Promoting the Development of Instructional Design by Integrating Technology in Language Learning

Maria Vineki Riyadini; Anita Triastuti

Universitas Negeri Yogyakarta, Indonesia

Abstract

Language teachers are constantly creating, adapting, and evaluating teaching materials to create an instructional design that meets the needs of their learners. Developing instructional designs based on needs that engage learners in an effective and affective manner is crucial in improving the teaching and learning processes. One of the ways to develop the instructional design is through action research. This study attempted to illustrate how technology integration can promote instructional design development. The researcher used observations, interviews, and surveys to collect the qualitative data. Meanwhile, pre- and post-test was used to collect quantitative data. The qualitative data analysis employed the Interactive Model. On the other hand, the quantitative data analysis process was performed through the mean score comparison. The results showed some improvements in the learners' English competencies. Furthermore, the researcher developed a novel instructional design in collaboration with learners, who were vigorously engaged in the process by providing feedback on daily reflection forms. Findings included the improvement of learner engagement and participation in learning. Furthermore, this study discovered the learners' preferences regarding learning activities, online platforms, and topics for discussion. Finally, the study examined the implications of integrating technology in the learning process to develop a needs-based instructional design.

Keywords: *Action Research; English Club; Instructional Design; Materials Development; Technology Integration*

1. Introduction

The issue of instructional design and materials development has received considerable critical attention. Language teachers create, change, and assess teaching materials regularly in order to develop an instructional design and materials development that matches the needs of their learners. It is critical to improving the teaching and learning processes by developing a needs-based syllabus as context-specific materials that consistently and effectively engage learners (Edwards & Burns, 2016; Mallahi & Saadat, 2018; Perren, 2013). Despite the fact that published textbooks contain the essential components of English, teachers must be able to adapt or create materials for their individual, local settings in order to meet the needs of their learners (Edwards & Burns, 2016; Graves & Garton, 2015; Tomlinson, 2012). However, there is little published data on this topic, particularly in relation to an English Club program.

As a result, much uncertainty still exists about how language teachers can adapt or develop their instructional design.

1.1. The Importance of Instructional and Materials Development by Teachers

Language teachers are encouraged to reflect on their practice and establish principles and structured procedures for material adaptation in accordance with the guidelines (Chawes Enciso, 2018; Edwards & Burns, 2016; Tomlinson, 2012). Teachers should be able to assess resources, whether from published course books or their creations. A research-oriented framework is currently required in order to obtain more reliable results as proof to guide future developments (Edwards & Burns, 2016). Teachers should be significantly more involved in material adaptation than at present because they play an essential role in instructional development. Teachers frequently encountered discrepancies between the course book and other aspects such as the local curriculum, teachers' beliefs, and learners' needs.

There are few resources for teachers on systematic materials production or adaptation procedures, especially empirical studies (Edwards & Burns, 2016; Graves & Garton, 2015). Jolly and Bolitho are valuable resources (2011). They advocate for a method in which teachers collaborate closely with their students, providing feedback and suggestions incorporated into new, adapted materials (Jolly & Bolitho, 2011). Their practical methodology guides teachers through a six-step process that includes identifying and analyzing the need for material development or adaptation and developing, implementing, and evaluating materials. According to Jolly and Bolitho, materials development should typically target specific learners, and teachers are the best people to understand their learners' needs (Jolly & Bolitho, 2011). Teachers who are given the necessary training and framework can develop very effective instructional designs.

Rashidi and Safari (2011), on the other hand, present a framework for the creation of English as a foreign language (EFL) materials that are based on five key factors: program, teacher, learner, content, and pedagogical (Rashidi & Safari, 2011). Although Rashidi's 11 design principles for English Language Teaching (ELT) materials are a valuable resource for teachers, the study fails to define a cohesive process for putting the principles into practice.

Furthermore, while acknowledging the value of the previous study, Garton and Graves (2014) note that the literature currently lacks information on how teachers use materials to teach learners, their insights and decision-making, and their attitudes toward and use of materials (Garton & Graves, 2014). Some research has been conducted to address this gap (Bosompem, 2014; Majthoob, 2014), which investigates material adaptation to meet the needs of the learners. The current paper contributes to this approach by describing how action research promoted a materials development framework.

1.2. Action Research as a Framework for Materials Development

One of the ways to develop the instructional design is through action research (AR). Teachers increasingly use action research to renew their practice by investigating educational interests, difficulties, and concerns in their classrooms (A Burns, 2017; Anne Burns, 1999). In Indonesia, the Ministry of Education promotes AR as part of English language teacher professional development. In addition, it encourages the incorporation of AR components into pre-service and in-service teacher education programs. However, there is still a scarcity of documented research on teachers' experiences with AR, particularly in the context of the English Club program.

Action research is a study conducted by social environment members who are active agents and investigators in their community of practice (Ampartzaki et al., 2013). Action research in language teaching is typically conducted by teachers who want to investigate various aspects of teaching or learning in the classroom. It entails carrying out a systematic yet dynamic research process to understand classroom practices better and improve the conditions for existing teaching and learning processes (A Burns, 2014).

