Digital Writing Assessment Through Padlet for Grade XII IPA 4 Students in SMA 4 Batam

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A R T I C L E   I N F O

A B S T R A K

Artikel ini menggali dampak transformatif dari penilaian menulis digital pada lanskap akademik, khususnya menargetkan siswa kelas 12 IPA di SMA 4 Batam. Dengan demikian, subjek penelitian ini adalah penulisan teks serta untuk mengetahui persepsi mereka tentang penggunaan Padlet untuk pembelajaran penulisan teks. Subjek penelitian ini terdiri dari 42 siswa kelas 12 IPA. Di era yang didominasi oleh teknologi, mengintegrasikan alat digital dalam pendidikan telah menjadi keharusan. Penelitian ini berfokus pada efisiensi dan kemampuan beradaptasi dari penilaian menulis digital untuk meningkatkan keterampilan menulis siswa sekolah menengah. Penulis mengeksplorasi berbagai dimensi alat penilaian digital, memeriksa kemampuan mereka untuk memberikan umpan balik yang tepat waktu, menumbuhkan lingkungan belajar kolaboratif, dan memenuhi gaya belajar yang beragam. Metodologi penelitian ini melibatkan analisis komprehensif terhadap data kinerja siswa, perspektif guru, dan dampak keseluruhan terhadap kualitas ekspresi tertulis. Selain itu, bertujuan untuk memberikan wawasan yang berharga bagi para pengajar, administrator, dan pembuat kebijakan yang mencari pendekatan inovatif untuk meningkatkan kemahiran menulis di era digital. Berdasarkan kuesioner dan wawancara yang dilakukan sebelum dan sesudahnya, penelitian ini bertujuan untuk menjawab pertanyaan-pertanyaan penelitian berikut ini: bagaimana siswa menafsirkan dan berinteraksi dengan berbagai komponen evaluasi menulis digital; bagaimana evaluasi menulis digital diimplementasikan secara berbeda dan apa konsekuensinya terhadap berbagai latar belakang linguistik; pengembangan profesional dan bantuan teknologi seperti apa yang diperlukan agar guru dapat menggunakan alat penilaian tulisan digital secara efektif?

A B S T R A C T

This article delves into the transformative impact of digital writing assessment on the academic landscape, specifically targeting Grade 12 IPA students at SMA 4 Batam. In doing so, the subject was text caption writing as well as to find out their perceptions of using Padlet for learning text caption writing. It consisted of 42 students who were in grade 12. In an era dominated by technology, integrating digital tools in education has become imperative. This study focuses on the efficiacy and adaptability of digital writing assessments to enhance the writing skills of high school students. Writers explore the multifaceted dimensions of digital assessment tools, examining their ability to provide timely feedback, foster collaborative learning environments, and cater to diverse learning styles. The research methodology involves a comprehensive analysis of student performance data, teacher perspectives, and the overall impact on the quality of written expression. Furthermore, aim to provide valuable insights for educators, administrators, and policymakers seeking innovative approaches to elevate writing proficiency in the digital age. Based on the pre- and post-questionnaires and interviews conducted, this study aims to address the following research questions: how do students interpret and interact with various digital writing evaluation components; how are digital writing evaluations implemented differently and what are the consequences on various linguistic backgrounds, ability levels, and demographic groups?; what kind of professional development and technology assistance are required for teachers to use digital writing assessment tools effectively?

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1.   INTRODUCTION

The use of technology in education has become essential in this dynamic environment, changing conventional wisdom and creating opportunities for creative educational strategies (Maria Magdalena Purba & Badrah Zaki, n.d.). Digital writing evaluation is one of these revolutionary projects that stands out as a key component, with the ability to completely change how we assess and improve students' writing abilities. This study examines the effects of digital writing assessment on Grade 12 IPA students' academic journeys through study carried out at SMA 4 Batam.

The growing study highlights the enormous consequences of the integration of digital instruments in education, a topic of great scholarly discourse. Technology and education have a dynamic relationship that can lead to better student results, more individualized learning experiences, and increased engagement. Particularly digital exams have drawn interest because they can go beyond the constraints of conventional, offering a more sophisticated and dynamic picture of students' competencies.

The dynamic nature of education and the need to equip students for a digitally-driven future highlights the need for this research. One aspect that is intrinsically included in digital writing assessments is the importance of timely and targeted feedback in improving learning outcomes, according to a study by (Hattie and Timperley, 2019). Furthermore, (Fullan and Langworthy's, 2020) research emphasizes how crucial it is to include technology to foster the development of 21st-century abilities, such as proficient written communication.

