

Student needs in digital persuasive writing: Integration of literacy, rhetoric, and reflective awareness

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ABSTRACT

This research examines how students learn to produce digital persuasive writing across social, business, and theoretical areas, emphasizing skills in digital literacy and rhetorical competence and reflexivity regarding social and business fields. The findings indicate a mismatch between what students are currently able to do and what they will require in academic and professional settings. Drawing on both quantitative and qualitative data collected using questionnaires, interviews, classroom observations, and documents of Akademi Bisnis Lombok's digital business program students, this research utilizes a mixed-methods approach. The findings of this study show that many students have difficulty with forming coherent arguments, using rhetorical strategies (ethos, pathos, and logos), and making use of visual components in digital media. These issues demonstrate an incapacity to transfer rhetorical skills to authentic situations. The study identifies this and stresses the importance of project-based learning including collaborative and reflective work within digital and digital-based media in advancing adaptive, critical, and context-specific communication skills within digital and digital-based contexts.

Keywords: Digital persuasive writing, literacy integration, rhetoric, reflective awareness

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INTRODUCTION

Digital technology has revolutionized the process within which humans write and distribute ideas of their own, especially through the publication of ideas that takes place online. What is persuasive writing when it is no longer just sharing an idea as an argumentation, or the statement of an idea is a persuasive piece of writing that uses evidence as both a source to make a point, and a basis to make a strategic choice. More properly, writing is seen as a social process, one which occurs collectively, when what is said becomes meaningful according to how users interact, process, and merge various forms of language. With this, writers must be careful and logically structured in order to persuade audiences in digital environments. They should also show sophistication in analytical competence, coherence, and understanding of audience engagement strategies (Alkthey & Al-Qiawi, 2020; Ponomarenko et al., 2024).

We need to think of digital persuasion based on logic with emotion and visuals. These elements work together in a multimodal environment, where meaning is constructed from text and elements like imagery, layout, and digital media. Visuals are illustrative tools but also play an important role in shaping audiences' perceptions and emotions, and helping build credibility. This viewpoint provides a detailed, integrated framework for multimodality which perceives communication as an integration of different signs and symbols (Mehta & Guzmán, 2018; Amit-Danhi & Shifman, 2018; Tyazhlov et al., 2021).

Digital literacy has grown into more than the use of technical tools. It is also, today, thinking critically, acting responsibly and constructing knowledge in a reflective manner. Now that the digital experience is becoming so complex, it gets critical to evaluate for accuracy and get its subtext, which leads to ethical online communication (Gilster, 1997; Li & Yu, 2022). These advances in academic

writing are indicative of the need to engage with the sources to understand the general social impacts that the communication may have (Aini, 2023; Susanty, 2024).

Thus, in the field of learning it could be concluded that in order to develop competencies such a methodology must be embedded in and responsive to learners, it must systematically break down the gap between existing and anticipated competencies in line with expectations while also helping to integrate contextual cognitive and motivational elements into curriculum development relevant to those competencies (Hutchinson & Waters, 1987; Nation & Macalister, 2010; Aladini et al., 2024). Likewise, reflective practice helps learners critically and objectively assess their learning experiences, identify difficulties and improve their strategies for continuous and impactful improvement in learning (Dewey, 1933; Mezirow, 1997; Chaika, 2023).

While theory has advanced a lot, digital communication has increased the complexity of teaching persuasive writing. Many teaching methods overemphasize technical skills such as idea generation and organization, while ignoring communication of the broader context. As a result students have varied and changing audiences as well. They tend to send messages that are both somewhat less persuasive and innovative (Regan et al., 2017; Jian-chun et al., 2023).

This poses considerable problems for spreading misinformation in the internet age. Even though information flows freely, it does not automatically mean that it should be considered a factual reference alone; some students seem to lack the skills to critically appraise and filter information, or as well, to construct robust and evidence-based arguments. This barrier undermines the academic writing of authors and hinders the creation of digitally literate human resources (Tynes et al., 2021; Rini & Nabhan, 2023).

