

Designing e-Crossword for Vocational English Vocabulary Enrichment in English for Tourism and Event

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Abstract – The current study aimed at designing e-crossword for vocational English vocabulary enrichment in English for tourism and event class. This study implemented Design Instructional approach with ADDIE instructional design methods to develop a proper e-crossword for vocational English vocabulary enrichment in English for tourism and event. The total of 19 students and one lecturer become the participant in this study. The data were collected through five phase, including analyze, design, develop, implement and evaluate. The analysis of the data included two data analysis method, including descriptive quantitative analysis and qualitative analysis. As the result, two e-crosswords were developed with two different learning topics, business letter and talking about event. Based on the evaluation form, majority of students perceived that the e-crosswords have clear clues, equal number of questions, and different difficulty level question. Furthermore, the vocabularies in the developed e-crosswords are also in line to the learning topics discussed in the teaching and learning process.

Keywords: Gamification, E-crossword, Vocabulary, Vocational English

1. INTRODUCTION

Vocational education offers a more specific context-based teaching and learning activity. In vocational education institution, students are exposed more with practical learning rather than theoretical basis. They learn how to do a specific job professionally and learn certain operational procedures in operating systems or giving services. This praxis also occurs in English teaching and learning activity. Lecturers provide learning material which is connected to a specific scope of occupation and bridge the English class into English for Specific Purposes (ESP).

As an ESP, the learning material focuses on the language expressions used in a specific context (Bekteshi & Xhaferi, 2020; Buşu, 2019). It provides the students with certain jargon and terminologies that they will use in professional industry (Dewi et al., 2019; Donal et al., 2020) which could be different on daily interaction (Pleşca, 2019). This English teaching and learning activity emphasis on how to prepare the students to be able in communicate and operate the system in working field (Ayuningtyas, 2020), such as English for law, English for nursing, English for business, etc. With the aim of exposing the students with terminologies and language expressions in professional fields, mastering the vocabulary and specific terminologies becomes a challenge faced by the students and to overcome this issue, the lecturer needs to find an effective teaching and learning activity in English class.

Gamification is concept which is viewed as an effective way to encourage the students in teaching and learning activity. Prior studies have already identified the use of gamification in teaching and learning. Gamification could ease the educators to transfer knowledge to learners (Rao, et al., 2022). During the gamification process, the students could compete to each other to gain better score or reach the highest rank in the leaderboard by collecting badges or scores (Phuong, 2022). This environment could sharpen their critical thinking skills (Mirzaev, 2022). This situation also motivates the students to study better (Portero & Rodríguez, 2022) since it builds enjoyable learning environment (Armanda & Indriani, 2022; Demirbilek, et al., 2022). Moreover, as the concept is realizing game-like teaching, it engages the students to be involved in the learning activity (Papp, 2017; Yavuz, et al., 2020). With different level of tasks and instructions, gamification could provide an opportunity for students to evaluate and self-review on their learning based on their level (Abusa'aleek & Baniabdelrahman, 2020).

As the technology rapidly developing, the demand on technology-based teaching media accommodating the gamification for vocabulary enrichment is arisen. Gamification also exists in digital forms (Rao, et al., 2022), hence, from prior observation, the researcher identified that the number of proper gamification teaching media which could cover the learning topics in English for Tourism and Event is limited. Therefore, the current study aimed at designing a technology-based teaching media to support gamification teaching strategy for vocational English vocabulary enrichment in ESP class. In term of gamification, the current study develops e-crosswords game which focuses on English for Tourism and Event vocational vocabulary and terminologies.

In line with the aim of the study, there are two research questions proposed in this study.

- 1) How is the quality of the developed English for Tourism and Event e-crosswords?
- 2) How is the properness of the developed e-crosswords toward the learning topics discussed in English for Tourism and Event class?

2. METHOD

2.1 Research Design

With the aim of developing e-crosswords for vocational English vocabulary enrichment, the current study employed a Research and Development research. This research design enables the research to gain better understanding in creating instructional products (Gall et al., 2003). In the product development process, the current study implemented Design Instructional approach with ADDIE instructional design methods (Branch, 2010).