Action research is now widely advocated for teaching practitioners seeking more profound insights into their practices, renewing their pedagogical approaches in their local contexts, and accommodating recent innovations or changes in teaching approaches (A Burns, 2009). This close involvement and encouragement may result in long-term developments in teaching practices (Edwards & Burns, 2016; Wyatt & Dikilitaş, 2016). Furthermore, because it is both efficient and research-oriented, action research is an excellent framework for material development (Eden & Ackermann, 2018).

Identifying challenges, constructing questions and testing hypotheses, collecting, analyzing, and interpreting data, as well as taking action, are all common steps in action research (Kuo, 2015). In other words, action research entails a three-step process: look, think, and act. When a study focuses on a practical problem or issue in the community, the results should be used to help the practitioner grow professionally (Creswell, 2013). Practitioners must illustrate sufficient substantive knowledge and collect and evaluate numerous quantitative and qualitative data sources to address an inquiry and create a rationale for action research claims (Creswell, 2015).

The teacher-researcher identifies areas or topics for investigation relevant to their teaching context and plans actions to improve and deepen understanding of the current situation. The teacher-researcher then observes and documents what occurs as a result of these actions in a systematic manner. Changes in practice and research findings can be unpredictable, resulting in new directions for future action, which can then be observed and documented.

1.3. The Importance of Integrating Technology in Language Learning

There has been an increase in interest in online teaching and learning processes in recent years. Technology-enhanced learning (TEL) is widely used as any form of online learning with technology (Dunn & Kennedy, 2019). It is believed that TEL leads to some pedagogical benefits. Researchers have argued that TEL promotes independent learning, in which the learners take charge of their learning (Saye & Brush, 2007; Zhou & Wei, 2018). In addition, TEL can accommodate the learners to learn based on their interests at their own pace (Beetham & Sharpe, 2013; Kirkwood & Price, 2014).

Several studies have been conducted to determine the impact of online learning in education, effective online learning teaching strategies, and factors that support the online learning process in order to achieve the desired learning objectives (Coccetta, 2018; Dunn & Kennedy, 2019; Lee & Choi, 2017; Tran & Duong, 2018; Zhou & Wei, 2018). Learners can develop their digital, linguistics, and communicative skills through virtual exchanges or telecollaboration in online learning.

Web 2.0 platforms, also known as social networking platforms, including blogs, wikis, podcasting, and e-portfolios, have grown in popularity as teaching tools in language classrooms over the last decade, providing an ideal e-learning context through mobile learning (Angelaina & Jimoyiannis, 2012). In addition, web 2.0 apps include various features that transform the learning environment by enabling content and resource sharing and self-directed and collaborative learning (Bower et al., 2010; Jimoyiannis et al., 2011; McLoughlin & Lee, 2010).

Furthermore, recent research findings provide compelling evidence of encouraging student autonomy throughout the learning process. As a result, teachers can employ mobile pedagogy in the classroom and when developing learning activities for use outside the classroom (Hulme Kukulska et al., 2015). They can investigate the characteristics of mobile pedagogy for language learning and teaching and how to implement mobile pedagogy for learning. Based on these considerations, this study seeks to integrate online platforms to aid the teaching and learning process in the English Club program.

This study will describe how action research can promote the development of the instructional design of an English Club to keep the research focused and measurable. This study's main objective was to improve an English Club's instructional design by integrating technology into instructions.

Furthermore, this study attempted to improve the instructional design of an English Club by integrating technology into language learning through action research. It specifically aimed to achieve the following objectives:

1. To identify English Club members' learning needs and preferences regarding learning activities, online platforms, and topics for discussion.
2. To improve English Club members' English competencies by developing an innovative instructional design in negotiation with learners, who were actively involved in the process by contributing through daily reflection forms.
3. To illustrate how action research can be used to promote instructional design development.

The research problem was formulated in the following question: "How can the action research promote the development of the instructional design of an English Club?". In order to answer this research problem, this study employed mixed-method research with both qualitative and quantitative data. The results showed some improvements in the learners' English competencies.

2. Method

2.1. Research Procedure

In line with the objectives of this study, this action research attempted to improve the instructional design of an English Club by integrating technology into language learning. Action research is a type of self-reflective inquiry conducted by participants in social situations in order to improve the rationality and justice of their social and educational practices, as well as their understanding of these practices and the contexts in which they are carried out (Kemmis, 2015; Titchen, 2015; Whitehead, 2019). This kind of study allows the researcher to apply an instrument and to see how the instrument works to achieve the objective or, in other words, to improve the condition by solving the problems.

