

Teaching Multimodal Texts in an ESP Class Using Interacty and Padlet

Pengajaran Teks Multimodal dalam Kelas ESP Menggunakan Interacty dan Padlet

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Abstract: The utilization of multimodal texts and interactive technology has gained significant popularity. However, the existing research on multimodal texts for English for Specific Purposes (ESP) is less comprehensive. Therefore, the current study explores the potential of Interacty and Padlet to improve ESP teaching and learning in a virtual setting, their implementation in the classroom, and students' outcomes following the application of the two apps. This study employed a descriptive qualitative approach through participant observation to collect data. Thematic Analysis was applied to analyse the fieldnotes and the accompanying transcribed data. The implementation of Interacty and Padlet in ESP courses has proven to be adaptable and effective tools to enhance the language learning through various interactive formats, quizzes, and games to promote meaningful activities. The overall success of the implementation suggests that the use of these platforms has the potential to enhance engagement, motivation, and comprehension in ESP classrooms while adding an element of fun to the learning process. This study adds to the existing research on online teaching by offering findings regarding the use of Interacty and Padlet in ESP which enables the instructor to promote students' comprehension, meaningful learning, and joyful activities.

Keywords: Multimodal texts, ESP, Interacty, Padlet;

Abstrak: Penggunaan teks multimodal dan teknologi interaktif telah mendapat populariti yang ketara. Walau bagaimanapun, penyelidikan sedia ada mengenai teks multimodal untuk English for Specific Purposes (ESP) adalah kurang menyeluruh. Oleh itu, kajian semasa meneroka potensi Interacty dan Padlet untuk menambah baik pengajaran dan pembelajaran ESP dalam persekitaran maya, pelaksanaannya di dalam bilik darjah, dan hasil pelajar berikutan penggunaan kedua-dua aplikasi tersebut. Kajian ini menggunakan pendekatan kualitatif deskriptif melalui pemerhatian peserta untuk mengumpul data. Analisis Tematik telah digunakan untuk menganalisis nota lapangan dan data transkripsi yang disertakan. Pelaksanaan Interacty dan Padlet dalam kursus ESP telah terbukti sebagai alat yang boleh disesuaikan dan berkesan untuk meningkatkan pembelajaran bahasa melalui pelbagai format interaktif, kuiz, dan permainan untuk mempromosikan aktiviti yang bermakna. Kejayaan keseluruhan pelaksanaan menunjukkan bahawa penggunaan platform ini berpotensi untuk meningkatkan penglibatan, motivasi dan kefahaman dalam bilik darjah ESP sambil menambah unsur keseronokan kepada proses pembelajaran. Kajian ini menambah kepada penyelidikan sedia ada tentang pengajaran dalam talian dengan menawarkan penemuan berkenaan

penggunaan Interacty dan Padlet dalam ESP yang membolehkan pengajar mempromosikan kefahaman pelajar, pembelajaran bermakna dan aktiviti yang menggemibirakan.

Kata kunci: Teks multimodal, ESP, Interacty, Padlet;

Introduction

English for Specific Purposes (ESP) is a multidisciplinary area of language instruction that addresses the special linguistic needs of persons in various domains (Mohamed & Alani, 2022), such as business (Rao, 2019), medicine (Ibrahim, 2020), and science and technology (Hafner & Ho, 2020). Additionally, ESP is categorized into three distinct groups: English for Sciences and Technology (EST), English for Business and Economics (EBE), and English for Social Studies (ESS). Hutchinson and Waters initiated this specialization in 1987 from which time ESP programs have distinguished themselves from traditional English language instruction by prioritizing developing language abilities essential for effective communication within certain professional domains. The efficacy of ESP instruction stems from its ability to seamlessly integrate theoretical linguistic knowledge with practical, real-world applications, fostering a dynamic and contextualized learning experience. Dou et al. (2023) assert that the primary objective of all ESP programs is to enhance learners' proficiency in utilizing language that is tailored to their respective fields of study or professional endeavours. In the dynamic realm of language education, incorporating technology and instructional approaches has furnished instructors and learners with cutting-edge resources to actively engage in acquiring language skills. The meta-analysis by Rahmati et al. (2021) found that incorporation of technology in English language instruction yielded a substantial positive impact, suggesting its superiority over conventional approaches. The strategic implementation of technology, specifically in the realm of education field is crucial to offer solutions that might enhance progress and advancement, ultimately benefiting society as a whole (Poce et al., 2017). Asmali (2018) also suggests that the use of technology in an English for Specific Purposes (ESP) curriculum can significantly benefit students. Computer technology enables interactive and communicative activities that are relevant to their current or future professional environments. At the same time, multimodal practices; involve the creation and interpretation of

texts that use multiple modes of communication, encompassing diverse audio-visual and interactive elements, that have emerged as a teaching approach that may cater to different learning styles and preferences (Bagila et al., 2019). Al Aqad et al. (2021) also endorses the notion that technology, particularly audio-visual aids, can substantially influence language acquisition, following the principles of English for Specific Purposes (ESP). This inclusion is particularly relevant in the context of ESP, as learners often require proficiency in the specific communicative norms of their academic discipline.