2.2 Research Participants

In conducting the study, the present study took place in a vocational higher education. The present study took one class with nineteen students, ten male students and nine female students, and one English lecturer as the participants in the present study. These students were third-semester students majoring Tour and Travel Operation study program. In the third-semester, these students took English for Tourism and Event as a mandatory subject. In this subject, these students learned the English for specific purposes with several special terminologies for handling event preparation and holding an event, including event review, liaison officer, event registration, event map, event schedule, event planning, event contributors, and business correspondence for event.

| Category | Number | Percentage |
|--------------|--------|------------|
| Male | 10 | 52.63% |
| Female | 9 | 47.37% |
| Total | 19 | 100.00% |

Table 1. Students' Demography

2.3 Data Collection Instrument

During the product development process, the current study employed three research instruments, including interview guide, observation field note, and evaluation form. These instruments were utilized in different phases based on the ADDIE product development phase (analyze, design, develop, implement and evaluate) (Branch, 2010).

In the analyze phase, the researcher invited the English lecturer to discuss the the learning topics in English for Tourism and Event. During the discussion, researcher employed an interview guide which covered two main questions identifying the learning topics in English for Tourism and Event and the vocational English vocabulary in event.

In design phase, the researcher selected the learning topics which were taken as the e-crossword material. The researcher identified the learning scope for each topic and the varieties of vocational English vocabulary occurring in the topics completed with its meaning and examples.

In develop phase, the researcher listed the vocational English vocabulary for event and its meaning. Then, the researcher generated e-crosswords using online crossword generator on <https://crosswordlabs.com/> (see **Figure 1**). After generating the e-crosswords, the researcher sent the access to the English lecturer to gain some feedback and revision. Receiving the feedback from the English lecturer, some revisions on e-crosswords were conducted.

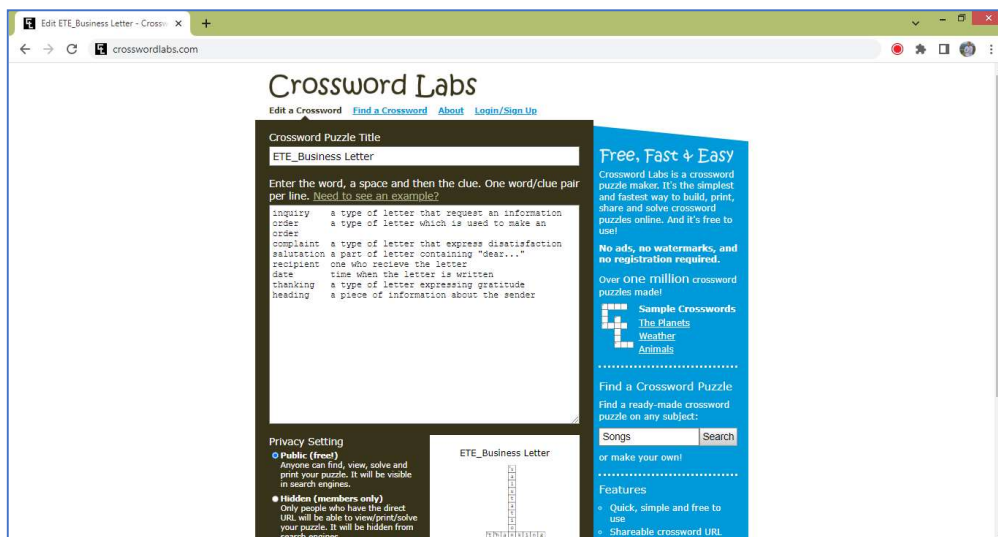


Figure 1. The Process of E-crossword Data Input to Crossword Generator

In implement phase, the researcher and the English lecturer inserted the e-crossword teaching media during the teaching and learning process. During this phase, the researcher observed the teaching and learning activity in the classroom and also took some notes on how the students perceive the e-crosswords game in the English class on the observation sheet.

