

Tpack-Based Multimodal Literacy In English Narrative For Um Tapsel Information Technology Students

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Abstract

Multimodal literacy based on TPACK (Technological Pedagogical Content Knowledge) is an educational approach that integrates technology with pedagogical and content knowledge to develop multimodal literacy in students. Multimodal literacy refers to the ability to understand, analyse, and produce texts that combine various modes of communication such as written text, images, sound, video, and interactivity. Focus of this research is to find out TPACK-based multimodal literacy in improving English narratives for IT students of UM-Tapsel. English narrative is a form of writing or conversation that tells an event or series of events in English. The main purpose of narration is to tell a story or explain an event in detail, giving a clear picture of what happened, who was involved, when and where the event occurred, as well as how and why the event occurred. In addition, the purpose of this study is to find out the perspectives and levels of mutilmodal literacy of students in English narratives. The method used in this research is qualitative in the form of a case study. The sample size is 40 students of Faculty of Science and Technology, Information Technology study programme. Questionnaires were used to collect data in this study.

Keywords: *Multimodal Literacy, TPACK, Narrative Text*

INTRODUCTION

Language is the most effective tool to convey an idea, information, purpose and goal to others. Moro at.al (2019) in (Bao, 2017) stated that language is the most important way for communicating, especially for education field. Language is something that is most needed in human lives because language is a means of human's communication, that contains data collected from various internal and external sources, analyzed it, and used the results to drive business strategies.

In this time of transformation 5.0, communication is enormously impacted by mechanical progresses. mechanical improvements and changes within the way of communicating in each circumstance. Innovation has advanced over there a long time in different shapes. We all require the advancement of information to form life simpler, productive, and successful. Innovation has entered into all regions of human life, such as the way individual learn, mingle, works and plays. We right now live in a period where quick innovative breakthroughs have changed the way people examined, type in and think collaboratively (Asep, 2018). The advancement of data and communicating innovation brings individuals to a unused stage, where they can take advantage of the latest innovation usage that can offer assistance encourage way of life.

Innovation can be utilized as an investigation instrument to pick up modern experiences and information in completing work. Agreeing to Salsabila et al (2021) in (Sari et al., 2022), the utilize of data and communicate of innovation in instruction, in general has called as e-learning, is considered to make strides the quality of learning. Students greatly advantage from the simple get to to the web with exceptionally different media such as learning within the frame of recordings, so that it can make it less demanding for understudies to get it the fabric. The advantage of learning media is to facilitate the interaction prepare between instructors and understudies, in this case making a difference understudies learn ideally.

The integration of verbal and non-verbal elements to convey messages is known as multimodality. It refers to a form of communication that involves the use of various modes such as textual, auditory, linguistic, spatial, and visual—to construct and convey meaning. According to Ekşi and Yakışık (2015) as well as Plants and Unsworth (2017), many contemporary texts incorporate multiple modes simultaneously, including sound, imagery, gestures, spatial organization, and language, in order to enhance meaning-making. The effectiveness of multimodality in different communicative contexts depends on how these modes are combined to reinforce the understanding of a concept by the audience. Cook and Kirchoff (2017) emphasize that to comprehend communicative situations effectively including engaging interactions with an audience students must develop the ability to analyze and apply diverse communicative and expressive modes.

Multimodal proficiency alludes to different approaches to comprehend information such as dialect, development, and pictures are by utilized of different modalities such as coordinates aural, visual, gestural, spatial, and phonetic. As expressed by Plants and Unsworth (2017), multimodal education may be a social semiotic terms that alludes to the study of dialect that consolidates more than one modes of meaning. The utilized of multimodal proficiency in learning points to supply openings for students to think inventively in doing different exercises concurring to their capacities. Multimodal proficiency learning methodologies make more openings accessible to completely include understudies within the classroom, at that point burrow and investigate more profoundly the potential or capacities of understudies both in terms of cognitive, emotional, and psychomotor (Drajati, n.d.).

In this research, the teacher is display to assist as a facilitator for understudies in investigating their information through multimodal proficiency. The accentuation in multimodal proficiency learning isn't as it were restricted to the capacity to persued and type in direct writings, but there are moreover more requests on understudies. As stated by Ryu and Boggs (2016) in (Mills & Unsworth, 2017), the purpose in learning application multimodal literacy as multimedia text and multimodal texts in conveying text, instead traditionally printed text. Multimedia and multimodal texts was created by using visualization, audio, and technological elements to improve 21st century skills. Today, pupil need to be able to comprehend a variety of texts related to different forms of multimodal knowledge, such as writing, video, audio, visual images, and elements of digital content.