As it will be conducted in a particular setting, the researcher tried to understand the typical characteristics and situations of the study. Researchers could carry out various action research models in their research studies. However, in this study, the researcher implemented the action research spiral model developed by Kemmis, McTaggart, and Nixon (2014). This model consisted of four main steps in each cycle of the study: (1) planning, (2) action, (3) observation, and (4) reflection. The cycle of this study can be visually seen in the figure provided below.
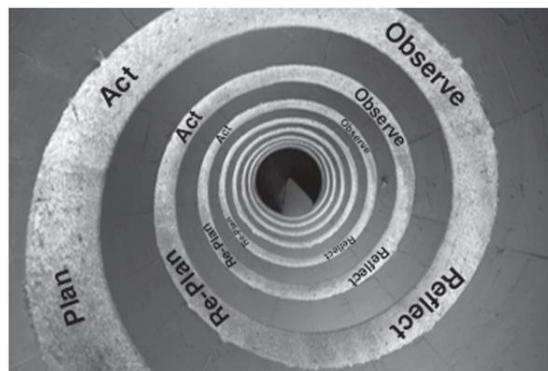

Figure 1: The Action Research Spiral Model (Kemmis, S., McTaggart, R., & Nixon, 2014)

In the planning stage, the researcher collected information on the learners through an online questionnaire to discover the demographic data, learners' characteristics, needs, and preferences. Afterwards, the researcher formulated some actions to be implemented and reflected on later. Next, the researcher implemented the actions in the classroom and took notes on what happened during the action process. Then, the researcher observed the action's implementation by analyzing the actions' results.

In the reflection stage, the researcher evaluated and reflected on the implementation of the action. The evaluation was based on the data obtained in the observation. Besides, the data were also gained from the interview with learners. The researcher did it to determine the relation of the actions to improving learners' English competencies. If the actions were successful, those actions would not be continued. On the other hand, if they were unsuccessful, the researcher would recycle them with some improvements in the next cycle.

2.2. Research Subjects

This action research involved 35 learners who joined the English Club, one of the State University's Yogyakarta campuses. The English Club is not mandatory. All learners who want to join can register themselves for this program. The learners come from different study programs. Of the 35 learners, 27 were females (77.14%), and eight were male learners (22.86%). Their ages were between 17-20 years old. On a typical day, most learners speak Indonesian (48.57%), Indonesian, and the local language (40%), and a smaller number speak Indonesian, the local language, and English. Most of the learners wish to be businessmen (25.71%), lecturers (20%), teachers (11.43%), and other professions which require English proficiency. Based on this, they are motivated to improve their English competencies.

2.3. Data Collection

This study used a mix-method by using both qualitative and quantitative data. The qualitative data in this study were in interview transcripts, field notes, and the answers to the questionnaires. Meanwhile, the quantitative data was in the form of pre-test and post-test scores.

This study was conducted in four cycles. Each cycle consisted of three meetings. The needs assessment questionnaires were distributed at the first meeting of cycle 1 to collect data on learners' needs. In addition, the researcher conducted a pre-test in the first meeting in cycle one and a post-test in the last meeting of cycle 4. The detailed steps of the cycles can be seen in the following figure.
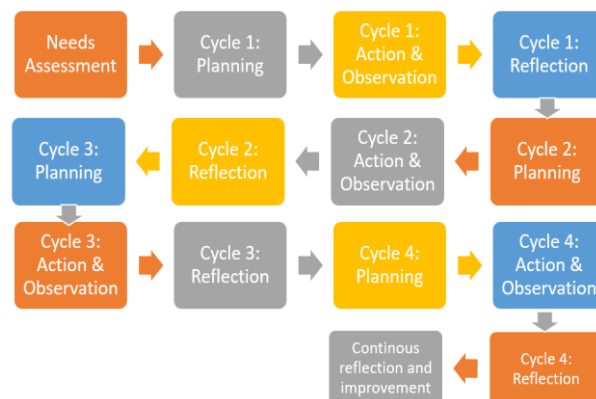

Figure 2: The Action Research Cycles

2.4. Data Analysis

Thematic analysis was used to analyze the transcribed interviews in relation to the study's research questions. In the interview transcriptions, pseudonyms were used to guarantee the privacy and anonymity of the research participants. The qualitative data analysis employed the Interactive Model, which consisted of four steps: data collection, condensation, data display, and conclusion drawing (Miles et al., 2014). Meanwhile, the analysis for the quantitative data used the comparison of the mean scores. The data analyzing process employed in this study consists of four stages, described as follows.

2.4.1 Data Collection

The data collected in this study were in the form of interview transcripts, field notes, and answers to the questionnaires. In addition, the data were collected using the research instruments, namely interview guidelines, observation checklists, and online questionnaires.

2.4.2 Data Condensation

In this stage, the researcher selected, focused, simplified, abstracted, looked at the themes and patterns, and discarded unnecessary data. In the data condensation phase, the researcher focused on the teaching and learning processes, from pre-activity to post-activity. The process of reducing and displaying the data was based on the formulation of the research question.

2.4.3 Data Display

In the next step, the researcher displayed those data in the form of descriptive or narrative text. The data display phase was also in graphics, matrix, and charts (Miles et al., 2014). In general, the data display included the original issue or questions underlying the study, describing the study context, outlining the findings supported by the sample data, relating the findings to the context, and suggesting how the project would give feedback into practice so that it would be useful for future study.

2.4.4 Conclusion Drawing/Verifying

The final step was to draw or verify the conclusion. The conclusion was reached after the data had been gathered by making a provisional conclusion. In other words, the conclusion was continuously analyzed, and the validity was verified to obtain the perfect conclusion to demonstrate that action research promotes the development of the English Club's instructional design.