Despite the growing interest in incorporating multimodal texts; refer to texts that combine two or more modes of communication to convey meaning, and interactive technology in language education, the literature lacks information regarding their specific applications, i.e. Interacty and Padlet, and the advantages they offer to English for Specific Purposes (ESP) students. The presence of many perspectives has prompted criticism of the various approaches taken to include multimodality in different fields of study. However, multimodality which refers to the use of multiple modes or methods of communication within a single text or interaction has become increasingly popular in a time of significant social, economic, and technical transformation, when advancements have significantly altered the way, we communicate. This is especially evident with the rapid expansion of digital media (Flewitt et al., 2018). Laadem and Mallahi (2019) highlighted a lack of sufficient research on multimodal texts on ESP practices. Undeniably, this critique of ESP literature on its progress is not completely new (Dou et al., 2023). Nevertheless, every piece of literature on a specific topic has the potential to provide fresh perspectives, especially when examined in the light of recent updates in the literature. This dynamic process allows for the integration of newer viewpoints into an existing field.

This study aims to investigate the application of Interacty and Padlet in the context of ESP classrooms, to narrow the existing knowledge gap. Integrating multimodal texts facilitated by interactive platforms such as Interacty and Padlet is becoming more

attractive in the context of enhancing the learning experience of ESP. Interacty is a platform that enables users to create and distribute interactive material and gamified experiences such as quizzes, games, slideshows, and other activities. Padlet is a platform for collaborative learning that allows users to share and discuss many forms of digital content, including text, images, videos, and documents.

The existing ESP courses in Indonesia lacked a digital platform for learning English where interactive functionalities such as immediate feedback, multimedia materials, and communication capabilities, which can augment the educational experience, are frequently included. Without this kind of platform, the process of learning may adopt a more passive nature and lose its ability to captivate and involve learners (Curry, 2022; Abutalebi & Clahsen, 2022). The existence of interactive platforms, such as Interacty and Padlet facilitates the use of multimodal texts, which are technical innovations and have the potential to revolutionize ESP instruction. Interacty allows educators to actively collaborate in real-time, as research by Alrayah (2018), Armadi (2017), Atifnigar and Zaheer (2020), KIRBAŞ (2017), and Yavuz and Arslan (2018) has demonstrated the positive impact of cooperative learning activities on language learning outcomes. By utilizing its interactive features, Interacty facilitates the creation of engaging educational content that goes beyond traditional text-based learning. Meanwhile, Padlet offers a versatile digital platform where users may collaborate, share multimedia content, and engage in interactive conversations.

Therefore, the current study aims to investigate the use of multimodal texts using technology, specifically Interacty and Padlet in ESP learning. This research aims to provide valuable insights that can guide and improve the future of ESP teaching in the digital age. Three questions guided the current research: 1) How are the design features of Interacty and Padlet used in the teaching of ESP classes? 2) How is multimodal learning with Interacty and Padlet implemented in the ESP Classes? 3) What are the learning outcomes of ESP students after being taught using Interacty and Padlet?

Methods

The study was carried out utilizing a descriptive qualitative approach (Creswell & Creswell, 2018; Huges, 2003; Mills & Gay, 2018). Regarding this, a complete and in-depth comprehension of the

phenomenon studied through meticulous data collection and analysis. The study involved a total of twenty-seven students who enrolled in the 3rd semester of the Agro-industrial Technology program at a university in East Java, Indonesia. These students were required to enrol in an English course in order to improve their English proficiency. The majority of the students in this program have intermediate English language proficiency. Due to unforeseen conditions encountered during the research, the classes were conducted online.

In this research, the data were collected using participant observation where one of the researchers took part in the teaching learning processes as an instructor who employed multimodal texts encompassing the utilization of several forms of communication, including linguistic items, visuals, audio, and texts using Interacty and Padlet applications. In order to observe the ESP students' learning outcomes following their instruction utilizing Interacty and Padlet, the ESP students also took on the role of users of these platforms. The observation was conducted throughout the semester to ensure the data collection resulted in adequate data to be analyzed. Prior to the data collection process, the participants were informed about the research to get their consent to be involved in the research. Their voluntary participation was ensured by informing them that they were allowed to withdraw from the research participation anytime they wanted.

To help with data analysis, fieldnotes were created later after the class finished as soon as the researcher had opportunities to translate the sketches she made in the classroom into more readable notes ready to be analysed. Coding analysis were applied to find relevant themes emerging from the data. Thus, the data analysis involved data verification, coding, categorization, abstraction, comparison, dimensionalisation, and interpretation (Miles et al., 2014; Glasser & Strauss, 1967; Strauss & Cobin, 1990).