The current pedagogical approach emphasizes the technical cognition, with the end result being the neglect of affective engagement, a part of one's capacity to emotionally engage the audience. Thus, communication interactions within contextual nuances are not sufficiently developed, particularly in digital spaces, where the audience's perspective is deemed a major aspect of message effectiveness (Yenisoy & Tatar, 2025; Selva et al., 2024).

There are lots of ways how digital tools including mobile apps and collaboration platforms could help improve the learning process, but their use does not usually reflect a strong pedagogically robust base, hence researches studying the applicability of these technologies to create meaningful learning experiences but little to suggest improvements in learning outcomes (Ponomarenko et al., 2024; Regan et al., 2017). Inability to develop digital literacy competencies has further amplified these challenges. Unfortunately, many people struggle to engage in self-evaluation process, and to critically assess information accuracy, building sound, fact-based arguments that appeal and are credible for their intended audience.

This results in a slump in academic presentation and greatly restricts students' critical thinking in digital environments where proper interpretation of the informative information is critical (Tynes et al., 2021; Rini & Nabhan, 2023). Visual components are crucial for making communication more robust in multimodal communication. Charts, graphics and infographics allow a person to communicate complicated thoughts and encourages the audience to trust and experience the message. Text and visuals connect more meaningfully to people emotionally to facilitate better processing of information, thus making communication more effective (Mehta & Guzmán, 2018; Amit-Danhi & Shifman, 2018). Studies have consistently shown the need for digital literacy when making a transition toward a job and when trying to succeed in school. Individuals with the highest digital skills are more engaged, perform better, and comprehend multifaceted information (Li & Yu, 2022). Being reflective is a key part of the process of quality learning.

Through reflection, students reflect, analyzing experiences, focusing on those experiences to see how they identify areas of weakness, they improve their practice. This leads to a much richer understanding and outcomes. Reflective practices, among other things, help the students develop critical consciousness and transfer this knowledge to communicate, with the intent of understanding the issues of various applications (Widiastari & Fithriani, 2024; Liu & Ling, 2025). Requirements analysis is an essential ingredient of a curriculum that remains current and adaptable. They are able to design teaching practices that respond to the real-life experience by explicitly pinpointing the need and problems of their students (Ismail & Daud, 2023; Dwisusila et al., 2023).

Within a multimodal communication the visual element is the cornerstone of message reinforcer. The use of instruments as charts, graphs, infographics etc, assists in translating complex ideas and conveying the message in a simple and efficient way. These visual props not only enhance comprehension, but also enhance the confidence of the audience, and increase their participation by being visible and reliable in conveying the information. By appropriately combining textual and visual elements, communication becomes far more significant, as it taps into both the cognitive and emotional facets of the audience together. Thus, this synchronization encourages a better cognitive processing and therefore, a higher effect of the message transmitted (Mehta & Guzmán, 2018; Amit-Danhi & Shifman, 2018).

And in education and career readiness, digital literacy looks like a key competency. With good digital skills, people are equipped with the knowledge and support to work efficiently in a complex information environment, are more engaged and perform better academically and professionally. Digital literacy doesn't only comprise of technical skills, but also include areas such as critical analysis, information appraisal, and effective communication with digital media. In this regard, it serves as a core competency by which the learners gain the skills to face the challenges in contemporary work and knowledge-based societies (Li & Yu, 2022).

This study proposes to implement a unified education framework based on experiential learning approaches, persuasive communication strategies, as well as the digital competency sets out in this study. Instead of focusing on these two domains in isolation, the framework highlights their interrelated nature in tackling modern issues in digital communications. It takes a reflective, sequential learning approach, allowing learners to improve over time, utilizing frequent practice and structured feedback. In this model, multimodal features are not seen as incidental features but as vital devices in meaning building and communication.

Also, the framework highlights how instructional design must be contextualized according to learners' skills, interests and realities. In order to do this, the focus of this study is on creating a demand-driven approach towards curriculum development, which will help in making the learning experience relevant and responsive to authentic what the learners need. Particularly when it comes to addressing disparities in the present of practice and the expectations of the digital communication sphere this approach is of significance. By adapting educational techniques to students' requirements, the framework makes learning more meaningful and relevant. Furthermore, the study focuses explicitly on raising users' ethical and social responsibility awareness.