This research is to explore the transformative potential of digital writing evaluation, concentrating on SMA 4 Batam Grade 12 IPA students specifically. By focusing on the nuances of text caption writing and assessing how students feel about using Padlet as an online learning environment, we are hoping to shine a light on how technology affects writing skills in high school curricula. Educators must comprehend how these tools affect learning outcomes as education continues its digital transformation.

Literature Review

Digital writing evaluation tools have surfaced as a novel approach to effectively assess and facilitate the growth of students' writing skills. Artificial intelligence is used in automated essay scoring (AES) to assess textual characteristics such as overall writing quality, grammar, and word usage (Shermis & Burstein, 2019). According to earlier research, AES assessments closely match those of human raters while requiring less time and effort from the scorers (Wang & Brown, 2020). Additionally, teachers may provide students regular, low-stakes writing projects and fast, personalized feedback thanks to digital writing platforms. The purpose of this project is to close knowledge gaps on the efficacy and application of digital writing assessment in real-world classroom settings. The findings will offer useful suggestions for incorporating these new technologies to improve writing instruction and learning. The students of the twenty-first century have grown up in a digital world. Their everyday lives and literacy practices are entwined with technology, which transforms how they create and consume information (Henderson, 2018). The abilities required to locate, assess, create, and distribute information using digital technology are all included in the concept of digital literacy (Hobbs, 2020). It calls for both technical expertise and critical analysis of how media messages influence comprehension. To succeed in postsecondary education and the contemporary workforce, students nowadays need to acquire strong digital literacy abilities (Gurung & Rutledge, 2019). But a lot of writing tests ignore digital composition in favor of focusing just on traditional print literacy.

This shows a discrepancy between the multimodal writing needed in online environments and the way students are taught to write (Reid, 2021). While fostering digital literacy, integrating digital writing tools can aid in closing this gap. Students must use important technical and cognitive abilities to apply features including multimedia creation, collaborative editing, and online writing distribution (Hicks, 2018). By incorporating digital writing tools, assessment options in real-world digital settings are expanded. Features like social editing, automatic grading, and interactive feedback make use of the technology that are already a part of how students learn (Warschauer & Ware, 2018). The incorporation of technology and media tools into educational settings is consistent with constructivist methodologies, which acknowledge students' pre-existing digital knowledge and experiences. Multimodal composition, which integrates text, graphics, audio, and video, is used in digital writing. In order to become digitally literate in the real world, one must foster creativity, teamwork, and genuine communication skills (Alvermann, 2019). Evaluation in these interconnected technological environments is made possible by the use of digital writing assessments. Automated writing assessment systems are capable of evaluating multimedia elements and their connections in addition to text. Formative evaluations can be integrated with interactive writing exercises utilizing a variety of media thanks to digital platforms. Real-world context-aligned genuine assessments and student-centered learning are crucial in the twenty-first century. Writing programs need to change to Contains how data is collected, data sources and ways of data analysis.

2.   METHODS

This study utilized a mixed methods approach integrating both quantitative and qualitative data to evaluate the implementation of digital writing assessments. Participants were 40 students in SMA 4 Batam, grade 12 class IPA 4 English class that were randomly assigned to either implement the intervention group or continue paper-based writing assessment for a semester. Quantitative data collected included pre/post writing scores, vocabulary and grammar assessment results, surveys on writing attitudes, and tool usage analytics. Qualitative data included open-ended questionnaires about students' experience using the digital writing platform, as well as semi-structured interviews with teachers and students. A sequential explanatory design was used, first gathering quantitative results, followed by collecting qualitative data to help explain the quantitative findings. Integrating numeric data on writing progress with participants' descriptions of their experience allowed comprehensive analysis of how the digital writing assessments were implemented and their impacts on student writing outcomes. Providing a mixed methods narrative can inform effective evidence-based practices for leveraging these emerging technologies in secondary writing instruction.

Participants

The participants were 42 intermediate-level English language learners recruited from grade 12 class IPA 4 in SMA4 Batam. There were 21 male and 21 female in the class. Participants' ages ranged from 15 to 16 years old and they came from same background language which most of them are from Batam. All participants had 3 years of prior learning English language in high school. Students were randomly assigned to the experimental or control groups, balancing for age, gender, home language, and prior experience with technology. The participant sample aimed to represent the diversity of English learners at the high school level in this region.

