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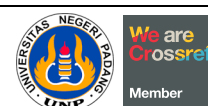
Enhancing English Language Learning in Higher Education through Instagram: A Design and Development Approach

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Abstract: This study investigates the utilization of Instagram as a tool for enhancing English language learning among higher education students. Amidst the growing influence of social media on student lifestyles, the research aimed to harness Instagram's potential for educational purposes, particularly in language acquisition. Employing a Design and Development (D&D) approach with the four-dimensional (4D) model - Define, Design, Development, and Dissemination - the study focused on creating and implementing English learning materials tailored for the Instagram platform. The research methodology included the use of a questionnaire to assess the effectiveness of the instructional materials. These materials were validated by a panel consisting of two media experts, two language experts, and two material experts, ensuring content validity. The study involved a purposively selected sample of 30 students, emphasizing first-semester English majors who were active Instagram users. This approach facilitated an evaluation of the reliability and validity of the instructional materials and the research instrument. Key findings indicated that Instagram as a learning platform significantly boosted student engagement and interaction in English language learning. The study revealed the importance of social media, particularly Instagram, in fostering a more interactive and engaging learning environment. However, the research faced limitations due to its reliance on self-reported data and its focus on a specific student demographic. The study recommends future research to expand beyond first-semester English majors and explore various social media content types for effective educational outcomes. Longitudinal studies and qualitative research methods are suggested to gain deeper insights into student interactions with social media in educational contexts. This research underscores the potential of integrating social media platforms like Instagram into educational curricula, tailored to the digital habits and preferences of contemporary students.

Key Words: Instagram in education; English language learning; Social media pedagogy; Higher education engagement; Instructional material design

INTRODUCTION

There has been much discussion on whether or not technological advancements fundamentally alter teaching and learning processes during the past few decades. It is arguable that the technologies arising and evolving in the twenty-first century, such as social media, have progressed in profoundly different ways than the technologies that came before them (Koehler & Vilarinho-Pereira, 2023). The term "social media" is commonly

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used to refer to new kinds of media that encourage individuals to participate interactively through the production and sharing of content that they have created themselves (Snelson, 2016). Consumption of digital media has become one of the usual methods by which people in this society have access to news and points of view on topics relevant to social, political, cultural, and educational concerns (Zaleski et al., 2016). People can provide information and events that are not covered in the news (for example, cell phone footage of protest events), they can share their opinions and engage with others regarding events that are reported in mainstream media through the use of social media (Dhir et al., 2013; Gholami-Kordkheili et al., 2013). Social media may be the best example of a technology that is profoundly different from and more powerful than prior technologies and offers new ways to engage with individuals that "admire" or "find intriguing" (Boyd & Ellison, 2007; Boyd, 2014). "Social media is a phenomenon" and "enabled an evolutionary leap ahead in the social component of online use" (Obar & Wildman, 2015). Social media's properties are not new, but their relation to one another because of networked publics generates new possibilities and challenges in education (Boyd, 2014).

At the same time, while social media is still only being implemented to a small extent in educational settings, it is becoming an increasingly popular method for conducting research. Furthermore, recent research and published works have shown that social media can effectively foster learning (Manca & Ranieri, 2016; Price et al., 2018; Tess, 2013). As mobile technology advances, the convergence of mobile devices and social media platforms has become a significant subject for educational study (Churchill, 2007; Obar & Wildman, 2015; Sharma et al., 2016). Educators must know what works and what can be improved to integrate social media into teaching and learning meaningfully. Mobile devices' accessibility, portability, interaction, and immediacy enable independent and diversified learning, increasing students' enthusiasm to learn and participate (Anwas et al., 2020; Zheng & Yu, 2016). Despite the benefits, social media-facilitated EFL learning has drawbacks. Social media alone would confine student participation to informal contacts rather than the appropriate mix of formal and informal learning. English language learning must go beyond synchronous or asynchronous conversations with peers (Wang et al., 2016). Thus, we must study how EFL students might use social media to improve their English skills, particularly by establishing a suitable interaction mechanism (Xu et al., 2017).