Results

The results reveal the design and features of Interacty and Padlet when utilized in the teaching of ESP within a classroom setting, the utilization of the tools as platforms for multimodal practices in the classrooms, and the students' performance following instructions using multimodal texts through the use of Interacty and Padlet.

The Design of Interacty and Padlet for ESP

The lesson plans have been carefully designed to implement the course program. The lesson plans are multimodal texts that are based on specific genres. Two meetings on multimodal practice in the ESP course program have been conducted. Authentic multimodal texts are utilized for teaching materials. Authentic texts are created containing authentic texts that are adapted to the students' knowledge background into digital-based materials, namely visual texts, interactive games, and pictures using the Interacty platform, as seen in Figure 1.

Figure 1. Customized multimodal text material

ORGANIC VS. CONVENTIONAL FARMING

What comes to mind when you think of these pictures?
you can unmute yourself or type a word in the chat box!



Organic	Conventional
Use natural fertilizers such as manure or compost to nourish soil and promote plant growth	Use synthetic or chemical fertilizers often containing nitrates to promote plant growth
Rotate crops, use mulch or hand weed to provide beneficial crop hygiene, remove pests, & reduce disease	Use herbicides to kill off weeds and insecticides to kill off insects & bugs in order to reduce disease
Give organic feed to animals & allow them access to open pasture while utilizing rotational grazing patterns	Use antibiotics, growth hormones, and medications in animals to prevent disease and promote growth

CAN YOU GUESS WHAT ARE WE GOING TO LEARN TODAY ?
you can unmute yourself or type your answer in the chat box!

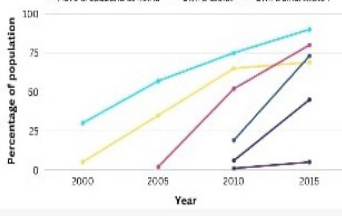
Next >> Powered by Interacty

Figure 1 shows pictures and visual texts intentionally created to introduce the educational materials and to align with the real-life theme of the Agro-Industrial ESP course. The design of Interacty lies in genre-based multimodal texts. These multimodal resources are regarded as the primary means of providing input in the target language. These resources are highly beneficial to assist students to comprehend language usage and enable them to effectively engage in authentic language activities, thereby bridge the gap between theoretical classroom knowledge and practical language skills.

Interacty as an online platform that enables the creation of captivating interactive content can be shared to students through QR codes or websites. This platform is accessible to all individuals, particularly educators seeking game-based learning resources for engaging digital media. Interacty offers a range of features available for both free and premium users, including quizzes, photo stories, flip cards, memory games, and other interactive formats. Figure 2 depicts a representative of a quiz in use. However, in this study, the researchers opted for the free service as it adequately met the learning requirements without significant differences compared to the premium service. Once the Interacty has been set up for use in the classroom, the instructor provided the students with the website link to access it.

Figure 2. Vocabulary interactive game

The graph shows information about technology usage in the US over time. Summarize the information by selecting and reporting the main features. Make comparisons where relevant.



The graph shows the rate at which American people adopted new technology over a 15-year period from 2000 to 2015. The figures are given as percentages of the population.

Overall, there was widespread adoption of new technology during these years. Nearly nine out of ten people in the US were online by 2015. The figures for having broadband in the home, ownership of a smartphone, and use of social media platforms were all high that year too, at around 70 to 80%. Nearly half the population owned a tablet. The only exception to this is smartwatch ownership, which remained comparatively low at 5%.

If we look at the trends over time, we can see that the uptake of new technology increases dramatically in this period. For example, internet usage tripled and social media usage quadrupled by 78 percentage points. Smartphones and tablets appeared in 2010 and, similarly, these followed a similar upward trajectory. However, for some products, the graph shows that growth slowed down noticeably after an initial surge. Social media usage, for instance, was flat until 2005 and then rose to 52% in 2010, before growing more slowly to 80% in 2015. Also, broadband subscriptions rose steadily by 30% every five years to 2010, but by a modest 10% after that. In contrast, the newer technologies such as tablets showed no sign of slowing up.

Ownership of all the technologies was increasing. It will be interesting to see when it peaks.

Figure 2 shows Vocabulary Match-Up Quiz as the second type of teaching media. This game is similar to those found in educational game-based platforms like Quizziz and Kahoot, but it requires users to drag vocabulary words into their correct definitions. In addition to the Match Up Quiz, numerous other interactive quizzes can be customized and utilized. There are a total of nineteen interactive designs available, including Quiz, Personality, Memory, Match Up, Spin the Wheel, Crossword, Sliding Puzzle, Find Pair, Slideshow, Lead Form, Flip Card, Then & Now, Timeline, Cookies, Horoscope,

Interactive Image, Hidden Object, and Puzzle. The researchers opted for a straightforward design to cater to the novice students, thus basing the design on the intended users. Each of them can be utilized by making appropriate modifications based on preference or in alignment with the educational goals. The use of different modes of text construction with Interacty can improve the learning process, students' comprehension, and engagement. Nevertheless, these multimodal texts and interactive games are exclusively available in digital format and can only be accessed through electronic devices such as laptops and smartphones.

