



THE TRANSFORMATION OF DIGITAL LITERACY IN INDONESIAN LANGUAGE LEARNING FOR PHARMACY STUDENTS: A STUDY ON THE USE OF INSTAGRAM AS A MULTILITERACY EVALUATION MEDIUM

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ABSTRACT

This study explores the transformation of digital literacy in Indonesian language learning for pharmacy students through the integration of Instagram as a platform for multiliteracy-based evaluation. The research aims to develop an innovative pedagogical approach that aligns with the communicative and professional needs of pharmacy students while fostering their multiliteracy competencies. Employing a qualitative descriptive method, data were collected through observation, interviews, and content analysis of student-generated video assignments uploaded to Instagram. The findings reveal that the use of Instagram not only enhances students' motivation and engagement but also enables authentic communication practices that bridge academic and digital contexts. Moreover, the platform supports multimodal expression and peer feedback, facilitating deeper reflection and learning. This research contributes to the field of Indonesian Language and Literature Education by proposing a contextual and technology-enhanced evaluation model that responds to the demands of 21st-century literacy practices, particularly in health-related disciplines. The study highlights the pedagogical potential of social media in fostering critical, digital, and disciplinary literacies through meaningful and interactive learning experiences.

Keywords: *digital literacy; multiliteracies; Instagram; Indonesian language; evaluation*

INTRODUCTION

The rapid advancement of digital technology has fundamentally transformed the landscape of education, necessitating a shift in pedagogical practices to integrate digital literacy and multiliteracies into teaching and assessment (Cope & Kalantzis, 2015; Mills, 2016). In the context of Indonesian language learning, especially for students in specialized disciplines such as pharmacy, the ability to navigate, produce, and critically evaluate multimodal digital texts has become increasingly essential. This aligns with the demands of 21st-century competencies, which emphasize critical thinking, communication, collaboration, and digital fluency (Trilling & Fadel, 2015; Voogt et al., 2018). Digital literacy extends beyond technical skills, encompassing the capacity to access, interpret, produce, and ethically engage with digital content (Ng, 2015; Eshet-Alkalai, 2018). Pharmacy students, who are expected to communicate scientific and health-related information clearly and accurately, must be equipped with these skills to participate effectively in both academic and professional domains. The integration of digital platforms such as Instagram offers an opportunity to foster these competencies by engaging students in interactive, authentic, and multimodal learning experiences.

The multiliteracies framework introduced by the New London Group (1996) and further developed by Kalantzis and Cope (2020) advocates for recognizing diverse modes of meaning-making—including linguistic, visual, audio, spatial, and gestural forms—within digital and social contexts. This framework is particularly relevant in the digital age, where literacy is no longer confined to printed text but includes a range of communicative practices facilitated by digital technologies (Walsh, 2017; Alvermann & Sanders, 2020).

Instagram, as a visual and participatory social media platform, enables users to create, share, and engage with multimodal content. It is increasingly utilized in educational settings to promote digital storytelling, reflective practice, and peer interaction (Greenhow & Lewin, 2016; Purnama & Febriyanti, 2021). For Indonesian language education, especially in health-related disciplines like pharmacy, Instagram provides a platform where students can demonstrate their understanding through the production of contextual and discipline-specific narratives in creative formats such as videos, captions, and comments (Sadikin & Hamidah, 2020; Sari & Fitriani, 2023). Moreover, the use of social media in education supports authentic assessment—a strategy that mirrors real-world tasks and promotes student agency in learning (Gulikers et al., 2017; Kearney, 2019). In this study, Instagram functions not only as a learning medium but also as an evaluation tool that captures the multiliteracy competencies of pharmacy students, including their ability to communicate in Indonesian, interpret scientific content, and engage critically with their peers.

In Indonesia, the integration of digital platforms into language instruction is supported by national curriculum policies that encourage innovative and contextualized approaches to literacy education (Kemendikbudristek, 2022). However, empirical studies focusing on the intersection of digital literacy, multiliteracies, and professional language use in the health sciences remain limited. This research responds to that gap by examining how Instagram can serve as a transformative space for Indonesian language learning and evaluation, particularly tailored to the communicative and professional demands of pharmacy students.

