasab, M. B. (2020). Flipping the writing classroom: focusing on the pedagogical benefits and EFL learners' perceptions. *English Language Teaching*, 13(4), 28–40.
- Alhaqbani, M. H. (2015). *Using MALL in the Saudi context: The case of WhatsApp in consolidating the writing skill of EFL preparatory year students at Al-Imam University* [M.A. Thesis, Al-Imam Muhammad Ibn Saud Islamic University].
- Aljahdali, W., & Alshakhi, A. (2021). Exploring EFL writing teaching through the integrated skills approach: A case study in the Saudi context. *Journal of Language Teaching and Research*, 12(5), 800–809. <https://doi.org/10.17507/jltr.1205.20>
- Assagaf, H. T. (2016). A process genre approach to teaching report writing to Arab EFL computer science students. *International Journal of English Linguistics*, 6(6), 8–18. <https://doi.org/10.5539/ijel.v6n6p8>
- Babalola, L. (2012). Effects of process-genre based approach on the written English performance of computer science students in a Nigerian polytechnic. *Journal of Education and Practice*, 3(6), 1–7.
- Badger, R., & White, G. (2000). A process genre approach to teaching writing. *ELT Journal*, 54(2), 153–160. <https://doi.org/10.1093/elt/54.2.153>
- Baleghizadeh, S., & Dadashi, M. (2011). The effect of direct and indirect corrective feedback on students' spelling errors. *Profile Issues in Teachers Professional Development*, 13(1), 129–137.
- Belmekki, A., & Sekkal, F. (2018). The effect of process-genre approach on ESL students' achievement in writing business letters. *European Journal of Research and Reflection in Educational Sciences*, 6(2).
- Berggren, J. (2015). Learning from giving feedback: A study of secondary-level students. *ELT Journal*, 69(1), 58–70. <https://doi.org/10.1093/elt/ccu036>
- Bernard, H. R. (2017). *Research methods in anthropology: Qualitative and quantitative approaches*. Rowman & Littlefield.
- Chang, W. Y., & Szanajda, A. (2016). How computer technology transforms writing performance: An integration of the process-genre approach and blogs in EFL writing courses. In: *International journal for 21st century education*, 3 (Special Edition), 169–185.
- Chiang, K. (2004). An investigation into students' preferences for and responses to teacher feedback and its implications for writing teachers. *Hong Kong Teachers' Centre Journal*, 3(1), 98–113.
- Creswell, J. W., Plano Clark, V. L., Gutmann, M. L., & Hanson, W. E. (2003). Advanced mixed methods research designs. *Handbook of Mixed Methods in Social and Behavioral Research*, 209(240), 209–240.
- Dokchandra, D. (2018). The effects of process writing approach on performance of an overcrowded EFL writing class at a university in Thailand. *KnE Social Sciences*. <https://doi.org/10.18502/kss.v3i4.1931>
- Dueraman, B. (2012). Teaching EFL writing: Understanding and rethinking the Thai experience. *Journal of Alternative Perspectives in the Social Sciences*, 4(1), 255–275.
- Gao, J. (2007). Teaching writing in Chinese university: Finding an eclectic approach. *The Asian EFL Journal*, 18, 1–2.
- Ghufron, M. A. (2016). Process-genre approach, product approach, and students' self-esteem in teaching writing. *Indonesian EFL Journal: Journal of ELT, Linguistics, and Literature*, 2(1), 37–54.
- Ghufron, M. A., & Nurdianingsih, F. (2021). Flipped classroom method with computer-assisted language learning (CALL) in EFL writing class. *International Journal of Learning, Teaching and Educational Research*, 20(1), 120–141. <https://doi.org/10.26803/ijlter.20.1.7>
- Goldstein, L. M. (2004). Questions and answers about teacher written commentary and student revision: Teachers and students working together. *Journal of Second Language Writing*, 13(1), 63–80. <https://doi.org/10.1016/j.jslw.2004.04.006>
- Guo, Y. (2005). A process genre model for teaching writing. *English Teaching Forum*, 43(3), 18–26.
- Gupitasari, H. (2013). The implementation of process-genre approach to teaching writing business letter. *Journal of English and Education*, 1(2), 23–30.
- Ha, X. V., Nguyen, L. T., & Hung, B. P. (2021). Oral corrective feedback in English as a foreign language classrooms: A teaching and learning perspective. *Heliyon*. <https://doi.org/10.1016/j.heliyon.2021.e07550>
- Harding, J. (2018). *Qualitative data analysis: From start to finish*. SAGE Publications Limited.
- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81–112. <https://doi.org/10.3102/003465430298487>
- Huang, Y., & Zhang, J. L. (2020). Does a process-genre approach help improve students' argumentative writing in English as a foreign language? Findings from an intervention study. *Reading and Writing Quarterly*, 36(4), 339–364. <https://doi.org/10.1080/10573569.2019.1649223>
- Hubais, A., & Dumanig, F. (2014). Form and content feedbacks in foreign language writing: The case of Omani learners of English. *Language in India*, 14(11), 3–16.
- Huisman, B., Saab, N., Van Driel, J., & Van Den Broek, P. (2020). A questionnaire to assess students' beliefs about peer-feedback. *Innovations in Education and Teaching International*, 57(3), 328–338. <https://doi.org/10.1080/14703297.2019.1630294>
- Hyland, F. (2000). ESL writers and feedback: Giving more autonomy to students. *Language Teaching Research*, 4(1), 33–54.

- Hyland, K. (2003). Genre-based pedagogies: A social response to process. *Journal of Second Language Writing*, 12(1), 17–29. [https://doi.org/10.1016/S1060-3743\(02\)00124-8](https://doi.org/10.1016/S1060-3743(02)00124-8)
- Hyland, K., & Hyland, F. (2006). *Feedback in second language writing: Contexts and issues*. Cambridge University Press.
- Jafarian, K., Soori, A., & Kafipour, R. (2012). The effect of computer assisted language learning (CALL) on EFL high school students' writing achievement. *European Journal of Social Sciences*, 27(2), 138–148.
- Jamalinesari, A., Rahimi, F., Gowhary, H., & Azizifar, A. (2015). The effects of teacher-written direct vs. indirect feedback on students' writing. *Procedia: Social and Behavioral Sciences*, 192, 116–123. <https://doi.org/10.1016/j.sbspro.2015.06.018>
- Janenoppakarn, C., & Thongrin, S. (2020). Enhancing medical and health science students' writing development through a modified process-genre approach. *Asian EFL Journal*, 24(2), 99–135.
- Jarunthawatchai, W. (2010). *A process-genre approach to teaching second language writing: Theoretical perspective and implementation in a Thai university setting* [Doctoral dissertation, University of Southampton]. University of Southampton Research Repository. <https://eprints.soton.ac.uk/349425/1/Binder1.pdf>
- Kessler, G., Bikowski, D., & Boggs, J. (2012). Collaborative writing among second language learners in academic web-based projects. *Language Learning and Technology*, 16(1), 91–109.
- Kim, Y., & Kim, J. (2005). Teaching Korean university writing class. *Asian EFL Journal*, 7(2), 1–15.
- Kusumaningrum, S. R., Cahyono, B. Y., & Prayogo, J. A. (2019). The effect of different types of peer feedback provision on EFL students' writing performance. *International Journal of Instruction*, 12(1), 213–224. <https://doi.org/10.29333/iji.2019.12114a>
- Lee, G., & Schallert, D. L. (2008). Constructing trust between teacher and students through feedback and revision cycles in an EFL writing classroom. *Written Communication*, 25(4), 506–537. <https://doi.org/10.1177/0741088308322301>
- Lei, Z. (2017). Saliency of student written feedback by peer-revision in EFL writing class. *English Language Teaching*, 10(12), 151–157. <https://doi.org/10.5539/elt.v10n12p151>
- Liou, H. C., Wang, S. H., & Hung-Yeh, Y. (1992). Can grammatical CALL help EFL writing instruction? *CALICO Journal*, 10(1), 23–44.
- Liu, J., & Hansen, J. G. (2002). *Peer response in second language writing classrooms* (2nd ed.). The University of Michigan Press.
- Lund, A. (2008). Wikis: A collective approach to language production. *ReCALL*, 20(1), 35–54. <https://doi.org/10.1017/S0958344006001>
- Lyster, R., & Saito, K. (2010). Oral feedback in classroom SLA: A meta-analysis. *Studies in Second Language Acquisition*, 32(2), 265–302. <https://doi.org/10.1017/S0272263109990520>
- Maolida, E. H., & Salsabila, V. A. (2019). Integrating process-genre approach with project IBUNKA to improve students' English writing. *English Review: Journal of English Education*, 8(1), 91–100. <https://doi.org/10.25134/erjee.v8i1.2057>
- Marefat, F. (2005). Oral feedback in an EFL writing context. *Pazhuhesh-e Zabanha-Ye Khareji*, 20, 101–118.