In evaluate phase, the researcher collected students' perception in evaluating the quality and properness of the e-crosswords toward the English for Tourism and Event. The researcher employed an evaluation form at the end of the class. This form contained four close-ended questions with 5 points Likert-scale as its options (strongly disagree to strongly agree). These questions were employed to gain students' perception in evaluating the quality of the e-crosswords, including the clarity of crossword's clues given, the number of questions given, and the difficulty level of each clue and question, and also properness of the e-crosswords toward the English for Tourism and Event learning topics that the students' have learned. The evaluation form was constructed using the students' first language, *Bahasa Indonesia*, to gain more accurate answer and it was distributed online by using *Google form*.

2.4 Data Analysis

To gain a deeper result of the study, the analysis of the data included two data analysis method; descriptive analysis and qualitative analysis. The descriptive analysis was used to analyze the result of the evaluation form. The analysis was conducted by calculating the total responses to the close-ended questions in the evaluation form to gain the frequencies of each option selected by the students. On the other hand, the qualitative analysis was used to analyze the result of interview with the English lecturer and classroom observation. The qualitative data analysis was conducted through a sequences of qualitative data analysis model (Miles et al.,

2014). First, the collected qualitative data were coded and distributed into some themes. Second, any data redundancies or unrelated data to the research questions were sorted out to ease the process of data analysis. Third, the result of the data analysis was displayed in form of narration and interpretation. Fourth, to gain richer output of the study, the result of data analysis was interpreted and discussed with previous research findings.

3. RESULTS AND DISCUSSION

In line with the aim of the study, the current study had developed two crosswords for two different learning topics. The first crossword is *business letter* crossword which contains eight vocabularies; four across and four down clues (see **Figure 2**). The second crossword is *talking about events* crossword which contains seventeen vocabularies; eight across and nine down clues (see **Figure 3**).

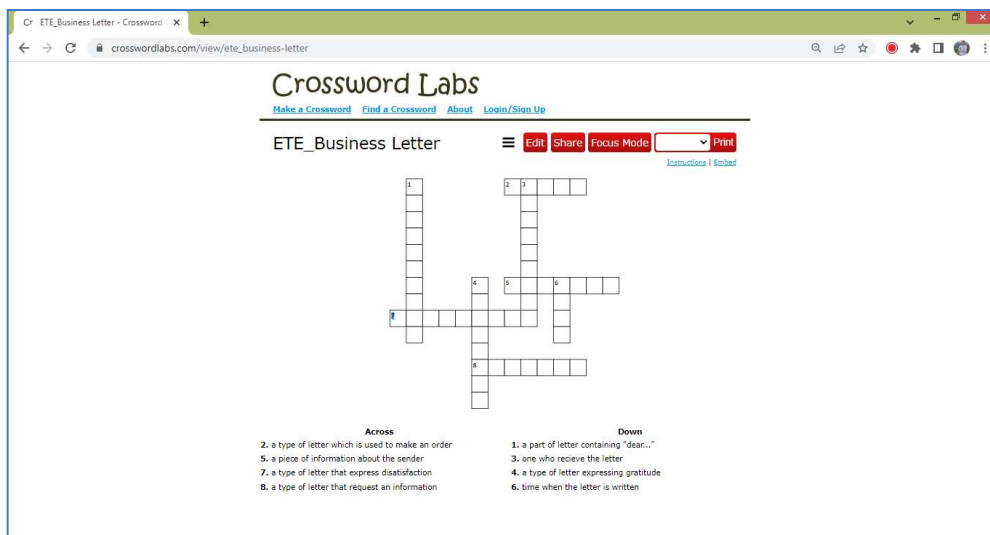


Figure 2. The Business Letter Crossword

To answer the research questions, the results of this study were elaborated into two sub-sections. The first sub-section elaborates the quality of the developed English for Tourism and Event e-crosswords and the second sub-section elaborates the properness of the developed e-crosswords toward the learning topics discussed in English for Tourism and Event class.