On the other hand, the quantitative data were analyzed using the statistics software SPSS. The descriptive analysis was used to determine the mean and standard deviation scores. Because the percentage marks for the pre-and post-test were collected from the same students, the paired sample t-test was used to determine whether there was a significant difference in pre-and post-test scores. Finally, the pre-test and post-test data were computed to determine the effectiveness of the actions.

3. Findings and Discussions

This paper begins with the main research question: "How can the action research promote the development of the instructional design of an English Club?". The results of the data analysis give answers to this research question and obtain the research objectives. The answers to the research question have been answered through the steps in action research from needs analysis, planning, action, observation, and reflection.

First, in the needs assessment, the questionnaire results identified the English Club members' learning needs and preferences regarding learning activities, online platforms, and topics for discussion. Then, in the planning stage, the researcher administered the needs analysis as the basis for decision-making on the actions to be implemented. Through the needs analysis, the researcher has discovered:

1. The learners' demographic data include age, gender, the language they speak, hobbies, and goals for learning English.
2. Most learners have no particular preference for right or left-brain dominance (51.43%). However, fewer learners have a moderate left-brain preference (34.29%), and the rest is a moderate right-brain preference. Based on this, the researcher considered right and left-brain dominance characteristics in instructional design to suit the learners' needs.
3. In terms of learning styles (VAK), the results showed that most of the learners (48.57%) are visual learners, 31.43% of the learners are categorized as kinesthetic learners, and the rest of them (20%) are auditory learners. The researcher got the idea of the suitable learning media and activities that suit the learners' learning styles.

4. The next item discovered their English learning experiences and common problems they faced in learning English. Most learners stated that they have difficulty understanding texts and using suitable grammar based on context.
5. The learners' necessities, lacks, wants, and topics they want to learn.
6. Suggestions and requests they want to tell the teacher before the English Club program is held. The majority of the learners want to have more practice to master the language. In addition, they wish to do some games and increase their confidence in speaking.

Second, this study attempted to improve English Club members' English competencies by developing an innovative instructional design in negotiation with learners. The learners were actively involved in the process by contributing through daily reflection forms. After each meeting, the learners will write a reflection based on their learning process. Based on the action and observation of the study, there were some changes in the effects of the action research implementation in each cycle. Those changes were related to the study setting's English teaching and learning process and the student's learning behaviour. These were because of the integration of various online platforms and supporting actions. The changes and improvements are elaborated on in the following paragraphs.

In Cycle 1, the researcher implemented the instructional design based on the needs analysis results. To support this process and help the learners engage more with the learning process, some online platforms such as Mentimeter for brainstorming activities, Padlet for writing activities, and Google form for pre-test and writing daily reflection. After analyzing learners' perceptions of these activities, collected via daily reflections, the researcher concluded that the individual tasks worked well. However, they are not very fond of group work with more than two people. The reason is that sometimes their friends don't want to talk, so it's ineffective and makes them bored and confused in doing their task. In terms of online platforms, they enjoyed using Mentimeter and Padlet. They stated that Padlet is more user-friendly and exciting than Google Documents.

The researcher's reflection on the results of Cycle 1 led to re-conceptualizing the instructional design in Cycle 2. In line with Cycle 1, in Cycle 2, individual tasks went smoothly. Regarding the online platform, the researcher introduced Answer Garden for brainstorming and Tricider for writing opinions (pros and cons). A questionnaire was used to collect data in Cycle 2; the researcher's analysis of the responses showed that her learners could express their ideas better than in Cycle 1. They prefer to use Mentimeter than Answer Garden for brainstorming. As for Tricider, they stated that it was new for them, but they enjoyed using it.

The activities in cycle 3 involved pair work and group work activities. The activity started with brainstorming and discussion, followed by a presentation and reflection task. Based on the learners' responses, they immensely enjoyed the pair work activity. Each member is assigned the group work with guided roles in this cycle. This leads to better teamwork and smooth discussion because each member has different roles to contribute to their team. The researcher introduced a Wheel of Names to randomly pick the name to present first in terms of the online platform. Then, the researcher used Quizziz to review the materials for the assessment, and the learners enjoyed it more than Google Forms.

In Cycle 4, another activity to use in class was created that would continue to focus learners on their learning goals. The activities used the Word wall platform to play a card game to answer questions and use input videos as the basis of discussion. Overall, the learners enjoyed the learning activity. However, they also stated that they preferred to have videos than pictures as input. In addition, based on daily reflection, the learners prefer to have a classical discussion (34.29%), pair-work (28.57%), or individual work (25.71%) more than group work (11.43%) in online classes.

Furthermore, this study attempted to improve English Club members' English competencies by developing an innovative instructional design in negotiation with learners, who were actively involved in the process by contributing through daily reflection forms. Most learners (45.71%) stated that writing daily reflection after each meeting is beneficial for them to monitor their learning progress. A smaller number of the learners (34.29%) said it was useful to remember what they had learned and some unclear

things. The rest of the learners (20%) expressed that daily reflection is quite useful to support their learning processes. They stated that:

"Yes, it is very helpful, especially when we need to recall lessons or materials taught previously. We also have to fill in the obstacles or problems we face during learning. It makes us automatically reflect on ourselves, what is lacking and what still needs to be improved" – S12.