Figure 3. Visual modeling of text

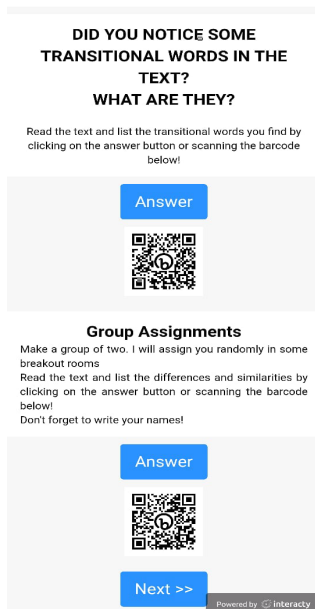


Figure 3 presents the third teaching media in the form of text examples provided for the students to identify. The teacher and students collaboratively engage in the process of reading and analyzing the model text, with a particular focus on the structure and language features employed. By adopting this approach, students can comprehend educational materials. Subsequently, the instructor incorporated

Padlet links as buttons and QR Codes within Interacty (see Figure 4).

Figure 4. Padlet links

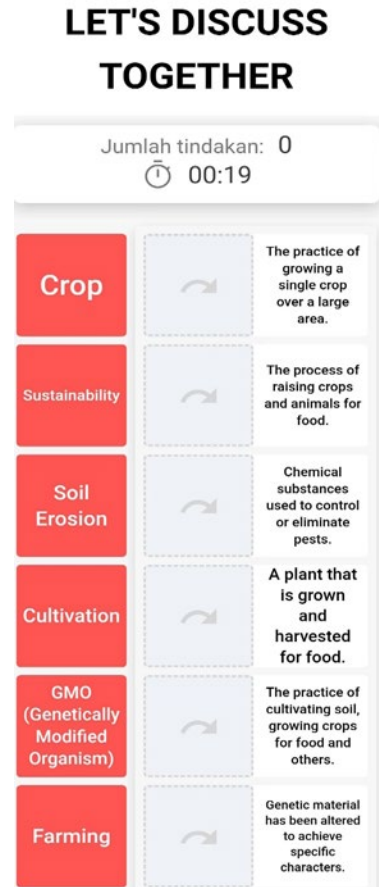
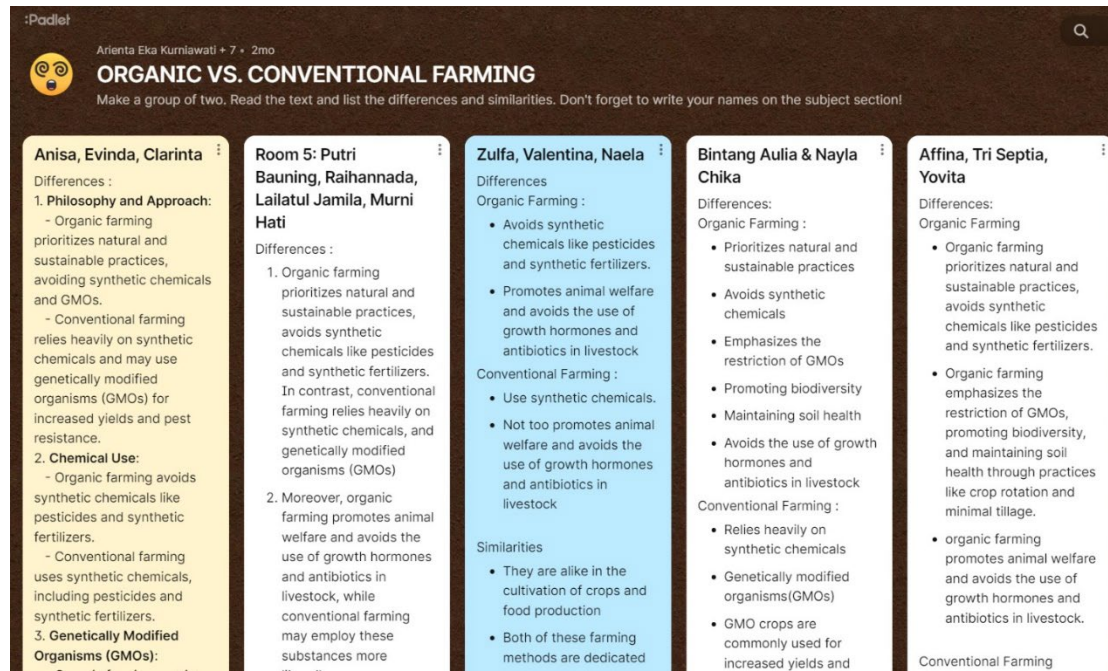


Figure 4 exhibits Padlet links and QR Codes within Interacty for the students to access. This is to facilitate convenient access for students who wish to respond using a different device for their assignments. This exercise aims to give students the opportunity and autonomy to engage in writing practice. Students predominantly utilize Padlet to submit their assignments as instructed by their teachers. The student has the freedom to upload their answers and customize the theme on Padlet as shown in Figure 5.