By using technology, multimodal literacy is critical to improve students' ability in communicate include text or literacy where the primary of presentation is not only used language (Brashear et al., 1995) in (Nurmahanani, 2023); texts are formed by “multimodal ensembles”, that is, “designed complexes of multiple modes”(Sodiq et al., 2023). Multimodality stems from social semiotic theory which poses the question of how semiotic modes used by people as resources for meaning-making in various social and cultural practices (Kress, 2015) in (Shariman et al., 2014). From this perspective, meaning-making is pluralistic rather than determined and a Meaning makers are agents who choose and replaced the semiotic resources available as signs, It is defined as "the union of a signifier - an observable form such as a particular facial expression or a particular color - and a signified - a meaning such as disapproval or danger." Determining the semiotic potential of communication channels and challenging the interpretations that each one offers are important issues in social semiotics (Kress, 2015) in (Drajati, n.d.).

The importance of using different methods of communication, known as multimodal literacy principles, in an academic setting, especially when it comes to English language learning, is tremendous. Multimodal literacy provides a powerful strategy to improve students' understanding, engaging and communicating skills by incorporating different ways of conveying information, such as visual, audio and graphic, into the English learning process.

Technology in education is growing rapidly. Thus, the use of technology must be mastered by teachers, especially English teachers. But in reality, technology which is very important in language learning does not continue in the classroom, only applied when there is a workshop. The use of technology in the classroom is not used by teachers due to limited time and facilities. TPACK or the so-called Technology Pedagogic Content Knowledge is considered a prerequisite for adopting technology for teaching specific subjects (Yeh & Tseng, 2020) and (Drajati, n.d.). Technology Pedagogic Content Knowledge (TPACK) and Multimodal literacy are ways to introduce educators and students to different ways and use them to develop English language skills.

By using TPACK-based multimodal literacy, it is expected to increase students' experience with English narratives (Hines, 2014). Incorporating multimodal literacy into the English learning process especially in understanding English narrative texts can be easily achieved through the integration of various multimedia and technology resources coupled with the TPACK knowledge possessed by educators. For example, instructors can utilise moving animation videos featuring effective English texts, infographics to illustrate difficult vocabulary, and digital comics with audio. Similarly, students might utilize digital tools and software to build visually appealing presentations or interactive materials to explore and share information (Binder & Kotsopoulos, 2014). Students may actively connect with a variety of communication channels thanks to the ease of use of multimedia materials and user-friendly programs, which promotes a better comprehension of the subject matter.

Despite notable advancements in literacy research within the field of education, the exploration of multimodal literacy's potential in language learning—especially in English language education—remains underdeveloped. Several prior studies have addressed this area from varying perspectives. For instance, Farías and Véliz (2019) examined the use of multimodal writing in Chilean English education through the experiences of both in-service and pre-service teachers. Another study by Tenku Putri (2013) investigated the multimodal literacy practices among Malaysian youths within digital contexts. Similarly, Putri et al. (2014), referencing work by Lyndy Tan, conducted a cluster analysis of Australian teachers' TPACK in relation to teaching multimodal literacies through digital tools and augmented reality. Additionally, Dea (2022) explored students' multimodal literacy in the context of literature learning in English Language Teaching (ELT) at Sriwijaya University's English Education Program.

Much of the existing research has predominantly emphasized traditional literacy methods such as reading and writing, often overlooking the opportunities presented by multimodal instructional strategies. Given the evolving nature of academic contexts and the rapid pace of technological innovation, it becomes essential to explore the unexplored possibilities of multimodal literacy and examine its influence on students' academic outcomes and their engagement with English narrative texts.

Narratives have the capacity to profoundly influence cognitive, emotional, and behavioral domains through various mechanisms. These include narrative transportation (Green & Brock, 2000), immersive engagement (Lu, Thompson, et al., 2012), the temporary suspension of disbelief (Green, Garst, & Brock, 2004), the evocation of vivid personal experiences (Epstein, 1998), and the cultivation of emotional attachment to characters (Oatley, 2002, as cited in Purba, 2018). Increasingly, professionals in health communication are adopting narrative forms as persuasive tools to enhance message effectiveness. (Graesser et al., 1994) in (Mckenzie et al., 2009).

Although different disciplines emphasise different aspects, there are some similarities. Narratives show temporal aspects of speaking, writing, and thinking that usually have a beginning, middle, and end. Events are organised in such a way that the resulting narrative has consequences for both the narrator and the listener/reader. This implies moving from one state to another, and in doing so, making a point. Furthermore, storytelling is an occasion where the

narrator and the listener endeavour to communicate and understand their social world. As Riessman and Quinney (2005: 394) in (Mckenzie et al., 2009) put it, ‘sequence and consequence: events are selected, organised, connected, and evaluated as meaningful to a particular audience.

RESEARCH METHODS

The research location is the place where the research is conducted, this research was conducted at Universitas Muhammadiyah Tapanuli Selatan with the research subjects being students of the Information Technology study programme. For the first year (semester 1) will complete the skill of understanding English narrative text, the following year (semester IV) will complete the skill of reading English text using multimodal literacy and TPACK-based textbooks.