Students are taught to think deeply about questions about the consequences of their practices of communication as well as knowledge generation that respects integrity. This point of view is particularly important in an age when the digital sphere has had a major impact on popular debate and people have to be more than simply good communicators – they also need to act responsibly in spreading information. When you do, ethical concerns are incorporated so that digital literacy is less technical than ethical. In addition, the framework also takes a more diverse approach to the concept of learning by integrating multiple domains of learning, including cognitive, affective, and multimodal dimensions in a total approach to learning. It also acknowledges that effective learning does not only rely on the use of knowledge and the mental stimulation, but also emotional investment and the capability to make sense of experience of meaning in an emotional response to meaning through the communicator's meaning in different modes.

Incorporating the above dimensions allows the model to contribute to further development of the digital persuasive writing field, to provide a richer understanding of the processes for development and application of digital communication skills among learners' understanding and application of digital persuasive writing in digital contexts. Its reflective part also aims to aid the advancement of metacognition that aids in the analysis of the process in which learners gain a sense of their development, in that it helps to assess the progress they are making and to take the necessary decisions on their skills if they modify these over time. Students use the repetition of cycles of planning, creating and revisiting and reflecting, to become aware of their strengths and weaknesses. It promotes not only better learning but also autonomy and self-regulation which are vital in the pursuit of lifelong learning. Last but never least, this research suggests a comprehensive model incorporating cognitive, affective and multimodal aspects of learning. In this way it also contributes to advances in digital persuasive communication studies.

The results are designed to help develop not only digitally literate learners who are also engaged in critical thinking, reflective work and adaptability of learning. Such competencies are all the more relevant in a complex digital age in which the public are expected to both live and survive as never before; constantly changing forms of communication which provide new directions and opportunities.

METHOD

The strategy adopted for this research was exploratory sequential mixed-methods research, chosen to offer a fuller description of the issue of digital persuasive writing. This approach is not just a fusing of quantitative and qualitative methods, but they go together in an evolutionary process. As the first part, quantitative data was gathered, then through in-depth qualitative research were developed further to elucidate non-quantifiable meanings. For the first stage, the researcher conducted a Likert-scale questionnaire to assess the challenges students have encountered and their desired learning requirements in the domain of digital persuasive writing.

The instrument was created to gather some general data about the overall trends of emerging issues in students, especially in regard to their ability to establish arguments, how they incorporate rhetorical elements, and the extent to which they use digital media. Data were descriptively analyzed using frequency distributions and percentages, and the patterns of difficulties students encountered were mapped to the data sample from baseline. The quantitative data was basis for further exploration, not the final outcome. As a result, the study moved to a qualitative level focusing mainly on direct observations of classroom learning, as well as semi-structured interviews of students themselves.

Observations provided a means of revealing student engagement with writing tasks, the development of ideas, and the functional use of digital media by students. Interviews enabled students to offer reflections on their experiences, challenges and expectations. This qualitative method allowed the researchers to access more contextual and detailed context such as problems in linking logic and affect, difficulty in incorporating visual cues and low confidence in persuasive messaging. The data were then thematically analyzed, in which recurring patterns and themes that arose from students' stories were identified. This was done inductively, so that interpretations were inductively produced based not on a set model but through the evidence from the ground.

The research sample included 30 students from the Digital Business Study Program at the Akademi Bisnis Lombok (AKBIL). The relatively small sample of which the authors studied was chosen to avoid oversimplification in their results, and therefore provided a more in-depth picture of the specific learning situation. In exploratory research, the depth of analysis is prioritized instead of large sample sizes. Several steps were performed to ensure that our source of information had been correct in terms of both reliability and completeness. To this end, a survey questionnaire instrument was analyzed to assess its concordance with our research objectives and reliability by means of Cronbach's alpha. During the qualitative phase, data validity was bolstered through member checking, where participants reviewed the researcher's interpretations.

The results provided a clear insight into students' lived experiences and perceptions during school learning and through this process, this research was able to obtain a complete picture about the difficulties in digital persuasive writing. Quantitative data identified broad trends while qualitative provided rich details with which generalizations can best be explained by describing context, experiences and meanings supporting the numerical findings. This methodological blend facilitated the generation of findings that were comprehensive, reflective and situated.