Figure 5. Students' assignment with Padlet



The assigned multimodal practices for the students include both individual projects and group projects as presented in Figure 5 above. This multimodal project aims to assess how well students compose comparative texts by analysing the linguistic characteristics derived from the verbal and visual elements of the multimodal content presented in Interacty.

In short, the incorporation of genre-based multimodal texts, facilitated through the Interacty platform, has been aimed to provide students with authentic and engaging materials, and to bridge the gap between theoretical knowledge and practical language skills. The use of various interactive formats, quizzes, and games within Interacty not only enable the instructor to facilitate comprehension but also to promote joyful learning process. The intentional alignment of visual texts with the real-life theme of the Agro-Industrial ESP course is expected to contribute to a meaningful and contextualized learning experience. Moreover, the integration of Padlet as a complementary tool for assignments may offer students flexibility and autonomy in responding to tasks. The collaboration between Interacty and Padlet was not only designed to enhance accessibility but also encourage students to participate actively in writing practices. Overall, this innovative combination of digital platforms has been designed to demonstrate

its potential to improve ESP students' meaning, comprehension, and engagement in the learning process.

The Implementation of Interacty and Padlet for ESP

The use of Interacty and Padlet in the ESP Classroom encompasses several objectives: identifying the linguistic characteristics and structure of the text, comprehending the essential information conveyed in the text, and employing contextually appropriate vocabulary. Within a span of 100 minutes, the execution of the learning process comprises three notable typical activity points shown in Table 1 as follows.

Table 1. Activities to Implement the Interacty and Padlet

	Activities	Platform Used
Pre-Activity	- Greeting - Warm-up	Interacty
Whilst-Activity	- Listen to the teacher' explanation - Play the Match Up Vocabulary Quiz - Identifying the visual text	Interacty and Padlet
Post-Activity	- Practice Individual and Group	Interacty

- Assignments
- Homework (Source: YouTube video links)
- Feedback

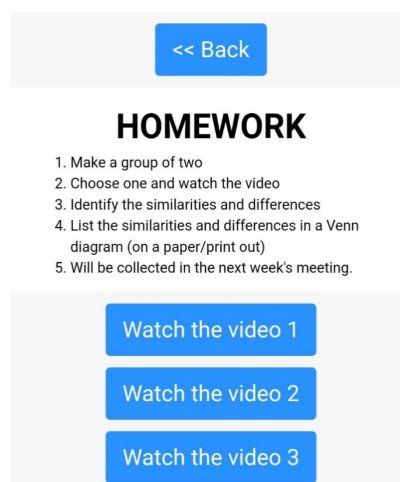
Table 1 displays typical activities executed by the instructor in each session of the ESP classes. The initial phase consists of a pre-reading activity. The initial phase of pre-activity commences with a warm-up session involving the preparation of authentic texts in the form of digital-based materials, such as visual texts and pictures, utilizing the Interacty platform. During the session on visual text and pictures, the researchers posed inquiries to the students regarding organic and conventional farming. Every student responded in the Zoom Meeting Chat box, even though the others did not. This is done to retrieve the relevant background knowledge pertaining to the field. The objective of this activity is to foster active engagement from all students during the online class meeting.

Next, in the lesson on whilst-reading activity, the instructor is lecturing and instructing the students to participate in a vocabulary quiz. This exercise aims to enhance the understanding of vocabulary that is relevant to the given context, as some individuals may not be familiar with these terms beforehand. Subsequently, the students attentively listened to the teacher's lecture and collaboratively identified the accompanying visual text. This activity provides an exemplification of the model text, with a focus on the structure and language features employed. A few students displayed great enthusiasm and engagement by unmuting their audio and providing accurate vocabulary definitions. However, this made other students feel embarrassed. This session was conducted under the guidance of the English instructor. This activity aims to enhance their self-assurance when learning unfamiliar information, particularly in correctly articulating vocabulary and its precise meaning.

In order to reinforce the concepts taught during the session, the teacher instructs the students to analyse the language features and structure present in the given visual text (specifically, transitional words) and respond to it using Padlet. This activity is conducted both individually and in groups. To answer the projects, users must click on the Interacty button linked to Padlet. The students could observe each other's work and eventually engage in a collaborative discussion with the teacher to end up with a final answer. Following the conducted discussion, the

instructor assesses the students' comprehension by administering a quiz. This interactive quiz requires the students to click the provided button and aims to evaluate their understanding of the learning material and identify any crucial information. The teacher can assess the student's level of comprehension by reviewing the outcomes of both correct and incorrect answers, which are accessible in the statistics menu under the Quiz Result section. Additionally, these results can be exported as a CSV file.