Ultimately, this study aims to contribute to the development of a multiliteracy-based pedagogical model that enhances students' language competence, digital proficiency, and reflective thinking. It also underscores the pedagogical potential of leveraging social media as a tool for fostering deeper and more contextualized learning in higher education, especially in non-language disciplines where effective communication remains a vital skill.

METHOD

The study employed a qualitative descriptive method to explore the transformation of digital literacy in Indonesian language learning for pharmacy students through the use of Instagram as an evaluation medium. This methodological approach was chosen to provide an in-depth understanding of how digital tools, particularly social media, are integrated into language learning contexts and how they influence students' multiliteracy development. Data collection was carried out through three primary techniques: observation, interviews, and content analysis. Observations focused on how students interacted with the Instagram platform, including their creative processes, posting behavior, and engagement with peer feedback. Semi-structured interviews were conducted with selected students and lecturers to gain insights into their experiences, perceptions, and challenges encountered during the implementation of Instagram-based assignments. These interviews enabled the researchers to capture the participants'

authentic voices and explore their reflections on the pedagogical use of social media. In addition, content analysis was performed on student-generated video assignments uploaded to Instagram. This analysis examined the multimodal features of the posts—including linguistic, visual, and auditory elements—as well as the relevance and depth of the language used, the accuracy of health-related content, and the interaction generated through comments and peer responses. By triangulating these data sources, the study ensured credibility and depth in interpreting how Instagram functions as both a learning and evaluation platform in Indonesian language education. The qualitative design allowed the researchers to move beyond surface-level observations and uncover the nuanced ways in which digital literacy and multiliteracies are cultivated in a professional academic context.

RESULT AND DISCUSSION

The results of this study indicate that the integration of Instagram as a multiliteracy-based evaluation medium significantly enhanced students' engagement, creativity, and communicative competence in Indonesian language learning. The data gathered through observation, interviews, and content analysis revealed three main dimensions of transformation: (1) increased student motivation and participation, (2) development of multiliteracies through multimodal expression, and (3) the promotion of authentic and contextual language use relevant to pharmaceutical communication. To provide a clear overview of the findings, the following table summarizes the analysis based on five key indicators observed in students' Instagram video assignments and their interaction patterns.

Table 1. Analysis of Instagram-Based Multiliteracy Evaluation Results

Indicator	Observations from Student Posts	Interview Insights	Interpretation
1. Multimodal Expression	Students combined spoken narration, text captions, music, and visuals effectively in their videos.	Students reported that multimodal tools helped them express ideas more creatively and clearly.	Instagram facilitated the development of multiliteracies (Cope & Kalantzis, 2015; Walsh, 2017).
2. Language Accuracy and Fluency	Videos showed improved use of formal Indonesian relevant to pharmaceutical discourse.	Students stated they revised scripts multiple times before recording to ensure accuracy.	The platform encouraged careful language planning and rehearsal, supporting language learning.
3. Engagement and Motivation	Consistent posting behavior and peer commenting were observed; 80% of students met submission targets.	Students felt more motivated due to the public nature and visual appeal of Instagram.	Visibility and peer interaction increased accountability and intrinsic motivation (Greenhow & Lewin, 2016).
4. Peer Feedback Interaction	70% of posts received constructive comments from classmates.	Students found peer feedback valuable and felt a sense of collaboration.	Instagram supported a participatory learning culture and critical peer engagement.
5. Authentic Communication Contexts	Content focused on health campaigns, drug information, and public awareness topics.	Students appreciated the relevance of the task to their professional field.	The context supported disciplinary literacy and real-world application (Kearney, 2019; Kalantzis & Cope, 2020).