"It was very helpful because the teacher knows more about the needs of their learners, and teaching will be more effective" – S9.

"I think daily reflection is very helpful in monitoring my learning progress and helping me to remember learning materials." – S10.

Reflection is an essential component of enhancing teaching and learning quality. In relation to that, in this study, daily reflections in action research helped develop the awareness of the learners' learning processes. It enables them to carefully examine what they have learned, the topic they have not understood yet, and what they want to learn more about and trains them to do self-assessments for their learning process each day. They also can check on whether their goals in learning have been achieved or not.

Through this study, the researcher discovered the learners' preferences regarding the online platforms they enjoyed the most for their online learning. Therefore, the rank order of the most favourite online platforms is based on learners' preferences until the less preferable ones are depicted in the figure below.
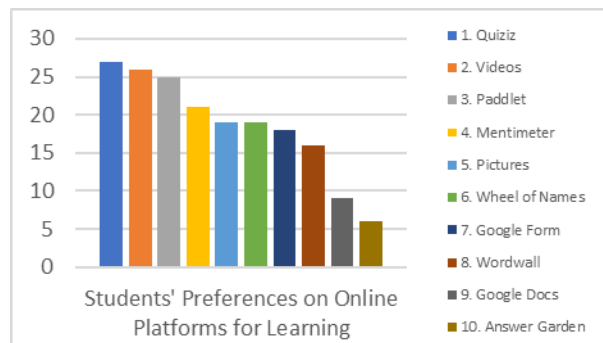

Figure 3: The Rank of Learners' Preferences on Online Platforms

Most learners enjoyed using various online platforms for interaction, assessments, and real-time quizzes. They stated that:

"It was very pleasant. I like the learning model that the teacher provides, not only theory but also practice, quizzes, and lots of discussions. It's really fun and not boring" – S8

"I like when there is break time in learning between the material, so I don't get bored easily" – S2

"The teacher's teaching is perfect, very up to date by using interactive online platforms. There's nothing I don't like, everyone likes it! <3" – S3

Furthermore, through this study, the researcher discovered the learners' preferences regarding the topics for discussion. Therefore, the rank order of the most favourite topics is based on learners' preferences until the less preferable ones are depicted in the following figure.
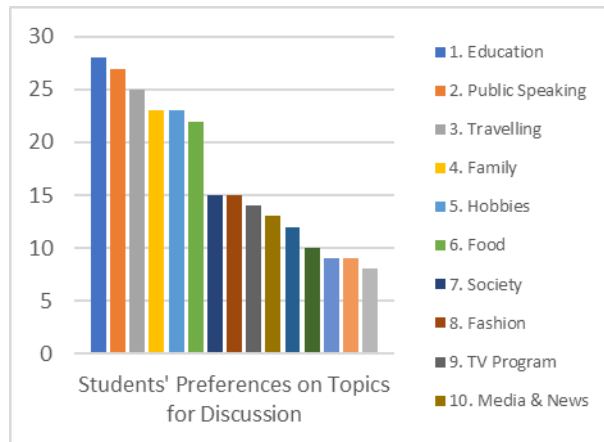
Figure 4: The Rank of Learners' Preferences on Topics for Discussion

Last but not least, the results of this study revealed that the actions cause a significant improvement in learners' English competencies. The detailed results can be seen in the following tables.

Table 1: Paired Samples Statistics

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	67.6571	35	11.89647	2.01087
	Posttest	83.0571	35	11.13538	1.88222

Table 2: Paired Samples Correlations

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pretest & Posttest	35	-.159	.362

Based on the data, it showed that the two data have a negative correlation. A negative correlation, also known as an inverse correlation, between two variables indicates that one variable increase while the other decreases. This indicates that both variables are moving in opposing directions.

Table 3: Paired Samples T-Test

Paired Samples Test

	Paired Differences							
				95% Confidence Interval of the Difference				
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1 Pretest - Posttest	-15.40000	17.53853	2.96455	-21.42470	-9.37530	-5.195	34	.000

There are no missing data in the analysis above. The two variables have the same N, which is 35 learners. According to the data analysis, it can be inferred that the alternative hypothesis is accepted because the significance level is smaller than 0.05. Therefore, it can be concluded that there is a significant difference in learners' English competencies based on their pre-test scores and post-test score after the action research has been implemented.

Conclusions and Suggestions

This study attempted to improve the instructional design of an English Club by integrating technology into language learning. This action research study used mixed-method with both qualitative and quantitative data. The study results showed some improvements in the learners' English competencies.

Furthermore, the study proved that action research could promote instructional development based on learners' needs. For example, the teacher discovered the learners' needs, preferences regarding learning activities, online platforms, and topics for discussion through action research. In addition, the researcher created an innovative instructional design in collaboration with learners, who actively took part in the process by contributing through daily reflection forms. Based on that, the researcher also can critically analyze and evaluate her teaching practice and make positive impacts to improve the learning processes.

The mean of the pre-test scores was 67.66. On the other hand, the mean of the post-test was 87.06. Therefore, the increased score was 15.40. The achievement was gained through online platform integration, making learning more enjoyable and exciting with several supporting actions. Following the study's primary results, the student's participation in the teaching and learning process and their self-confidence increased as the effects of the action research implementation. Overall, this study strengthens the idea that action research can be used to promote instructional design development.