Social media users can find various services to suit their preferences. Conversations on social media can be had aloud or written down and can be either real-time (synchronous) or delayed (asynchronous) (Snelson, 2016). Multiple forms of media, including text, images, sound, moving pictures, computer-generated images, simulations, and even user-generated content, are all viable means of communication in social media. Some information on social media platforms is written in a language other than English which is widely recognized as a global language. According to Åberg et al. (2016), students can benefit from using digital learning tools like social media to enhance their writing abilities. It is demonstrated that online education increases student participation and interaction (student-centered learning). In particular, Al Mubarak (2016) found that the more heavily students used English-language online content, the more interested they were in learning English. The students' views on using the internet for language study were favourable (Gray et al., 2007; Sirivedin et al., 2018). Students can use the wide variety of social media content and borderless communication that it facilitates to improve their English language skills. That is to say; social media can be used as a platform to improve English skills. Through social media, practice can be done whenever and wherever it is most convenient (Sakkir et al., 2016). The media's global reach extends to every language and culture, including the native ones. One positive effect of media exposure is reducing the need for more outgoing social behaviours, such as speaking English aloud. The English language can be better mastered using social media for daily practice.

There has been a rise in interest in studying the efficacy of social media as a teaching tool (Liu, 2010). Sharing free and other resources online is becoming more commonplace, even in the academic world (Veletsianos, 2013). Graduate students, in particular, benefit from this shift since it opens up opportunities to connect with other professionals in their field, make academic connections with them, and network professionally (Romero-Hall, 2017). Past studies have found that college students like to read content from social networking sites. Even so, only some are willing to put in the effort required for learning activities like social media posting and answering (Lin et al., 2013). However, the use of Facebook and YouTube, among other forms of social media, has been investigated in various educational settings across cultural boundaries. Multiple research findings suggest that the educational benefits of social media were well-received in at least some cultures. Facebook and YouTube, for instance, have been reported to be widely used by college students in Saudi Arabia and Malaysia as resources for learning English (Khalid & Muhammad, 2012). Despite the generally positive findings obtained in these studies, scholars are divided on the topic. For instance, Sutherland & Jalali's (2017) literature analysis suggests that because of the lack of editorial oversight, YouTube is not a valuable free medical education resource, especially in online engagement.

Online engagement of students by educators is becoming increasingly common as a cutting-edge strategy for advancing the learning process. Some educators believe that the incorporation of online resources, such as social media platforms, will be essential to the development of the educational system in the years to come (Anwas et al., 2020; Chang & Lu, 2018; Koehler & Vilarinho-Pereira, 2023). The question of whether or not educators

should contact students using their personal social media accounts has become more prevalent as the usage of social media in the classroom has become more widespread (Obar & Wildman, 2015; Sharma et al., 2016). Each student must have prior knowledge of the topic being discussed before they can begin a social interaction. Because most of the students' prior knowledge is implicit, a process is necessary to guide the learners through explicating their knowledge. At this point, the researchers believe that a structuralized process benefits the learner by allowing them to explain their knowledge better. Therefore, additional research needs to be done about the design of generating English teaching materials based on social media and examining the potential and challenges for assessing learners' performance in many aspects of learning outcomes.