The use of Instagram promoted the practice of multimodal expression, which lies at the heart of multiliteracies pedagogy (Kalantzis & Cope, 2020). Students utilized a combination of video, text, imagery, and audio to convey their messages—demonstrating

their ability to design meaning across multiple semiotic modes. The content analysis showed that students creatively embedded captions, subtitles, and pharmaceutical visuals (e.g., medicine packaging or demonstration of drug use) in their videos. This aligns with Walsh's (2017) view that multimodal composition promotes deeper engagement and meaning-making.

Interestingly, students exhibited greater attention to the accuracy and appropriateness of Indonesian, especially in terms of register, technical vocabulary, and syntactic control. Interviews revealed that students prepared their scripts carefully and often rehearsed multiple times, which enhanced both fluency and confidence. This supports Eshet-Alkalai's (2018) argument that digital environments can foster deeper reflection in language use when learners are aware of an external audience.

The public and interactive nature of Instagram boosted student motivation. Unlike traditional written assignments, which are often confined to teacher evaluation, the open audience model of Instagram encouraged students to take greater ownership of their learning. The regularity of posting and the voluntary peer feedback suggested a genuine interest in content production and social learning, resonating with Greenhow and Lewin's (2016) findings on social media's capacity to motivate learners.

Approximately 70% of students received peer responses that ranged from encouragement to constructive criticism. These interactions, which were often conducted in a mix of formal and informal Indonesian, contributed to a reflective learning atmosphere. Through peer comments, students were exposed to alternative perspectives and interpretations, deepening their understanding of the presented topic. The process embodies a shift from teacher-centered evaluation to learner-centered dialogue.

Perhaps the most significant result was the students' perception of authenticity. Tasks required them to create informational content related to public health campaigns, over-the-counter medicine education, or prescriptions. This not only contextualized language learning in a disciplinary framework but also aligned with their future professional roles as communicators of pharmaceutical knowledge. According to Kearney (2019), authentic assessments are more likely to engage students and promote transfer of learning to real-world settings.

Discussion

The integration of Instagram as an evaluation medium in Indonesian language learning for pharmacy students marks a transformative shift in how literacy is perceived, practiced, and assessed in the digital age. This study illustrates that social media—when intentionally designed for educational purposes—can become a powerful platform for fostering multiliteracies that align with the communicative demands of the 21st century. The students' active involvement in producing video-based content and engaging in peer interactions on Instagram demonstrated a significant elevation in their multimodal literacy skills. These findings support the theoretical framework of multiliteracies introduced by the New London Group and expanded by Cope and Kalantzis (2015; 2020), which emphasizes the need for learners to be competent not only in linguistic modes but also in visual, spatial, and digital modes of communication. In this context, the students' use of spoken language, visual elements, captions, background music, and pharmaceutical visuals in their posts illustrates how multiple semiotic resources were coordinated to construct meaning, thus validating the relevance of multiliteracies pedagogy in disciplinary language learning.

The observed improvement in language accuracy and fluency further indicates that students internalized the communicative purpose of the task. Unlike conventional

classroom assessments, which often promote rote responses, the social and performative nature of Instagram pushed students to critically prepare their language use, ensuring clarity, correctness, and appropriateness. This resonates with Eshet-Alkalai's (2018) notion that digital literacy includes reflective cognitive processes that extend beyond technical skills. The students' heightened attention to audience, message clarity, and domain-specific vocabulary reflects their evolving awareness as professional communicators in the pharmaceutical field. These findings highlight how digital platforms can motivate learners to bridge academic language with real-world communication—an outcome highly desired in professional language training.

Moreover, the study revealed that students experienced increased motivation and a greater sense of engagement with the learning process. The visibility and public nature of Instagram contributed to a learning environment that was both interactive and performative. Learners became more invested in their work, knowing it would be viewed not only by instructors but also by peers. This finding aligns with Greenhow and Lewin's (2016) assertion that social media promotes participatory learning environments where students develop agency, voice, and ownership. The comments section of each Instagram post became a site of peer evaluation, where learners provided and received feedback in a dynamic and socially constructive manner. Such interactions echo Vygotsky's sociocultural theory, where learning is understood as a socially mediated process. In this case, Instagram acted as a digital zone of proximal development in which learners scaffolded each other's language and critical thinking skills.