Figure 6. Homework assignment



As shown in Figure 6, a group homework assignment is given to the students by the instructor at the conclusion of the teaching stages. The assignment requires the students to interpret key information based on YouTube videos by clicking the buttons provided during the class's final session. The instructor provides a selection of videos for students to choose from, allowing them to freely select in order to reduce similarities and prevent boredom among the students. Due to the fact that they selected the video on their own, they will experience increased motivation. Subsequently, the instructor requested that the participants submit their projects through the Google Classroom platform. Before the lesson ended, the instructor quizzed the students on the subject matter, how they felt about using the platforms to learn, what aspect of the assignments they enjoyed, and how easy or hard they thought the tasks were. Every student expressed their enjoyment of the learning topic, games, and activities throughout the entire session, as it was their initial experience with multimodal media. The utilization of Interacty and Padlet had not been previously implemented in the classroom. Based on the instructor's observation, the students exhibited interest, enjoyment, and focused

attention while learning with multimodal media.

In conclusion, the implementation of Interacty and Padlet in the ESP classroom has achieved several key objectives aimed at enhancing language learning. The initial phase, involving the preparation of authentic texts using the Interacty platform, successfully engaged students in a warm-up session that elicited relevant background knowledge. The whilst-activity, featuring a vocabulary quiz during the teaching-learning process, not only improved vocabulary understanding but was also aimed at boosting students' confidence in articulating unfamiliar information. The integration of Padlet for individual and group analysis of language features and structure further reinforced comprehension and facilitated collaborative discussions. These are typical activities conducted by the instructor in each meeting. Variations are created in each of the types of activity depending on the topic of the lesson throughout the semester.

The interactive quizzes administered through Interacty provided a dynamic means of assessing students' understanding, allowing the teacher to review outcomes and identify areas for improvement. The group homework assignment, coupled with the freedom for students to choose video content,

increased motivation and prevented monotony. The submission of projects through Google Classroom showcased a seamless integration of various digital tools to streamline the learning process.

The concluding student feedback indicated a positive response to the use of multimodal texts, with students expressing enjoyment, interest, and focused attention throughout the session. Despite being their first experience with Interacty and Padlet, the students appreciated the innovative learning methods and expressed enthusiasm for the multimedia content. The overall success of the implementation suggests that the use of these platforms has the potential to enhance engagement, motivation, and comprehension in ESP classrooms, providing a valuable contribution to contemporary language education practices.

The Learning Outcome of The ESP Students

The outcome of the group homework assignment determines the learning outcome. The assessment of this project is an important component to prove the effectiveness of multimodal media in ESP class learning implementation. The summative assessment is evaluated using a scoring rubric consisting of three scores, each with specific indicators and grading breakdown as seen in Table 2.

Table 2. Scoring Rubric

Category	Strong (3)	Marginal (2)	Weak (1)
Content	All statements noting similarities are placed in the center circle and all statements that note differences are placed in the correct outer circle.	Most statements are placed in the correct circle, but student mixed up a few statements.	Few statements are placed in the correct circle.
Number of quality statements	Student is able to identify at least 5 similarities and 5 differences.	Student is able to identify at least 3 similarities and 3 differences.	Student is able to identify less than 3 similarities and 3 differences.
Multimodal Design	The Venn diagram incorporates multiple modes of representation (e.g., text, images, color) to enhance understanding and engagement.	The Venn diagram incorporates some modes of representation but could benefit from more variety or clarity.	The Venn diagram does not incorporate multiple modes of representation, or the modes used are confusing or detract from understanding.

Language Features	The Venn diagram uses appropriate language features (e.g., comparison words, transition words, descriptive adjectives) to convey meaning and enhance clarity.	The Venn diagram uses some appropriate language features but could benefit from more variety or clarity.	The Venn diagram does not use appropriate language features, or the features used are confusing or detract from understanding.
Design & Color	The Venn diagram is visually appealing and demonstrates a clear understanding of design principles.	The Venn diagram is somewhat visually appealing but could benefit from more attention to design principles.	The Venn diagram is unappealing and does not demonstrate an understanding of design principles.
Spelling and Grammar	The Venn diagram is free of spelling and grammar errors.	The Venn diagram contains some spelling and grammar errors, but they do not detract from understanding.	The Venn diagram contains numerous spelling and grammar errors that detract from understanding.
Organization	The Venn diagram is neat, accurate, and easy to read.	The Venn diagram is somewhat neat, accurate, and easy to read.	The Venn diagram is messy, inaccurate, and difficult to read.