As a result of the ideas presented above, social media and a concept each have the potential to promote and improve the learners' capacity for social interaction and the organization of concepts, respectively. However, when viewed from the perspective of social learning, such as sociolinguistics, a learner necessitates an approach that blends those two applicable mechanisms to develop their conceptions and circulate their ideas among their peers to obtain their responses. As a result, this research aimed to combine the beneficial aspects of both mechanisms to maximize the usefulness of the experience for students learning English as a foreign language. To be more particular, learning outcomes that combine the benefits of a concept and the social media platform of Instagram were established and elaborated in the English subject at a private university in Indonesia. We reasoned that a comparison like this might provide light on how social media is being used by students from a wide range of backgrounds in higher education. The findings of this study may also be used as a framework for future investigatioThe method of research known as Design and Development (D&D) was the one that was used, and the 4D model was the technique that was applied (Define, Design, Development, and Dissemination). In the "definition" step, a needs assessment and English language instructional materials are included. During this stage, we will assemble the instrument grid and post the question instruments on Instagram. Validating the query instruments developed and sent out to the experts is the final step in the development cycle. The material, the media, and the language all played a role in validating the instruments. After the instrument was validated, it was given to students at a private university in Indonesia. These students were then evaluated on their performance on the instruments. After it was decided that the product met the required standards for quality, the diffusion step was finished. In addition, students were given online surveys to complete to measure their reactions to using Instagram as a social media platform for educational purposes.

The research instruments that were employed included the questionnaire and the test. This questionnaire sheet includes the validation sheets and the students' replies. Validation for interactive questions based on Instagram can be done with the help of the validation sheet. All aspects of the document, including its content, organization, and language, are considered. The findings of the instructional media design were evaluated and validated by two media experts, two language experts, and two material experts. The validators can confirm comments and suggestions in a column on the validation sheet. The following step in the pre-trial phase was to perform reliability testing on the items on the test. Purposive sampling was used on a limited scale of thirty students to assess the instrument's validity and reliability, both of which were proclaimed by the experts. A straightforward approach to presenting statistical findings was categorized with the help of an analysis of test item reliability carried out with the assistance of alpha Cronbach and SPSS 26. If the reliability coefficient value of an instrument is more significant than 0.70 (R11>0.824), then the instrument is considered reliable. The research on the development of Instagram as a medium for English learning materials included the participation of six professionals and the criteria mentioned in Table 1 can be used to establish the level of media validity in the following ways:

Table 1. Validity Criteria

Range Validity (%)	Level of Validity
85.01 - 100	Very valid, or can be used without modification
70.01 - 85.00	Valid, or can be used with minor revisions
50.01 - 70.00	Less valid or should not be used because it requires extensive revision
01.00 - 50.00	Invalid or not permitted to be used

Both qualitative and quantitative information was included in the data set for this study project. The findings of the expert team test evaluation produced qualitative data, whereas the results of the initial field test produced quantitative data. Consequently, the results of the expert team test produced qualitative data. The collection of qualitative data was done with the use of a theoretical validation sheet. The theoretical validity sheet consisted of several Likert-scale questions, and the team of experts only provided checklist (√) marks on the "1 (invalid)", "2 (less valid)", "3 (valid)", and "4 (very valid)" in the available column according to the assessment. After that, they provided the conclusion by circling one of the options: feasible to use, possible to use with improvement, or not worth using. A survey is used to gauge the degree to which students have adopted Instagram as a form of educational media in their practice. A Likert scale becomes the basis for the questionnaire's organization (Anguita

et al., 2003). The following choices were presented to respondents on the questionnaire: strongly agree (4), strongly agree (3), disagree (2), and strongly disagree (1). Adjustments are made to the findings of calculating student replies based on the criteria presented in the table 2.

Table 2. Criteria for Questionnaires Based on Student Responses

Score (%)	Category
80-100	Very interesting
60-80	Interesting
40-60	Less attractive
0-40	Not attractive

The method of research known as Design and Development (D&D) was the one that was used, and the 4D model was the technique that was applied (Define, Design, Development, and Dissemination). In the "definition" step, a needs assessment and English language instructional materials are included. During this stage, we will assemble the instrument grid and post the question instruments on Instagram. Validating the query instruments developed and sent out to the experts is the final step in the development cycle. The material, the media, and the language all played a role in validating the instruments. After the instrument was validated, it was given to students at a private university in Indonesia. These students were then evaluated on their performance on the instruments. After it was decided that the product met the required standards for quality, the diffusion step was finished. In addition, students were given online surveys to complete to measure their reactions to using Instagram as a social media platform for educational purposes.