RESULTS AND DISCUSSION

Results

Creating Logical and Coherent Messages Is Difficult

The data show that 73% of students struggle to organize persuasive messages in a logical and clear manner. Their writing tends to consist of short arguments with little-to-no evidence and explanation. Especially in assessments of digital environmental projects, many students wrote phrases like “keep things clean” without giving context or a reason. These patterns indicate some weakness in terms of students' critical thinking, understanding underlying rhetorical principles, and ability to make strong arguments.

Difficulties in Combining Visual, Emotional, and Logical Elements

Another big problem is students find it difficult to combine emotional appeal, logical reasoning, and visuals with their writing. 82% of the students in the study struggled to integrate visual elements, emotional connection, and evidence-based reasoning to persuade. This was evident in assignments in which students created digital posters on financial literacy. Most gave statistics in graphs but without eye-catching designs or emotional stories. As one student reflected, “I often struggle to combine data with emotive words” (Interview, Student 12). This indicates a broader problem with the development of multimodal literacy skills.

Restricted Use of Digital Interactive Media

Sixty-nine per cent of students also said they are not using interactive digital media to strengthen persuasive messages, the research found. Most students prefer plain text and do not use popular tools like Canva, Instagram, or short videos. For this reason, users accustomed to interactive environments full of visuals find such messages less compelling. Classroom observations show that students mostly share their work on internal school platforms and rarely explore other digital spaces where they could connect with an audience on a more meaningful level.

Absence of Reflective Relationships with Socio-Business Environments

Observations and interviews suggest that students have little experience applying rhetorical ideas to actual social and commercial problems. Despite their display of a fundamental understanding of traditional rhetorical devices like ethos, pathos, and logos, their use is still largely theoretical. Such a gap appears to be widened by the absence of organized opportunities for critical reflection, resulting in more reproductive than analytical learning processes. As a result, students often replicate conceptual knowledge without placing their arguments in pertinent, modern contexts.

Synopsis of the Main Results

The research found that three areas were challenging aspects of students’ digital persuasive writing. For starters, a great number (73%) of students struggle with forming logical and coherent arguments, resulting in fragmented message structures. Second, for 82 percent of people, the logical, emotive, and visual dimensions of successful digital rhetoric are difficult to incorporate. Third, 69% of students have little proficiency in utilizing interactive media to improve audience engagement and message delivery. The challenges are interrelated, and their effects almost always work against one another. When students fail to blend multiple modes, their messages get weaker. In their writing, the argument structure weakens, losing clarity and focus. Not using interactive media also reduces audience engagement, especially on the Internet where it is difficult to maintain attention.

And together, these findings demonstrate that the difficulties do not stop with writing skills—and reach to broader skills such as multimodal literacy, rhetoric and reflective thinking in communication design. The percentage diagram below then demonstrates the distribution of the following challenges among the students.

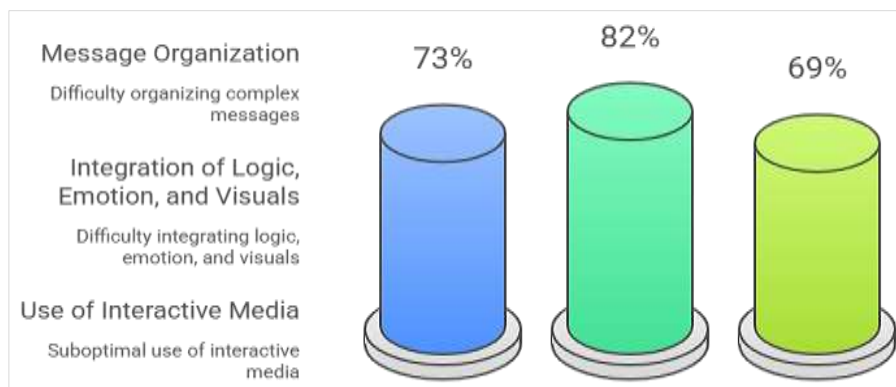


Figure 1. Percentage of student difficulties in digital persuasive writing

A majority of students (73 percent) struggled to construct persuasive messages that are logical and coherent. Integrating logic, emotion, and visualization (82%) was reported as the greatest challenge, demonstrating a lack of multimodal literacy. Moreover, 69 percent of students had not fully used interactive media yet, emphasizing the necessity for lessons on popular digital platforms. These results suggest that students' difficulty has implications for higher-level digital rhetoric as well as technical writing skills. Both charts make clear that the weaknesses of students are in both the complex nature of digital rhetoric and in the technical skills of writing.