- Megawati, F., & Anugerahwati, M. (2012). Comic Strips: a study on the teaching of writing narrative texts to Indonesian EFL students. *Teflin Journal*, 23(2), 183–205. <https://doi.org/10.15639/teflinjournal.v23i2/183-205>
- Miao, Y., Badger, R., & Zhen, Y. (2006). A comparative study of peer and teacher feedback in a Chinese EFL writing class. *Journal of Second Language Writing*, 15(3), 179–200. <https://doi.org/10.1016/j.jslw.2006.09.004>
- Nguyen, T. T., & Suwannabubpha, S. (2021). EFL writing at Thai secondary schools: teachers and students' views. *Difficulties and Expectations. Language Related Research*, 12(3), 187–214. <https://doi.org/10.29252/LRR.12.3.7>
- Noom-ura, S. (2013). English-teaching problems in Thailand and Thai teachers' professional development needs. *English Language Teaching*, 6(11), 139–147. <https://doi.org/10.5539/elt.v6n11p139>
- Nordin, S. M. (2017). The best of two approaches: Process/genre-based approach to teaching writing. *The English Teacher*, 11, 75–85.
- Panmei, B., & Waluyo, B. (2021). Writing classes with writeabout.com: Learning mode, feedback, and collaboration. *Studies in Self-Access Learning Journal*, 12(4), 397–402. <https://doi.org/10.37237/120406>
- Pratiwi, D. I., & Waluyo, B. (2022). Integrating task and game-based learning into an online TOEFL preparatory course during the COVID-19 outbreak at two Indonesian higher education institutions. *Malaysian Journal of Learning and Instruction (MJLI)*, 19(2), 37–67. <https://doi.org/10.32890/mjli2022.19.2.2>
- Puengpipattrakul, W. (2014). A process approach to writing to develop Thai EFL students' socio-cognitive skills. *Electronic Journal of Foreign Language Teaching*, 11(2), 270–284.
- Pujianto, D., & Emilia, E. (2014). A process genre approach to teaching writing report text of senior high school students. *Indonesian Journal of Applied Linguistics*, 4(1), 99–110. <https://doi.org/10.17509/ijal.v4i1.603>
- Rabiee, M. (2010). Facilitating learning to gather in Iranian context: Three collaborative oral feedback models in EFL writing classes. *Sino-US English Teaching*, 7(3), 10–22.
- Rayupsri, K., & Kongpetch, S. (2014). Implementation of the process-genre approach in an English as a foreign language classroom in Thailand: A case study. *Rangsit Journal of Educational Studies*, 1(2), 32–53. <https://doi.org/10.14456/rjes2014.10>
- Richards, K. (2003). *Qualitative inquiry in TESOL*. Springer.
- Rofiah, N. L., Aba Sha'ar, M. Y. M., & Waluyo, B. (2022). Digital divide and factors affecting english synchronous learning during COVID-19 in Thailand. *International Journal of Instruction*, 15(1), 633–652.
- Roothoof, H., & Breeze, R. (2016). A comparison of EFL teachers' and students' attitudes to oral corrective feedback. *Language Awareness*, 25(4), 318–335. <https://doi.org/10.1080/09658416.2016.1235580>
- Saadi-Ali, F. (2021). Overlap and repair of turn-taking system during collaborative oral peer-feedback in an EFL writing course. *International Journal of Social Sciences and Educational Studies*, 8(2), 128–134. <https://doi.org/10.23918/ijsses.v8i2p128>
- Safda, D. U. D., & Refnaldi, R. (2019). The use of writeabout.com as a platform to teach writing in senior high school. *Journal of English Language Teaching*, 8(3), 365–371.
- Saito, S. (2010). *An analysis of argumentative essays of Thai third-year english majors instructed by integrated process-genre approach* [Unpublished Master's thesis, Sarinakhathinwirot University].
- Samuel, A., & Akther, M. (2021). Students' perceptions and preferences about teachers' written corrective feedback at secondary level. *Bulletin of Education and Research*, 43(1), 45–58.

- Singh, K., & Tan, B. H. (2017). Effects of structured peer feedback on secondary school students' text revision. *Malaysian English Language Teaching Association*, 45(3), 126–143.
- Sobhani, M., & Tayebipour, F. (2015). The effects of oral vs. written corrective feedback on Iranian EFL learners' essay writing. *Theory and Practice in Language Studies*, 5(8), 1601–1611. <https://doi.org/10.17507/tpls.0508.09>
- Sun, Z., & Qiu, X. (2014). Evaluating the use of wikis for EFL: A case study of an undergraduate English writing course in China. *International Journal of Information Technology and Management*, 13(1), 3–14.