RESULTS AND DISCUSSION

This research aimed to develop a set of English materials that would satisfy both the requirements for participation in the study and the participants' educational requirements. This study endeavour resulted in exploring the following findings for each stage of constructing a learning tool for assessment by using Instagram as a social media platform integrated into the learning process. These findings are illustrated in the sections that follow.

Define

As a consequence of the findings of the planned situation analysis (phase of defining the situation), which showed that the instructor wanted to utilize Instagram, a new type of English material in the English topic was developed in this study to meet this demand. The lecturer hoped, for various reasons, that there would be acceptable online interactions that they could use to evaluate the student's level of comprehension of the English texts they were studying. First, instructors cannot set up their own Instagram accounts because of the limited time available, even though they have heavy teaching loads and other administrative tasks. Second, finding acceptable online interactions to participate in might be challenging. According to him, some of the English resources at a student's disposal are unsuitable for applying the resources taught in the practical curriculum. The instructors need access to online English materials that can be accessed through Instagram. These materials must cater to students with varied levels of competence and cover all of the themes in the course outline. When it comes to learning English as a foreign language, the students who were enrolled in the first semester were considered beginner learners. They each have a unique set of skills in comparison to the others in their group. This distinction affects the myriad of distinct learning processes each pupil carries out. In light of these scenarios, each online English topic of English subject was established based on three levels of skill: basic skill, medium skill, and high skill. These levels are basic skill, middle-skill, and high skill. In addition, the online English resources that the students were asked to complete had questions that required them to identify the passage's primary concept, an expression, a detail, an implication, a reference, and an equivalent.

A set of preliminary phases of study called a needs analysis is done to assess the challenges students confront while trying to acquire new material. A review of the relevant literature and examining the issues that have been the subject of prior research are integral parts of needs analysis. According to the results of the research, the literature study discovered that students occasionally answer questions by making educated guesses. Students should adequately consider their responses in light of their comprehension of the questions (Ding et al., 2018; Dings & Spinath, 2021). While this is going on, (Lin-Siegler et al., 2016; Xiao et al., 2018) highlight that the resources available online have a high degree of veracity when determining an individual's requirements. Because the students will receive quick feedback on their performance, their learning will become more efficient if the materials are administered consistently. Additionally, it is argued that using online English materials, such as implementing a series of online English materials, is believed to improve students' academic results more than

using a standard test. That is because online English materials are believed to improve students' academic results (Lê & Polikoff, 2021; Snelson, 2016).

Design

The design step consists of producing the instrument grid, incorporating English learning material, and engaging questions using the application Instagram as a learning media. In order to determine the breadth of instructions for producing questions that will be utilized, the construction of the question instrument grid has as its primary purpose the determination of its scope (Khoiriyah et al., 2018). This stage aims to facilitate the creation of an acceptable question instrument by making it easier to do so (Bennett et al., 1984). A significant portion of the total design process consisted of preparatory work for the research instruments and the development of an early design for the instructional media to be used with Instagram (Liu, 2010; Romero-Hall, 2017). It was determined to use the media validation sheets as the learning media for this assessment tool, and it was decided to include them in the research instrument used to produce this assessment tool. This research instrument was used to construct this assessment tool. In addition to that, they checked the precision of the study instrument to see if it had been manufactured appropriately. During this time, the preliminary layout of the educational media was finished, and it was then loaded into the program for Instagram, which was operating in the background. The purpose of examining the assessment's content, media, and language was to identify the concepts utilized in the instrument (Åberg et al., 2016; Gray et al., 2007). While developing the learning media, the Competence Standard-Basic Competence (CS-BC) , learning objectives, learning materials, learning videos, and learning evaluations were all considered (Churchill, 2007; Tess, 2013).