Instrument: Questionnaire and Interview Sheet (Link Blueprint)

The digital writing assessment tool used in this study was Padlet, an online virtual bulletin board that allows students to write texts, upload images/videos, and arrange multimedia elements. Students completed collaborative writing projects on Padlet over the semester on topics related to class themes. Writing products were evaluated by the teacher using an analytical rubric assessing content quality, organization, multimedia integration, and conventions. Students also completed three individual reflective writing tasks on Padlet about their experiences with collaborative writing. These were assessed using a holistic rubric (1-4 scale) measuring reflection depth and integration of key concepts. An open-ended questionnaire was administered at end of semester to gather students' perspectives on using Padlet for collaboration, writing practice, feedback, and engagement. Questionnaire data were analyzed inductively to identify emergent themes. Usage analytics were gathered from Padlet including writing frequency, collaborators, edits made, features used, and time on task. Analytics provided descriptive data on how students utilized Padlet for writing.
Link : Questionnaire Form.xlsx

Procedure: Steps in Conducting the Case Study

This study was conducted only one class with grade 12 IPA 4 class. One class (n=42) was randomly assigned to the Padlet writing group. Students in the groups completed a "caption" writing scored using a rubric. The group then engaged in collaborative writing activity on Padlet on topics related to caption. Groups of 4-5 students composed on shared Padlet boards including text, images, videos and links. Projects were graded using an analytical rubric. Students also completed three individual reflective writing tasks on Padlet. The group completed the same number of writing assignments using traditional methods. They were assessed using equivalent rubrics. Usage analytics were compiled from the Padlet group's boards.

Data Analysis

Quantitative data were analyzed using statistical software. Padlet usage analytics were summarized using descriptive statistics to show participation patterns. For the open-ended questionnaire, inductive thematic analysis was utilized. Student responses were coded through an iterative process of identifying and reviewing emergent themes related to perceptions of using Padlet for writing instruction and assessment. Major themes were derived from aggregating similar codes. Two researchers independently coded all data, meeting regularly to discuss and reconcile their coding through consensus. Qualitative themes were then triangulated with the quantitative achievement and usage data to provide a comprehensive analysis of how Padlet impacted student writing outcomes and experiences. This mixed methods data analysis integrating detailed statistical comparisons, descriptive digital participation metrics,

and thematic qualitative coding provided robust insights into the use of Padlet as an alternative writing environment for high school students.

3. RESULT AND DISCUSSION

While existing research on digital writing tools shows promise for enhancing student collaboration and engagement, there is limited evidence specifically on using Padlet for writing assessment in classrooms. A study by (Lee, 2020) piloted Padlet for collaborative writing activities but did not analyze its use for formal assessment. Additional research is needed to establish the efficacy and best practices for Padlet-based writing assessment. As this tool is relatively new, there are open questions around how factors like the user interface, multimedia options, and peer feedback on Padlet would impact student writing quality and performance.

In our proposed study, we aim to address this gap by implementing Padlet for formative and summative writing assessments in 12th grade English classes. We will compare writing scores and perception survey data to baseline measures from traditional paper assessments. The findings could provide initial evidence on the benefits, limitations, and considerations when adopting Padlet as a digital assessment platform. However, as a short-term pilot with a small sample, the results may have limited generalizability. Further iterative studies across different subjects, age groups, and educational settings would be valuable for developing robust pedagogical strategies for this tool. This research plans to take a step toward determining Padlet's suitability and best practices for writing assessment, but considerable work remains to fully investigate this emerging area.

Result from Data Collection Questionnaire

The findings of the questionnaire have been categorized into 10 sections for clarity and organization. As follows:

a. Padlet is interesting for me to write text caption
b. Padlet is comfortable for me in learning process
c. Padlet gives me more attention in learning process
d. Padlet motivates me more for studying in classroom
e. Padlet is easy for me and learning process become more organized in classroom
f. Padlet gains me more material about writing text caption
g. Padlet give me a guidance to write text caption
h. Padlet helps me in learning achievement
i. Padlet makes learning time become narrower
j. Padlet is not affective because lack of interaction between students and instructor.

Table 1. Interest on Padlet

Items	Responses	
Padlet is interesting for me to write text caption.	Agree	23 (92%)
	Disagree	2 (8%)

This table shows responses from individuals about their perception of Padlet when it comes to writing text captions. It seems like the majority, 92% to be exact, find Padlet interesting for this purpose and agree with the statement. On the other hand, a small minority, 8%, disagree. It suggests that the majority of respondents have a positive view of Padlet's suitability for writing text captions.

Based from the journal data that we referenced, it showed that most students answered strongly agree and also agreed that they were interested in writing descriptive text using the media Padlet. It can be demonstrated by the same frequency between those who strongly agree and agree with this statement. The total number of scores was 13 of 27 students with a percentage of 48.1% of total responses.