This highlights that students must be taught how to produce persuasive writing on project-based, collaborative and interactive digital media, which will generate messages that are educational, emotionally engaging, logical and adaptive to the traits of digital audiences. Observational and interview findings agree with such quantitative findings. Students frequently have difficulty implementing rhetorical concepts to real-world social situations. Although it shows that they have a knowledge of basic rhetorical mechanisms, like ethos, pathos, and logos, they still struggle to make use of its application in digital communication. The continued dominance of lectures in the classroom also curtails experimentation, dialogue and collaborative creation in content.

Consequently, students are often viewed as passive receivers of knowledge that is, a product of education that can no longer provide them with opportunities to critically engage with current social and corporate issues. Equally struggle with how to relate the data to language that is emotional." From Student 12's interview, "I often just present data, without a story." Instead of pairing hard facts with emotion into a compelling, consistent and persuasive message, students often have the opposite effect. This response exemplifies a broader pattern in data, which indicates that the ability to connect pathos and logos is absent. Consequently, the interview results lend support to the quantitative findings that the students' rhetorical effectiveness is fragmented, and that their rhetorical skills did not completely meet the needs of persuasive online speech.

Overall, the results highlight some important issues in the learning process. First, students need systematic frameworks to interweave rationalization, emotional connection, and visual presentation in proportion and content-rich language. Second, students need better skills in handling interactive digital media to create messages that are more active, interactive, and engaging to the general public. Third, it is also necessary to integrate reflective strategies that support the linking of rhetorical principles to the social and the professional world. Such an approach could support writing that is not just academically intelligent but contextually relevant, responding to social and professional needs.

Discussion

The results of this study present the students as the ones who struggle the most to develop skills in digital persuasive writing for argument, rhetoric and interactive media utilization. Most (82%) students indicated that they had problems with the logical deduction, emotional appeal, and visual description in their persuasive communication style, indicating that they had not integrated the basic elements of persuasive communication (logos, pathos, and ethos) with the digital.

This indicates that, though the rhetoric may feel good about making a statement, students do an awful job of mastering rhetoric which only extends the rhetorical theory to a less concrete theoretical context. As emphasized in Regan et al. (2017), successful digital persuasion requires the application of analytical competence, an understanding of an audience, and multimodal communication, none of which is currently adequately developed in the learner there. This is evidence of the larger issue with higher education writing instruction, wherein students are taught to undervalue rhetorical qualities and focus more on basic writing mechanics. The absence of focus on rhetorical strategies hinders students' ability to form logical arguments according to Alhawamdeh and KhairEddeen (2022). This leads to students writing descriptive rather than persuasive texts, devoid of depth, coherence and strategy. Regan et al. (2017) strengthen this finding, which suggests that insufficient instructional support reduces students' ability to effectively organize and elaborate arguments.

Thus, digital persuasive writing is only developed if teachers explicitly teach rhetorical skills such as how to analyze the characteristics of their audiences, evaluate communicative context, and use

appropriate persuasive techniques at every step of process. Additionally, the observation that 73% of respondents had difficulty organizing clear messages indicates shortages in critical and reflective thinking necessary for advanced literacy. Students, therefore, are not as capable of making logically organized judgments at a critical level: the skills are not yet acquired enough to facilitate analysis, synthesis and evaluations of the information provided.

In this context, a curriculum design needs-based approach is needed. Hutchinson and Waters (1987) point out that effective learning needs to be based on learners actual needs and contextual realities so that it is related and usable. Without it any of the current efforts to integrate teaching with the competencies needed to become active participants in the world of communication go nowhere. In addition, 69% of students reported a low usage of interactive digital media, indicating a deficiency in multimodal digital literacy.