Develop

The testing step is included in the development stage, which also includes the confirmation of the practicability of the assessment instrument by specialists through the utilization of Instagram. As part of this stage's activities, an expert validation was carried out to determine whether or not the contents designed, aspects of media and construction, and language that had been developed were suitable for measuring the variables that were going to be evaluated. This determination ensured that the next stage's activities would be practical (Åberg et al., 2016). Validation by experts was accomplished, and after obtaining permission from the relevant authorities, the researchers carried out restricted trials and primary research in the different sectors to which they belonged. Some validators have made adjustments and suggestions based on their findings during the validation process to achieve the most appropriate aspects for measuring what is being measured. It is done to obtain the most accurate results possible from the measurement (Fraenkel et al., 2012). Consequently, it was decided upon the recapitulation outcome of the theoretical validity interpretation of the initial product's material features in accordance with the validation criteria, as shown in the Table 3.

Table 3. Aspects of theoretical validity in initial product materials interpretation

Rate Aspects	Validation of Accomplishment (%)	Criteria
Construction	86.05	Very valid
Language	87.20	Very valid
Average	87.46	Very valid

When considering the validation achievement criteria (Ledesma et al., 2002), the data displayed in Table 3 indicate that the theoretical validity of the first product construction aspect can be categorized as "Very Valid." According to the validation findings, the percentage of the material rate media aspect that specialists completed was 88.25%, the percentage of the construction aspect was 88.45%, and the percentage of the rate aspect of the language used was 86.55%. The statistics showed that the validity level of English materials collected through the Instagram application satisfied very valid requirements. Because the proportion gained was larger than 85%, these materials could be used without requiring modifications (Natalia et al., 2018). The development outcomes produced very good validation findings from experts, suggesting that the evaluation instrument of English content via Instagram was practicable with very good criteria. The instrument determined that it meets all of the requirements. They gained a lot of new experiences as a result of conducting online evaluations with the English resources using the Instagram program. The process of using Instagram was similarly uncomplicated. The feedback of students who acquired the material efficiently and quickly clarifies this. The findings of the research as well as the recommendations from earlier studies, led to the conclusion that the assessment instrument should be designated as the assessment instrument for use in the classroom if it satisfies the validity criteria of the "valid" material aspect, the "valid" construction aspect, and the "valid" language aspect (Al Alhareth & Al Dighrir, 2014).

The specialists conducted a material aspect test to ascertain whether or not the evaluation tool was practically viable. In the context of this research, the term "material validity" refers to the degree to which the materials of an instrument are consistent with learning indicators. It was discovered that the validity of the instrument material was connected to the levels of appropriateness and competence representation that students needed to get in order for the process of instrument improvement to be considered finished (Hettiarachchi et al., 2014).

Disseminate

After that, the last part of this research would involve figuring out how students feel about the possibility of using Instagram as a form of educational media. According to the findings from all things under consideration, objective questions that have been appropriately developed are valid and trustworthy instruments for measuring students' meaningful grasp of the concepts. It is the consensus across all of the topics that were looked at. The outcomes of this study support evidence-based recommendations published previously by Zhan and Mei (2013) about the effectiveness of conceptual questions in assessing aspects of their level of understanding. The reliability of the questionnaire's results was evaluated with the help of SPSS 26 with the help of the Alpha Cronbach's coefficient. A coefficient of 0.824 was used to determine that the reliability of the questionnaire as a whole was reliable, and the reliability of the questionnaire was certified reliable (Ledesma et al., 2002). It is essential to consider the practicability of assessment tools in terms of the simplicity with which they can be utilized. This element of the assessment instrument covers the appearance and layout of the assessment instrument, as well as the application of the assessment instrument. It also includes a portion of the contents of the assessment instrument. This evaluation instrument's general appearance and layout are determined by its content, presentation, and visual design. After completing the research, students were given a questionnaire to fill out, the results of which were assessed using said questionnaire. The information is summarized in Table 4.