Table 2. The Comfortness Learning Through Padlet

Items	Responses	
Padlet is comfortable for me in learning process.	Agree	24 (96%)
	Disagree	1 (4%)

This table seems to be summarizing responses related to the comfort level of using Padlet for the learning process. It looks like 96% of the respondents agree that Padlet is comfortable for them in the learning process, while only 4% disagree. This suggests a high level of satisfaction and comfort among the majority of users with Padlet as a learning tool. The numbers indicate a strong positive sentiment towards the platform in facilitating the learning experience.

Based from the journal data that we referenced, it showed that most of the students answered agree with the statement of whether they felt comfortable or not while writing descriptive text using Padlet. It could be seen that the frequency was 21 out of 27 students with a percentage 77.7% of total responses.

Table 3. Attention in Learning Process Through Padlet

Items	Responses	
Padlet gives me more attention in learning process.	Agree	21(84%)
	Disagree	4 (16%)

This table represents the responses to a statement about Padlet and its role in the learning process. 21 respondents, which is 84% of the total responses, agree that Padlet gives them more attention in the learning process. 4 respondents, which is 16% of the total responses, disagree that Padlet gives them more attention in the learning process. This table suggests that a majority of the respondents find that Padlet is beneficial and provides them with more attention during their learning experience.

Regarding on the data from the journal that we referenced from the journal, it was understandable that most students answered agree with the statement. After studying descriptive texts using Padlet, they were able to pay more attention to the learning process. From these data, it was understandable that most students answered agree with the statement. After studying descriptive texts using Padlet, they were able to pay more attention to the learning process. From these data, it can be seen that the frequency was 16 of 27 students with a percentage of 59.2% of the total responses.

Table 4. Motivation in Studying Through Padlet

Items	Responses	
Padlet motivates me more for studying in classroom.	Agree	23(92%)
	Disagree	2 (8%)

The table presents feedback from individuals regarding their motivation for studying in the classroom with the aid of Padlet. This indicates that 23 out of the total respondents (92%) agreed that Padlet motivates them more for studying in the classroom. In other words, a significant majority of participants find Padlet to be a motivating tool in the classroom environment. On the other hand, 2 respondents (8%) disagreed with the statement, suggesting that a small minority feels that Padlet is not as effective in motivating them for studying in the classroom. Overall, the majority of respondents seem to be positively inclined towards using Padlet as a source of motivation for studying within a classroom setting.

Based on the data from the journal that we referenced, it was understandable that most students answered agree with the statement. They answered that after learning descriptive texts using Padlet platform, they were more motivated in the learning process. From these data it can be seen that the frequency was 17 out of 27 students with a percentage of 63% of the total responses.

Table 5. The Easiness Learning Through Padlet

Items	Responses	
Padlet is easy for me and learning process become more organized in classroom.	Agree	21(84%)
	Disagree	4 (16%)

This table summarizes responses to a statement about Padlet's ease of use and its impact on the learning process and classroom organization. It seems like a majority, 84%, agree that Padlet is easy for them and contributes to becoming more organized in the classroom. Only 16% disagree, suggesting that most respondents find Padlet user-friendly and beneficial for classroom organization.

Based on the data from the journal that we referenced, it can be seen that most of the students answered strongly agree with the statement and the frequency was 13 of 27 students. They replied that the Padlet was easy for them and the learning process became more organized in the classroom. The percentage of students who voted for this statement was 44.3% of the total responses.

Table 6. Improved Text Caption Material Through Padlet

Items	Responses	
Padlet gains me more material about writing text caption.	Agree	20 (80%)
	Disagree	5 (20%)

In the utility of Padlet for acquiring additional insights into writing text captions, it was found that 80% or 20 students endorsed its efficacy. These students positively acknowledged that Padlet enhances their understanding and proficiency in crafting text captions. Conversely, 20% of the respondents, constituting 5 students, expressed dissent, indicating a divergence of opinions regarding the platform's effectiveness for this particular purpose.

Looking at data from our reference journal, it's clear that a lot of students, about 62.9% (17 out of 27 students), strongly agreed that using Padlet helped them learn more about writing descriptive texts. This matches up with what the majority of students said in the Padlet survey, suggesting that Padlet consistently helps students with various aspects of writing, including descriptive texts. So, while most students find Padlet beneficial, there are still some who don't see it the same way.

Table 7. Guide to Writing Text Captions Through Padlet

Items	Responses	
Padlet give me a guidance to write text caption.	Agree	18 (72%)
	Disagree	7 (28%)

In addressing the query about Padlet's efficacy in guiding text caption writing, a noteworthy consensus emerged among 72% of the respondents, comprising 18 students, who recognized the platform's effectiveness in providing valuable assistance. In contrast, 28%, represented by 7 students, expressed dissenting perspectives, highlighting a divergence of opinions on the extent to which Padlet serves as a guiding tool for text caption creation.