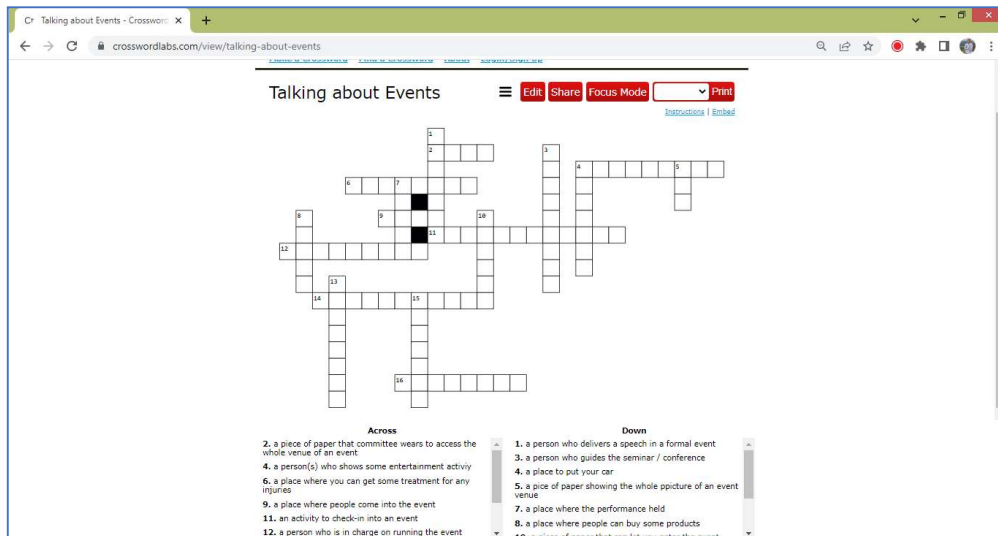


Figure 3. The Talking about Events Crossword

3.1 The Quality of the Developed English for Tourism and Event E-crosswords

In evaluating the developed e-crosswords, the current study examined the quality of the product. There are three aspects evaluated in the study, including clarity of crossword's clues, the number of questions, and the difficulty level of questions in crosswords. The evaluation was gained from students' perceptions as the user of the e-crosswords during the English for Tourism and Event class.

On the first aspect, the clarity of crossword's clues is examined. The students evaluated the selection of words used in the clue given on the crossword, whether it is clear and well recognized, or not. Based on the result of the evaluation form (see **Table 1**), 8 students (42.10%) stated strongly agree, 7 students (36.84%) stated agree, 2 students (10.53%) become neutral, and 2 students (10.53%) selected disagree. This indicated that the majority of the students perceived that words selected to be put in the crosswords' clues are clear.

| Statement | SD | D | N | A | SA |
|--|-----------|---------------|---------------|---------------|---------------|
| The words put in the crosswords' clues are clear | 0 (0%) | 2 (10.53%) | 2 (10.53%) | 7 (36.84%) | 8 (42.10%) |

Table 1. Evaluation on the clarity of crossword's clues given (N=19)

Further investigation was also conducted to gain further insight from the students. The researcher conducted an interview with the students who selected neutral and disagree option to gain some clarification and feedback to maintain the quality of the developed e-crosswords. As the result, it is figured out that some clues contain less familiar words which lead confusion for the student to solve the crosswords, such as gratitude and injuries. Besides, some clues provide less detailed hints as there could be more than one possible answer. These responses conveyed that the students are quite critical in solving the clues in each crossword, and it indicated that the gamification could enhance students' critical thinking skills (Mirzaev, 2022).

“Because I don’t know the meaning of the words written on the clue, like gratitude and injuries. So, I cannot solve the whole questions on these crosswords.” (S.12)

“Because the clue is not really clear enough. For example, the clue number 6, a place where you can get some treatment for any injuries, I thought it was hospital or medic. Then, clue number 9, a place where people come into the event, I thought it is a door.” (S.7)

On the second aspect, the number of question is examined. The students evaluated the number of questions given on the crossword, whether it is proper and equal to the range of learning topic’s discussion, or not. Based on the result of the evaluation form (see **Table 2**), 10 students (52.63%) stated strongly agree, 8 students (42.10%) stated agree, and 1 student (5.27%) selected disagree. This indicated that the majority of the students perceived that the number of questions given on the crossword equals and proper to the range of learning topic’s discussion.