Within today's digital environment, persuasive communication is inherently multimodal, engaging not only the skills of the writer of the text but the skill of infusing that text with all necessary visuals and interactive features. Wambsganß et al. (2022) show that, in practice, effective digital communication goes through how the skills built around technology can serve rhetorical purposes. In much the same way, they remind us, visual stimuli are instruments on which meaning must be constructed, informing and engaging an audience, not just decorative accoutrements. The inability to utilize interactive media means that students do not have the knowledge to use digital platforms to amplify their message, leading to a lack of significant impact on the target audience and dissemination of their messages. There are also barriers to reflective practice identified by this research.

Without structured methods for this kind of reflection, students find it difficult to link theoretical knowledge with practical socio-business experience, which results in learning that tends toward reproduction, not analysis. To create meaningful learning environments, reflective practice is critical, giving students the opportunity to critically examine their assumptions, evaluate their performance and refine their strategies (Dewey, 1933; Mezirow, 1997).

In addition, recent research emphasizes that reflective engagement fosters self-awareness, and adaptive learning in digital environments is possible (Chaika, 2023; Liu & Ling, 2025). Lack of reflection not only narrows the student's comprehension but also prevents the generation of contextually appropriate and socially reflective persuasive messages. In order to tackle these intersecting challenges this study puts forward an integrative learning framework that integrates project-based learning, digital literacy, persuasive rhetoric, and collaborative practice, within a socio-business reflective framework.

This framework facilitates active learning experiences that are similar to those used in authentic, real-life communication situations so that students not only learn to communicate but also develop useful skills beyond paper. Using project-based work, which allows students to collaborate on the problem-solving process, apply rhetorical strategies to the situation, and apply multimodal tools to their communication skills, students engage in problem-solving. This approach can be supported by social learning theory (Bandura, 2001) which explains that when learning occurs through observation, interaction, and reflection in meaningful context and when people are able to engage in this type of interaction, a better learning can be realized.

The addition through collaborative and reflective elements also contributes to greater learning and critical thinking. It was through co-teaching and reflection of the practice that students were able to gain insight into persuasive communication which should take place within digital environments. This process also supports, among other things, the development of metacognitive skills, which give students the tools to monitor and regulate their own learning. They conclude to note that digital persuasive writing competencies are rooted in the use of critical thinking, rhetorical awareness, multimodal literacy and reflective practice.

This model is a holistic and adaptable mechanism to address both of these needs, with possible contributions to improving students' skills in creating persuasive messages that are coherent, engaging, and contextually relevant. Equipping the students with these competencies equips them to rise to task as the contemporary digital communication context demands, to respond dynamically to the changing socio-technological reality.

CONCLUSION

The results of this study suggest that the teaching of digital persuasive writing in higher education is only effective when it is holistic and integrated. Successful learning styles should consider digital media, context consciousness, and rhetorical elements as constituent parts of the writing process. In order to develop a persuasive text that is contextually appropriate and current in communication needs, the use of logos, ethos, and pathos must be embedded within digital media and reflect critically on socio-business issues.

This finding indicates an interplay of cognitive, creative, and critical aspects for successful instruction. This methodology can help students to develop their rhetorical skills, to adjust their means of communicating, and to better cope with the changing digital environment. As such digital persuasive writing deserves to be seen as a thoughtful and contingent act which is at least as much part of a technical competence as a logical one.

This study contributes an integrative view that enriches the instruction of digital literacy and reflective writing and develops students' academic writing alongside their communication skills that apply academically, socially and professionally in relation to Industry 4.0. These results support the construction of a collaborative project-based curriculum based on digital principles. You can take student engagement and communication skills further by use of visual production tools such as Canva, brainstorming and ideation platforms such as Padlet and social media platforms for spreading the message from one point to another even more.

Through integration of artificial intelligence technology such as ChatGPT, students can generate, develop arguments, increase the overall quality of their writing, help in the generation of a better argumentation and help students to adapt to changing information technology.

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