- Tesfie, A. (2017). Teachers' cognition on process genre approach and practice of teaching writing skills in efl context. *English for Specific Purposes World*, 54(19), 1–17.
- Thongchalem, S., & Jarunthawatchai, W. (2020). The impact of genre based instruction on EFL learners' writing development. *International Journal of Instruction*, 13(1), 1–16. <https://doi.org/10.29333/iji.2020.1311a>
- Tian, L., & Li, L. (2018). Chinese EFL learners' perception of peer oral and written feedback as providers, receivers and observers. *Language Awareness*, 27(4), 312–330. <https://doi.org/10.1080/09658416.2018.1535602>
- Ur, P. (1996). *A course in language teaching*. Cambridge University Press.
- Vattøy, K.-D., & Smith, K. (2019). Students' perceptions of teachers' feedback practice in teaching English as a foreign language. *Teaching and Teacher Education*, 85, 260–268. <https://doi.org/10.1016/j.tate.2019.06.024>
- Wakabayashi, R. (2013). The effects of the peer feedback process on reviewers' own writing. *English Language Teaching*, 6(9), 177–192. <https://doi.org/10.5539/elt.v6n9p177>
- Waluyo, B. (2020b). Thai EFL learners' WTC in English: Effects of ICT support, learning orientation, and cultural perception. In *Humanities, Arts and Social Sciences Studies (former name Silpakorn University Journal of Social Sciences, Humanities, And Arts)*, 20(2)477–514.
- Waluyo, B. (2020a). Learning outcomes of a general English course implementing multiple e-learning technologies and active learning concepts. *Journal of Asia TEFL*, 17(1), 160–181. <https://doi.org/10.18823/asiatefl.2020.17.1.10.160>
- Waluyo, B., & Apridayani, A. (2021). Teachers' beliefs and classroom practices on the use of video in English language teaching. *Studies in English Language and Education*, 8(2), 726–744.
- Waluyo, B., Apridayani, A., & Arsyad, S. (2023). Using writeabout as a tool for online writing and feedback. *TESL-EJ*. <https://doi.org/10.55593/ej.26104int>
- Waluyo, B., & Bakoko, R. (2021). Vocabulary list learning supported by gamification: Classroom action research using quizlet. *Journal of Asia TEFL*, 18(1), 289–299.
- Wang, Y. C. (2015). Promoting collaborative writing through wikis: A new approach for advancing innovative and active learning in an ESP context. *Computer Assisted Language Learning*, 28(6), 499–512. <https://doi.org/10.1080/09588221.2014.881386>
- Wen, Y. (2013). Teacher written feedback on L2 student writings. *Journal of Language Teaching and Research*, 4(2), 427–431.
- Wichadee, S. (2010). Using wikis to develop summary writing abilities of students in an EFL class. *Journal of College Teaching and Learning (TLC)*, 7(12), 5–10. <https://doi.org/10.19030/tlc.v7i12.951>
- Wichanpricha, T. (2020). Roles of feedback to english writing improvement: Thai EFL novice writers in higher education. *Journal of Educational and Social Research*, 10(6), 133–133. <https://doi.org/10.36941/jesr-2020-0115>
- Yan, G. (2005). A process genre model for teaching writing. *English Teaching Forum*, 43(3), 18–26.
- Yu, S., & Hu, G. (2017). Understanding university students' peer feedback practices in EFL writing: Insights from a case study. *Assessing Writing*, 33, 25–35. <https://doi.org/10.1016/j.asw.2017.03.004>
- Yu, S., & Lee, I. (2014). An analysis of Chinese EFL students' use of first and second language in peer feedback of L2 writing. *System*, 47, 28–38. <https://doi.org/10.1016/j.system.2014.08.007>
- Zaghlool, Z. D. (2020). The impact of using CALL online writing activities on efl university students' writing achievement. *Theory and Practice in Language Studies*, 10(2), 141–148. <https://doi.org/10.17507/tpls.1002.01>
- Zhang, M. (2018). Collaborative writing in the EFL classroom: The effects of L1 and L2 use. *System*, 76, 1–12. <https://doi.org/10.1016/j.system.2018.04.009>
- Zhao, H. (2018). Exploring tertiary English as a Foreign Language writing tutors' perceptions of the appropriateness of peer assessment for writing. *Assessment and Evaluation in Higher Education*, 43(7), 1133–1145. <https://doi.org/10.1080/02602938.2018.1434610>

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