| Statement | SD | D | N | A | SA |
|---|-----------|--------------|-----------|---------------|----------------|
| The total number of questions in crosswords are proper to the range of learning topic | 0 (0%) | 1 (5.27%) | 0 (0%) | 8 (42.10%) | 10 (52.63%) |

Table 2. Evaluation on the number of questions given (N=19)

To gain further insight from the students to maintain the quality of the developed e-crosswords, the researcher conducted an interview with the students who selected disagree option. From the interview, it unraveled that the first crossword has few questions which lead to less opportunity for students to solve it. Regarding this issue, it conveys that gamification develop students’ motivation to be involved in teaching and learning process (Papp, 2017).

“Because the question (on first crossword) is too few. It is just eight questions, but we are nineteen students in this class, and I don’t get a chance to answer it in front of the class.” (S.18)

On the third aspect, the difficulty level of questions in crosswords is examined. The students evaluated the varieties of the questions based on its levels of difficulty, whether it is too hard, too easy, or has balance number of both to solve. Based on the result of the evaluation form (see **Table 3**), 8 students (42.10%) stated strongly agree, 8 students (42.10%) stated agree, 2 students (10.53%) become neutral, and 1 student (5.27%) selected disagree. This indicated that the majority of the students perceived that the questions have varieties level on difficulty, from easy, medium, and hard level.

| Statement | SD | D | N | A | SA |
|--|-----------|--------------|---------------|---------------|---------------|
| In each crossword, there is a variety of difficulty level in solving the clue. | 0 (0%) | 1 (5.27%) | 2 (10.53%) | 8 (42.10%) | 8 (42.10%) |

Table 3. Evaluation on the difficulty level of questions in crosswords (N=19)

Seeking for feedback and clarification, the researcher conducted an interview with the students who selected neutral and disagree option. As the result, it is figured out that some questions in the crosswords are too easy to solve which is not challenging, but some other questions are too tricky which lead the students to confusion.

“Because the questions are too easy on the first crossword. I can solve it all. But, on the second crossword, it is harder, especially clue number 6.” (S.4)

“Because the two crosswords have different levels. The first crossword is too easy since the clue is clear and easy to remember. Meanwhile, the second crossword is harder to solve and tricky. Like, number 9, it is four letters, and it is a place to come into the event. It can be door too. It is confusing.” (S.11)

3.2 The Properness of the Developed E-crosswords toward the Learning Topics

After evaluating the quality of the developed e-crosswords, the current study has also identified the students’ perceptions toward the properness of vocabularies in the e-crosswords regarding the learning topic in English for Tourism and Event. Based on the result of the evaluation form (see **Table 4**), 14 students (73.68%) stated strongly agree and 5 students (26.32%) stated agree. This indicated that the majority of the students perceived that vocabularies and terminologies in the e-crosswords are proper to the learning topic in English for Tourism and Event.

| Staement | SD | D | N | A | SA |
|---|-----------|-----------|-----------|---------------|----------------|
| The vocabulary in each crossword in line with the learning topics discussion in the class | 0 (0%) | 0 (0%) | 0 (0%) | 5 (26.32%) | 14 (73.68%) |

Table 4. Evaluation on the properness of the developed E-crosswords toward the learning topics (N=19)

4. CONCLUSION

The current study had developed two crosswords for two different learning topics. The first crossword is *business letter* crossword which contains eight vocabularies and the second crossword is *talking about events* crossword which contains seventeen vocabularies. These e-crosswords have been perceived positively by the majority of students with clear clues, equal number of questions, and different difficulty level question. Furthermore, the vocabularies in the developed e-crosswords are also in line to the learning topics discussed in the teaching and learning process. However, the user-friendliness aspect has not been investigated deeply. Therefore, further research could conduct similar research to gain further insight on e-crossword user-friendliness and also identify the challenges and barriers in implementing the e-crosswords in the classroom.

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