As the study focused on the 35 learners of the English Club on a particular campus, the findings are not to be generalized to all contexts. Despite their limited scope and nature, the findings have some significant implications. First, the teacher needs to conduct a needs analysis at the beginning. The needs analysis can be a valuable source for teachers to understand the learners' characteristics better, discover their necessities, lacks, and wants, and understand their learning styles and preferences. Second, future studies can use the needs analysis results and the action research reflections to develop learning materials based on particular contexts.

The researcher hopes that this research will give many benefits for the sake of the betterment of the teaching and learning process. Based on the conclusions elaborated previously, several suggestions would be addressed to all English Club teachers and other researchers as follows. First, the English Club teacher is expected to continue the successful action implemented previously to maintain the learners' improvement in learning English. It is also recommended that the English teacher conduct further studies to develop learning materials based on learners' needs. Finally, for future research findings, it is recommended to evaluate further some actions to improve English proficiencies through technology integration in different contexts.

Acknowledgments

References

Ampartzaki, M., Kypriotaki, M., Voreadou, C., Dardioti, A., & Stathi, I. (2013). Communities of practice and participatory action research: the formation of a synergy for the development of museum programmes for early childhood. *Educational Action Research*, *21*(1), 4–27.

Angelaina, S., & Jimoyiannis, A. (2012). Analysing students' engagement and learning presence in an educational blog community. *Educational Media International*, *49*(3), 183–200.

https://doi.org/10.1080/09523987.2012.738012.

Beetham, H., & Sharpe, R. (Eds.). (2013). *Rethinking pedagogy or a digital age: Designing for 21st century learning.* Routledge.

Bosompem, E. G. (2014). Materials adaptation in Ghana: Teachers' attitudes and practices. In *International perspectives on materials in ELT* (pp. 104–120). Palgrave Macmillan.

Bower, M., Hedberg, J. G., & Kuswara, A. (2010). A framework for Web 2.0 learning design. *Educational Media International*, *47*(3), 177–198.

Burns, A. (2009). Action research. In *Qualitative research in applied linguistics* (pp. 112–134). Palgrave Macmillan.

Burns, A. (2014). Professional learning in Australian ELICOS: An action research orientation. *English Australia Journal*, *29*(2), 3–20.

Burns, A. (2017). Innovating teacher development: Transformative teacher education through classroom inquiry. *Innovative Practices in Language Teacher Education*, 187–203.

Burns, Anne. (1999). *Collaborative action research for English language teachers*. Cambridge University Press.

Chawes Enciso, N. C. (2018). *Workshops centered on authentic videos to enhance speaking*. Universidad Externado de Colombia.

Coccetta, F. (2018). Developing university students' multimodal communicative competence: Field research into multimodal text studies in English. *System*, *77*, 19–27. https://doi.org/10.1016/j.system.2018.01.004.

Creswell, J. W. (2013). *Qualitative Inquiry & Research Design: Choosing Among the Five Approaches*. Thousand Oaks, CA: SAGE Publications, Inc.

Creswell, J. W. (2015). Revisiting mixed methods and advancing scientific practices. In *The Oxford handbook of multimethod and mixed methods research inquiry*.

Dunn, T. J., & Kennedy, M. (2019). Technology Enhanced Learning in higher education; motivations, engagement and academic achievement. *Computers and Education*, *137*(April), 104–113. https://doi.org/10.1016/j.compedu.2019.04.004.

Eden, C., & Ackermann, F. (2018). Theory into practice, practice to theory: Action research in method development. *European Journal of Operational Research*, *271*(3), 1145–1155.

Edwards, E., & Burns, A. (2016). Action research to support teachers' classroom materials development. *Innovation in Language Learning and Teaching*, *10*(2), 106–120. https://doi.org/10.1080/17501229.2015.1090995.

Garton, S., & Graves, K. (2014). Materials in ELT: Current issues. In *International perspectives on materials in ELT* (pp. 1–15). Palgrave Macmillan.

Graves, K., & Garton, S. (2015). Addressing Mismatches Between Classroom and Context and Coursebooks. *The 49th Annual IATEFL Conference*.

Hulme Kukulska, A., Norris, L., & Donohue, J. (2015). Mobile pedagogy for a guide for teachers. In *ELT Research Papers* (Vol. 14, Issue 7). file:///Volumes/JHSL/THESIS BIBLIOGRAPHY/__userdata_documentsA mobile3_lemn3_Desktop_E485 Mobile pedagogy for ELT_FINAL_v2.pdf.

Jimoyiannis, A., Tsiotakis, P., & Roussinos, D. (2011). Pedagogical and instructional design issues towards the integration of Web 2.0 tools in instruction-Implications of teachers' training pilot courses in Greece. *7th International Conference on Next Generation Web Services Practices*, 530–535.

Jolly, D., & Bolitho, R. (2011). A framework for materials writing. In *Materials development in language teaching* (pp. 107–134).

Kemmis, S., McTaggart, R., & Nixon, R. (2014). Introducing critical participatory action research. In *The action research planner* (pp. 1–31). Springer.