Table 2 exhibits the scoring rubric used by the instructor to determine the score for each student. The teacher evaluates their work using the rubric and assigns points based on the level of performance in each category. The learning outcomes of the ESP students exhibit varying results especially in terms of multimodal design production as seen in Figure 7 and Figure 8. The students creatively complete their projects by tailoring them to their video preferences. It emphasizes the students' autonomy and self-directed learning when it comes to designing and carrying out their projects. Consequently, students show the capacity to enhance their self-sufficiency and actively participate in completing the project.

The instructor provides options and examples of authentic materials to offer inspiration for students, thereby granting more rooms for their preferences. Two types of learning outcomes differ in how they represent key information through visual texts. Some of them have more interesting visual appeal, while the rest are rather plain.

Figure 7. Visually plain project

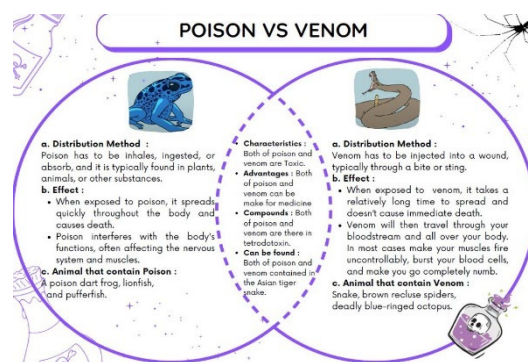


Figure 8. Visually more attractive project

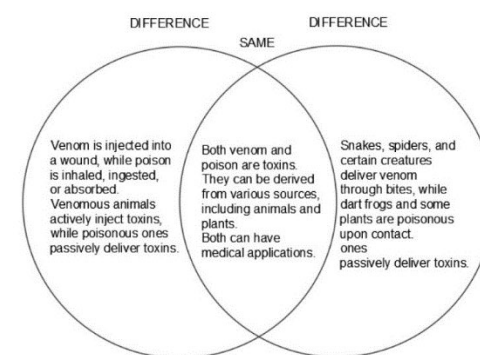


Figure 7 demonstrates students' project presented in a rather plain text. Meanwhile Figure 8 displays students' project with more appealing visuals. Among the students, 14 have visually appealing learning outcomes, while the remaining 13 have plain learning outcomes. In addition, with an average score of more than the required passing grade which is 80, 19 of 27 students successfully obtained scores above the passing grade. It demonstrates that they meet the assessment requirements in the classroom. The visually appealing learning outcome displayed in Figure 8 utilizes images and illustrations to visually convey information. Nevertheless, both outcomes were intended to accomplish the objectives of learning. The project enhances the field by enabling students to acquire knowledge of English for specific purposes, while also exploring the various modalities that students find advantageous in their learning process. In addition, when students engage in design practices, they generate signs through their actions in a specific context, utilizing different modes to communicate their intended meaning.

In conclusion, the instructor's strategic use of authentic materials to inspire students and identify their preferences contributes to the project's success. The diversity in the presentation of learning outcomes, with more projects featuring visual appeal through images and illustrations while others maintaining a more straightforward approach, reflects the flexibility and adaptability of multimodal approaches in achieving learning objectives. Both types of outcomes successfully accomplish the goals of the project, allowing students to acquire English for Specific Purposes and explore modalities that enhance their learning experience.

Discussion

The results show that teaching ESP using multimodal texts by incorporating web-based platforms, that is, Interacty and Padlet can be one of the useful options in ESP learning. This supports the previous studies reporting that web technologies may be used to advance and augment student learning (Davis et al., 2020; Loar, 2018; Schilling & Hammond, 2019). In addition, projects incorporated into the platform are proven to enhance the learning experience. This is in line with Sukiawati and Nurfaidah (2021) research which states that multimodal platforms provide a more practical and engaging learning experience for students as they can work on projects that are relevant to their interests and

context. As there was no previous research on the use of Interacty in relation to its specific applications for language learning, the current research provides useful information regarding the positive use of Interacty for ESP.

Additionally, our findings reporting the positive use of Padlet also enrich and support a number of previous studies testifying the benefit of using Padlet in language learning (Ali, 2021; Deni & Zainal, 2018; Dianati et al., 2020; Hammond & Waltemeyer, 2021; Lucas et al., 2021). Deni and Zainal (2018) stated that Padlet serves as a web-based storage space for teachers to house resources including links, images, text, and files. The current study combining the use of Interacty and Padlet in ESP learning environments by highly integrating technology in all assignments and projects requiring students to access two platforms at once results in positive use of both applications. This is in line with Nachimuthu (2018) that there are several benefits of incorporating technology into the classroom that include enhanced collaboration, communication, and knowledge creation. The designs of Interacty available with various components and various interactive designs make it easier for teachers to adapt its platform to their teaching plan. All features contained in both platforms are beneficial for both teachers and students as they can be utilized to further engage students in the course materials to achieve the learning objectives and to provide collaboration opportunities for them.