Table 4. Students' Responses Recapitulation Results

Indicator	Percentage	Criteria
Content Quality	86.25	Very interesting
Language	89.05	Very interesting
Convenience	82.75	Very interesting
Average	86.72	Very interesting

The average of the four indications is 86.72%, with most criteria being "very interesting." This research is supported by the average results of the four indicators, which include some highly intriguing criteria (Al Mubarak, 2016; Sun et al., 2021). In terms of appeal, 94.55% of those who participated in the survey identified the highly attractive criteria as the most significant factor to consider. Then, when evaluating the content, it scored 86.25%, which was categorized as highly intriguing. In addition, the results of the linguistic survey showed that 89.05% of respondents thought the topic was fascinating.

Last but not least, the ease of use offered by Instagram accounted for a substantial percentage of the 82.75% of responses rated as extremely fascinating. Students might be motivated to put in more effort on their homework if they utilize the Instagram app for their learning is so interesting to interact (Boyd & Ellison, 2007; Xue & Churchill, 2019). Additionally, it is specified that using Instagram as a social media platform for learning can boost student participation and engagement, and research backs up this definition (Gholami-Kordkheili et al., 2013; Koehler & Vilarinho-Pereira, 2023; Tess, 2013).

As a result of the findings, it has been determined that students can be engaged in learning activities through the use of Instagram as a social media platform for learning activities. This finding is confirmed by earlier studies that looked at related topics and argued that social media offer students opportunities to connect or associate with other people or knowledge (Liu, 2010; Romero-Hall, 2017; Sutherland & Jalali, 2017). These connections and associations have the potential to take on a variety of forms, including interactions and collaborations between learners and others (such as peers, instructors, or experts), interactions and collaborations between learners and diverse contexts (such as in informal or formal settings), and sharing of educational resources in a variety of integrated and diverse formats (e.g., integration of platforms in one place for discussion) (see Wang et al., 2016).

When looking at the results based on students' interactions, the findings suggest that certain students are inclined to use the social media spaces associated with their program in the English subject. In particular, those who study online claim to supplement their education with the content posted on Instagram as a social media space, and they use these spaces to build a community of fellow students with whom they can share their educational journey. These findings are consistent with those presented in prior studies on online students, which discovered that online students frequently experience feelings of isolation (Liu, 2010; Sutherland & Jalali, 2017; Veletsianos,

2013). When students and professors participate in synchronous or asynchronous virtual classrooms, they avoid the face-to-face interactions typically required by institutions (Gray et al., 2007; Al Mubarak, 2016; Sirivedin et al., 2018). It makes perfect sense for students who attend classes online to seek out online togetherness through their school's social media channels to engage and communicate with their fellow students in a community setting.

In general, the findings of this study indicate that the use of social media platforms like Instagram, which were designed specifically for student learning activities in the English subject, can be beneficial in certain respects, including the ability to share, discuss, trade, and learn new information. The students will test their preconceived notions about how instructional design should be done and will be exposed to various points of view during this process. According to the findings, the students' perspectives, experiences, and general knowledge of the application of social media in educational settings are significantly altered as a direct result of participating in these activities. Students will continue to learn and develop as professionals even in more traditional learning environments, provided they are exposed to information pertinent to their development. Administrators and faculty members need to be aware of this fact. When contributing to the social media channels of a graduate program, faculty members and other contributors, including other contributors, should be thoughtful in their posts.

CONCLUSION

This research comes from the significant limitation of relying on self-reported information from the graduate students who took part in the electronic questionnaire for its data collection. These individuals have perspectives regarding how they use social media and the benefits of their engagement. This analysis is limited in scope because it only looks at Instagram users in their first semester of school and whose subject is English. Graduate programs in other fields will use and participate in online communities and social media very differently than those in education. It is necessary to do additional studies to investigate further the several content categories posted throughout the social media platforms utilized by graduate schools. Future research investigations may conduct a thematic analysis using various social media platforms. Additionally, future studies should include a more in-depth qualitative component to provide a more significant explanation of using social media spaces as a program for students enrolled in different levels of higher education.

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