Kemmis, S. (2015). Critical Theory and Participatory Action Research. In *The SAGE Handbook of Action Research* (pp. 121–138). https://doi.org/10.4135/9781848607934.n14.

Kirkwood, A., & Price, L. (2014). Technology-enhanced learning and teaching in higher education: What is 'enhanced' and how do we know? A critical literature review. *Learning, Media and Technology*, *39*(1), 6–36.

Kuo, N. C. (2015). Action research for improving the effectiveness of technology integration in preservice teacher education. *Inquiry in Education*, *6*(1), 3.

Lee, J., & Choi, H. (2017). What affects learner's higher-order thinking in technology-enhanced learning environments? The effects of learner factors. *Computers and Education*, *115*, 143–152. https://doi.org/10.1016/j.compedu.2017.06.015.

Majthoob, S. A. (2014). Adapting materials to meet the literacy needs of young Bahraini learners. In *International perspectives on materials in ELT* (pp. 53–68). Palgrave Macmillan.

Mallahi, O., & Saadat, M. (2018). Proposing a Socioculturally-informed Syllabus to Teach Paragraph Writing for Iranian Undergraduate EFL learners: Materials, Methods and Assessment. *Journal of Modern Research in English Language Studies*, *5*(1), 47–72.

McLoughlin, C., & Lee, M. J. (2010). Personalised and self regulated learning in the Web 2.0 era: International exemplars of innovative pedagogy using social software. *Australasian Journal of Educational Technology*, *26*(1).

Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative Data Analysis: A Methods Sourcebook*. SAGE.

Perren, J. (2013). Strategic steps to successful service-learning in TESOL: From critical to practical. *TESOL Journal*, *4*(3), 487–513.

Rashidi, N., & Safari, F. (2011). A model for EFL materials development within the framework of critical pedagogy (CP). *English Language Teaching*, *4*(2), 250.

Saye, J. W., & Brush, T. (2007). Using technology-enhanced learning environments to support problem-based historical inquiry in secondary school classrooms. *Theory & Research in Social Education*, *35*(2), 196–230.

Titchen, A. (2015). Action research: genesis, evolution and orientations. *International Practice Development Journal*, *5*(1).

Tomlinson, B. (2012). Materials development for language learning and teaching. *Language Teaching*, *45*(2), 143–179.

Tran, T. Q., & Duong, T. M. (2018). The effectiveness of the intercultural language communicative teaching model for EFL learners. *Asian-Pacific Journal of Second and Foreign Language Education*, *3*(1). https://doi.org/10.1186/s40862-018-0048-0.

Whitehead, J. (2019). The underlying importance of context and voice in action research. In *The Wiley handbook of action research in education* (pp. 207–228).

Wyatt, M., & Dikilitaş, K. (2016). English language teachers becoming more efficacious through research engagement at their Turkish university. *Educational Action Research*, *24*(4), 550–570.

Zhou, Y., & Wei, M. (2018). Strategies in technology-enhanced language learning. *Studies in Second*

Language Learning and Teaching, *8*(2 Special Issue), 471–495. https://doi.org/10.14746/ssllt.2018.8.2.13.

Ampartzaki, M., Kypriotaki, M., Voreadou, C., Dardioti, A., & Stathi, I. (2013). Communities of practice and participatory action research: the formation of a synergy for the development of museum programmes for early childhood. *Educational Action Research*, *21*(1), 4–27.

Angelaina, S., & Jimoyiannis, A. (2012). Analysing students' engagement and learning presence in an educational blog community. *Educational Media International*, *49*(3), 183–200. https://doi.org/10.1080/09523987.2012.738012.

Beetham, H., & Sharpe, R. (Eds.). (2013). *Rethinking pedagogy or a digital age: Designing for 21st century learning.* Routledge.

Bosompem, E. G. (2014). Materials adaptation in Ghana: Teachers' attitudes and practices. In *International perspectives on materials in ELT* (pp. 104–120). Palgrave Macmillan.

Bower, M., Hedberg, J. G., & Kuswara, A. (2010). A framework for Web 2.0 learning design. *Educational Media International*, *47*(3), 177–198.

Burns, A. (2009). Action research. In *Qualitative research in applied linguistics* (pp. 112–134). Palgrave Macmillan.

Burns, A. (2014). Professional learning in Australian ELICOS: An action research orientation. *English Australia Journal*, *29*(2), 3–20.

Burns, A. (2017). Innovating teacher development: Transformative teacher education through classroom inquiry. *Innovative Practices in Language Teacher Education*, 187–203.

Burns, Anne. (1999). *Collaborative action research for English language teachers*. Cambridge University Press.

Chawes Enciso, N. C. (2018). *Workshops centered on authentic videos to enhance speaking*. Universidad Externado de Colombia.

Coccetta, F. (2018). Developing university students' multimodal communicative competence: Field research into multimodal text studies in English. *System*, *77*, 19–27. https://doi.org/10.1016/j.system.2018.01.004.

Creswell, J. W. (2013). *Qualitative Inquiry & Research Design: Choosing Among the Five Approaches*. Thousand Oaks, CA: SAGE Publications, Inc.