Insights from the data presented in our reference journal demonstrate a high level of agreement among students regarding Padlet's guidance in writing descriptive texts. A significant 77.7% of the total responses, consisting of 21 out of 27 students, expressed agreement with the statement that Padlet provides helpful guidance in crafting descriptive text. This aligns with the broader sentiment from the survey, emphasizing a consistent positive perception of Padlet's effectiveness, particularly in the realm of descriptive text writing guidance.

Table 8. Achievement of Learning Through Padlet

Items	Responses	
Padlet helps me in learning achievement.	Agree	19 (76%)
	Disagree	6 (24%)

The data pertaining to the impact of Padlet on learning achievement reveals that out of the total respondents, 76% or 19 students expressed agreement, affirming that Padlet assists them in their learning achievement. This indicates a substantial majority of participants who perceive Padlet as a valuable tool in enhancing their academic success. Conversely, 24% of the respondents or 6 students disagreed with the statement, suggesting a smaller proportion with a differing opinion on the effectiveness of Padlet in contributing to learning achievement.

Examining data from the reference journal, a noteworthy 59.2% of students, specifically 16 out of 27, agreed that Padlet played a role in enhancing their learning achievement after studying descriptive texts. While this percentage is slightly lower than the consensus from the survey, it still underscores a

considerable majority of students recognizing Padlet's positive impact on academic success. The comparison highlights a consistent trend in perceiving Padlet as a beneficial tool for learning achievement, with variations in the degree of agreement among students in the two datasets.

Table 9. Time Efficiency of Using Padlet

Items	Responses	
Padlet makes learning time become narrower.	Agree	14 (56%)
	Disagree	11 (44%)

The analysis of feedback regarding the impact of Padlet on the duration of learning time indicates that 56% of the participants, specifically 14 students, agreed with the statement that Padlet makes learning time more efficient. This suggests a majority perceive Padlet as a tool that helps streamline and condense the learning process. Conversely, 44% of the respondents, represented by 11 students, disagreed with the notion, indicating a sizable minority with a differing perspective on whether Padlet contributes to narrowing the learning time.

A similar trend also emerged from reference journals, where 40.7% of students stated that they disagreed with the statement that Padlet makes the learning process narrower after studying descriptive texts. Although the percentages were almost identical, there was a slight difference in the opinion framework between the survey and the journal data, highlighting the theme of skepticism or consistent disagreement about Padlet's influence on the duration of the learning process. The comparison emphasizes the need for a different understanding of how students perceive Padlet's role in optimizing learning time.

Table 10. Effectiveness of Using Padlet for Classroom Interaction

Items	Responses	
Padlet is not affective because lack of interaction between students and instructor.	Agree	16 (64%)
	Disagree	9 (36%)

The examination of opinions concerning the effectiveness of Padlet in the context of student-instructor interaction reveals that 64% of the participants, specifically 16 students, agree with the assertion that Padlet is not as effective due to a perceived lack of interaction between students and the instructor. This suggests a substantial majority with concerns about the platform's impact on fostering meaningful engagement in the learning process. On the contrary, 36% of the respondents, represented by 9 students, disagree with this viewpoint, indicating a notable minority who perceive Padlet differently regarding its ability to facilitate interaction between students and instructors.

Upon examining data from the reference journal, a similar trend is observed, with 29.6% of students expressing disagreement or strong disagreement regarding Padlet's effectiveness in promoting student-instructor interaction. While the percentages align closely with the dissenting viewpoint in the survey, the journal data provides additional granularity by distinguishing between disagreement and strong disagreement. This comparison underscores a consistent theme of skepticism or disagreement regarding Padlet's efficacy in facilitating robust student-instructor interaction, with variations in the intensity of dissenting opinions between the survey and journal datasets.

4. CONCLUSION

In conclusion, the integration of Padlet into digital writing assessment processes for Grade 12 students at SMA 4 Batam has showcased promising results. Its user-friendly interface, coupled with its ability to enhance classroom organization and foster engagement, positions Padlet as a powerful tool in the arsenal of modern educators. As we continue to embrace the future of education, the positive outcomes observed in this study encourage further exploration of innovative digital platforms to elevate the learning experience for students. Padlet, with its versatility and effectiveness, stands as a beacon in the realm of digital writing assessment, pointing towards a more collaborative and organized educational landscape for both students and educators alike.

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