The design of the content presentation using Interacty in this study is based on specific genres that are relevant to the real-life themes of the Agro-Industrial ESP course. The genres include visual texts, interactive games, and written texts. The interactive games are quizzes and puzzles that test the student's vocabulary and comprehension. The written texts are examples of texts that students need to analyze and produce in the course. The genres are chosen to match the learning objectives and outcomes of the course, as well as to expose the students to different modes of text construction and communication.

In addition to Interacty, the course also utilizes Padlet, a collaborative online board that allows students to post and share their work. Padlet links are embedded within Interacty, so that students can easily switch between the platforms and submit their assignments. Padlet also enables the teacher and the students to give feedback and comments on each other's work, fostering a sense of community and collaboration. By using these multimodal resources,

the course enhances the students' meaning-making, engagement, and comprehension in the learning process.

The multimodal text design in the present study is adapted to help ESP students in mastering English in their specific field by respecting their background so that they can understand it based on the contexts. This agrees with research by Mutiaraningrum and Lestari (2023) that ESP students perceive multimodal learning as interesting, non-boring, interactive, and stimulating to their senses. The multimodal design is made as suitable as possible by adding enriched components, inputting the language features, vocabulary, and using authentic learning topics. Students are more motivated if they can connect with authentic learning (Girón-García et al., 2021). The researchers also use pictures and visual texts to make media content capture the attention of the students, convey information more efficiently, and enhance the retention of the message. This is in line with the findings of Kress et al. (1996) that pictures are able to give the students a clear illustration regarding the correlated topics in texts, tell the students what is going on, and what the subject in the text is talking about (Efendi, 2021). Thus, visual texts help students make sense out of the content and direct attention, increasing the possibilities that the learners will remember the materials.

The results of the implementation of Interacty and Padlet in ESP classroom show high enthusiasm for the students. This is because students have never had an experience of using interactive web-based platforms in their language learning. They find the different learning activity is fun. During the lesson, the students mentioned their high interest in this media. Especially in online classes where digital technology is used, teachers could identify which platforms are suitable for use. This agrees with the research by Koehler (2009) and Mishra (2013) as cited in Maryam and Paiman (2022) suggesting that teachers' technological-pedagogical knowledge is crucial to determine the right digital platforms to use for effective online teaching and learning conditions.

Additionally, with interactive web-based platforms they are easier to access everywhere at any time due to the involvement of combination of some modes into one media simultaneously. The interest is shown by the full involvement of students during learning. During the learning activities, they actively work on instructions, assignments, quizzes, and projects. The students individually also complete all learning

activities. Additionally, their responses assess that the implemented media is following the learning outcome. The assessment is based on the student's ability to understand the material through identifying real-life videos via the YouTube platform into visual text (multimodal assignment). Recently, it has been argued that multimodal, interactive, real-life L2 content increases engagement of different brain areas, which helps to improve both L2 learning and cognitive abilities (Li & Jeong, 2020; Li & Lan, 2021).

Moreover, the results of this study show that the ESP students did not encounter any technological challenges known from the learning outcomes of their group-work project produce multimodal texts. This finding contradicts Lee's (2019) research revealing a combination of positive views on technology-supported multimodal activities in oral training courses along with the presence of psychological and technological challenges during the production of multimodal assignments. In this study, the learning problem in the form of technological issues is not encountered by the students when producing multimodal texts, but the problems apparent when the students have to make sentences based on the language features they have just learned individually. This happens when they go silent when they are afraid that the sentences they compose are not entirely correct. The atmosphere was awkward and made the teacher give further examples on the topic.

This problem should be the researchers' evaluation to consider making a friendlier atmosphere in the classroom to make the students feel less tense. Various strategies for creating such an environment, including effective feedback (Monteiro et al., 2021), humanizing the student and validating good behavior (Sowton, 2022) are needed. Moreover, in relation to the use of technology in the classrooms, teachers need to be skillful in incorporating moral messages and character education in their teaching supported by suitable learning resources. The rapid development of digital technology with its likely disruptive impacts on students' morality and character necessitates teachers to reorient their roles.

Conclusion

The utilization of Interacty and Padlet in ESP courses has demonstrated both to be adaptive and effective method to enhance language learning. Enhanced language application can be achieved through increased engagement using gamified components, contextualized learning experiences,

personalized assignment submissions, and a complete assessment strategy. The overall implementations indicate that utilizing these platforms may improve students' engagement, motivation, and comprehension in ESP classes, making a useful contribution to present language education techniques. Essentially, the learning outcomes confirm that the multimodal texts are successful and have the potential to improve language learning by including different ways of communication and promoting meaningful activities among ESP students.

This study exclusively examines the facets of multimodal practices in an ESP class at the university in Indonesia who were enrolled in English for Specific Purpose as a required subject. Further studies need to be carried out in diverse contexts and with various people. To enhance the findings of this research, other investigations should be conducted, encompassing larger samples from diverse multidisciplinary domains to substantiate the existence of any disparities and elucidate the mechanisms behind multimodal practice in different contexts.

Disclosure Statement

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