Creswell, J. W. (2015). Revisiting mixed methods and advancing scientific practices. In *The Oxford handbook of multimethod and mixed methods research inquiry*.

Dunn, T. J., & Kennedy, M. (2019). Technology Enhanced Learning in higher education; motivations, engagement and academic achievement. *Computers and Education*, *137*(April), 104–113. https://doi.org/10.1016/j.compedu.2019.04.004.

Eden, C., & Ackermann, F. (2018). Theory into practice, practice to theory: Action research in method development. *European Journal of Operational Research*, *271*(3), 1145–1155.

Edwards, E., & Burns, A. (2016). Action research to support teachers' classroom materials development. *Innovation in Language Learning and Teaching*, *10*(2), 106–120. https://doi.org/10.1080/17501229.2015.1090995.

Garton, S., & Graves, K. (2014). Materials in ELT: Current issues. In *International perspectives on materials in ELT* (pp. 1–15). Palgrave Macmillan.

Graves, K., & Garton, S. (2015). Addressing Mismatches Between Classroom and Context and Coursebooks. *The 49th Annual IATEFL Conference*.

Hulme Kukulska, A., Norris, L., & Donohue, J. (2015). Mobile pedagogy for a guide for teachers. In *ELT Research Papers* (Vol. 14, Issue 7). file:///Volumes/JHSL/THESIS BIBLIOGRAPHY/__ userdata_documentsA mobile3_lemn3_Desktop_E485 Mobile pedagogy for ELT_FINAL_v2.pdf.

Jimoyiannis, A., Tsiotakis, P., & Roussinos, D. (2011). Pedagogical and instructional design issues towards the integration of Web 2.0 tools in instruction-Implications of teachers' training pilot courses in Greece. *7th International Conference on Next Generation Web Services Practices*, 530–535.

Jolly, D., & Bolitho, R. (2011). A framework for materials writing. In *Materials development in language teaching* (pp. 107–134).

Kemmis, S., McTaggart, R., & Nixon, R. (2014). Introducing critical participatory action research. In *The action research planner* (pp. 1–31). Springer.

Kemmis, S. (2015). Critical Theory and Participatory Action Research. In *The SAGE Handbook of Action Research* (pp. 121–138). https://doi.org/10.4135/9781848607934.n14.

Kirkwood, A., & Price, L. (2014). Technology-enhanced learning and teaching in higher education: What is 'enhanced' and how do we know? A critical literature review. *Learning, Media and Technology*, *39*(1), 6–36.

Kuo, N. C. (2015). Action research for improving the effectiveness of technology integration in preservice teacher education. *Inquiry in Education*, *6*(1), 3.

Lee, J., & Choi, H. (2017). What affects learner's higher-order thinking in technology-enhanced learning environments? The effects of learner factors. *Computers and Education*, *115*, 143–152. https://doi.org/10.1016/j.compedu.2017.06.015.

Majthoob, S. A. (2014). Adapting materials to meet the literacy needs of young Bahraini learners. In *International perspectives on materials in ELT* (pp. 53–68). Palgrave Macmillan.

Mallahi, O., & Saadat, M. (2018). Proposing a Socioculturally-informed Syllabus to Teach Paragraph Writing for Iranian Undergraduate EFL learners: Materials, Methods and Assessment. *Journal of Modern Research in English Language Studies*, *5*(1), 47–72.

McLoughlin, C., & Lee, M. J. (2010). Personalised and self regulated learning in the Web 2.0 era: International exemplars of innovative pedagogy using social software. *Australasian Journal of Educational Technology*, *26*(1).

Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative Data Analysis: A Methods Sourcebook*. SAGE.

Perren, J. (2013). Strategic steps to successful service-learning in TESOL: From critical to practical. *TESOL Journal*, *4*(3), 487–513.

Rashidi, N., & Safari, F. (2011). A model for EFL materials development within the framework of critical pedagogy (CP). *English Language Teaching*, *4*(2), 250.

Saye, J. W., & Brush, T. (2007). Using technology-enhanced learning environments to support problem-based historical inquiry in secondary school classrooms. *Theory & Research in Social Education*, *35*(2), 196–230.

Titchen, A. (2015). Action research: genesis, evolution and orientations. *International Practice Development Journal*, *5*(1).

Tomlinson, B. (2012). Materials development for language learning and teaching. *Language Teaching*, *45*(2), 143–179.

Tran, T. Q., & Duong, T. M. (2018). The effectiveness of the intercultural language communicative teaching model for EFL learners. *Asian-Pacific Journal of Second and Foreign Language Education*,

3(1). https://doi.org/10.1186/s40862-018-0048-0.

Whitehead, J. (2019). The underlying importance of context and voice in action research. In *The Wiley handbook of action research in education* (pp. 207–228).

Wyatt, M., & Dikilitaş, K. (2016). English language teachers becoming more efficacious through research engagement at their Turkish university. *Educational Action Research*, *24*(4), 550–570.

Zhou, Y., & Wei, M. (2018). Strategies in technology-enhanced language learning. *Studies in Second Language Learning and Teaching*, *8*(2 Special Issue), 471–495. https://doi.org/10.14746 /ssllt.2018.8.2.13.