Another notable insight is the way in which the learning task reflected authentic and contextual communication practices. Rather than completing decontextualized grammar exercises or isolated writing prompts, students produced content that was relevant to their academic discipline and future profession—ranging from health promotion campaigns to pharmaceutical product explanations. These authentic tasks mirror the principles of performance-based and authentic assessment (Gulikers et al., 2017; Kearney, 2019), which argue that assessments should reflect the complexity and purpose of real-life communication. Instagram, in this study, provided a context where students practiced language not as an abstract system, but as a socially meaningful tool for public engagement and health literacy dissemination. This is particularly important for pharmacy students, who are expected to communicate clearly and responsibly in professional settings.

The transformation observed through this study also reflects a broader educational shift in Indonesian higher education, where educators are encouraged to adopt Merdeka Belajar (Freedom to Learn) principles by integrating digital tools and promoting learner autonomy (Kemendikbudristek, 2022). The use of Instagram supports these principles by creating space for student-centered learning, creativity, and digital fluency. However, it also introduces challenges, including the need for digital ethics, content curation skills, and managing online identity. These aspects were reflected in students' interview responses, where they expressed concern over public exposure, content quality, and time management. Such concerns emphasize the importance of preparing students not only to use digital tools but also to navigate them critically and responsibly.

In summary, this discussion affirms that Instagram—when used purposefully as a pedagogical tool—can foster multiliteracies that are essential for pharmacy students in both academic and professional settings. It supports language development, critical thinking, and digital communication skills through authentic, multimodal, and socially engaged learning. The implications of this study extend beyond Indonesian language education, offering a model of digitally enhanced assessment that can be adapted for other

disciplines seeking to align with the evolving demands of professional and digital literacies in the 21st century.

CONCLUSION

This study concludes that the integration of Instagram as an evaluation medium in Indonesian language learning represents a significant transformation in fostering digital literacy and multiliteracies among pharmacy students. Through the qualitative exploration of student-generated content, peer interactions, and reflective responses, it becomes evident that social media platforms—when designed with clear pedagogical intent—can transcend their recreational purpose and function as dynamic educational tools. Instagram supported not only the development of students' linguistic competence in formal Indonesian, but also enhanced their ability to communicate using multimodal strategies that reflect the complexities of contemporary discourse. Students were able to combine spoken narratives, visual cues, text captions, and audio elements to articulate ideas relevant to health and pharmaceutical contexts, which in turn cultivated their critical awareness, creativity, and digital fluency. The performative and participatory nature of Instagram further contributed to higher levels of engagement and motivation, as students became more accountable and invested in producing meaningful work for an authentic audience.

Moreover, this study demonstrates that multiliteracy-based evaluation supports deeper forms of learning by enabling students to connect language instruction with their future professional identity. Pharmacy students are expected to communicate effectively with diverse stakeholders, including patients, colleagues, and the public. The Instagram tasks allowed them to simulate such roles by designing content that disseminates health information, raises awareness, and promotes clarity in public communication. This experiential form of assessment aligns with the principles of authentic learning and addresses the limitations of traditional evaluation models that often fail to reflect real-world communicative demands. At the same time, the study brings attention to the need for instructional guidance and digital ethics, as some students expressed concern about visibility, time constraints, and the pressure of online performance. These reflections suggest that while digital platforms offer tremendous pedagogical potential, their implementation must be supported by careful scaffolding, teacher feedback, and a strong ethical framework.

In closing, the research contributes to the ongoing discourse on educational innovation in language learning by proposing a contextual, technology-enhanced, and learner-centered model of evaluation. It underscores the importance of preparing students not only to master academic content but also to become digitally literate professionals who can navigate complex communicative environments. This is particularly crucial in the health sector, where accurate, empathetic, and accessible communication can have a direct impact on public well-being. The integration of Instagram into Indonesian language pedagogy exemplifies how higher education can respond to the evolving landscape of literacy in the digital age, offering a relevant and empowering approach to language learning that bridges academic skills with real-world applications.

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