This study employed a qualitative case study approach to examine and analyze the extent of multimodal literacy among students enrolled in the English Skill course within the English Education Study Program at Universitas Muhammadiyah Tapanuli Selatan. As noted by Baxter and Jack (2008) in Mackiewicz (2018), a qualitative case study is a research methodology that utilizes multiple data sources, enabling the exploration of a phenomenon within its natural context. Starman (2013) explains that case studies illustrate how an issue evolves over time through distinct, interconnected events occurring in a particular place and period. The goal of qualitative research, according to Mackiewicz (2018), is to explore and understand the meanings different individuals or groups attach to a social or human issue. Qualitative research offers valuable insights into the thoughts and emotions of participants, allowing researchers to identify patterns in behaviors of individuals involved in specific activities.

Qualitative research methodologies are valuable in helping researchers gain an understanding of how behaviors are enacted and the underlying reasons for these behaviors (Sutton & Austin, 2015). According to Heale and Twycross (2018), a case study is an in-depth analysis of an individual, a group, or a unit with the goal of making generalizations across multiple units (Asep, 2018). A case study is further described as a comprehensive and systematic investigation of a person, group, community, or other entity, where the researcher closely examines data related to various factors.

RESULT AND DISCUSSION

This study aims to understand the extent to which Information Technology students at Universitas Muhammadiyah Tapanuli Selatan (UM Tapsel) can develop narrative skills in English through a TPACK-based multimodal approach. Data were collected through observations, interviews, and document analyses from 40 participating respondents. The following are the main findings of this study presented in table 1 form:

Table 1. The Result of The Research

No	Aspects	Findings
1	Students' Understanding of English Narrative	A total of 75% of students were able to compose a more structured narrative with a clear flow. They also showed improvement in grammar and were able to integrate multimodal elements such as images, audio and video to enrich their stories.
2	Narrative Skill	A total of 68% of students became more creative in writing narratives after applying the TPACK based approach. They were more confident in choosing

		vocabulary and maintaining cohesion in their writing.
3	Multimodal Literacy in Learning	82% of students felt that the use of various media such as text, images and videos helped them understand the concept of narrative better and inspired them to write more interesting stories.
4	The Obstacle	Some students faced obstacles in integrating technology with their narratives. The main challenges include limited access to devices and lack of technical skills in using digital tools.
5	The Implication for English Study	TPACK based multimodal approach was shown to have a positive impact on students' understanding and writing skills. Therefore, this method is recommended to be implemented more widely in the curriculum, and supported by additional training in technology utilisation.

Data Analysis

From the data collected, some key findings can be summarised: Improved Narrative Comprehension. A total of 30 out of 40 students (75%) showed better understanding in composing narratives after applying the TPACK-based multimodal approach. The main factor driving this improvement was the use of additional media such as images, videos, and audio that helped students understand the structure and flow of the narrative more clearly.

Narrative Production Skills

A total of 27 students (68%) managed to produce more creative and structured narratives. Analysis of students' writing showed that they used more diverse vocabulary and more complex sentence structures than before the application of this method.

Effectiveness of Multimodal Literacy

A total of 33 students (82%) felt that multimodal literacy helped them understand the concept of narrative better. Respondents who experienced significant improvement tended to be more active in using various digital tools to construct and deliver their stories.

Challenges in Implementation. A total of 15 students experienced limited access to the digital tools needed for multimodal integration. About 10 students reported difficulties in operating the software used in creating digital narratives.

Recommendations for Learning Improvement

Based on the findings, additional training is recommended so that students are more familiar with using technology in writing narratives. Providing wider access to digital devices and multimedia resources is necessary to improve the effectiveness of multimodal-based learning.

Overall, this study shows that a TPACK-based approach can improve students' narrative skills in English, while providing a more engaging and dynamic learning experience. The integration of technology in language learning has the potential to be an innovative solution to improve students' literacy in today's digital era.

CONCLUSION

The findings of this study indicate that the TPACK-based multimodal approach significantly contributes to the enhancement of narrative skills among Information Technology students at UM Tapsel. By utilising various multimodal elements such as text, images, audio, and video, students can understand and compose narratives in English better. This approach

helped them not only in writing structure but also in vocabulary selection, cohesion, and creativity in storytelling.

The majority of students experienced improvement in their writing skills after applying this method. They are more confident in composing narratives and are able to integrate various media to enrich their stories. However, there are still challenges such as limited access to technological devices and lack of skills in operating digital tools, which need to be addressed in the implementation of this method.

The implication of this study confirms that the use of technology in language learning can be an effective strategy to improve students' multimodal literacy. Therefore, institutional support is needed in the form of providing adequate technology facilities as well as additional training for students so that they can be more proficient in utilising digital platforms as learning tools.

As a follow-up step, further research can be conducted to explore the effectiveness of this approach in other language skills, such as speaking and listening. In addition, a more systematic curriculum development in adopting the TPACK-based approach should also be considered to optimise its benefits.

Overall, this study confirms that the TPACK-based multimodal approach not only helps students in improving their narrative writing skills, but also creates a more dynamic, innovative and relevant learning experience with current technological developments. Therefore, this approach is recommended to be implemented more widely in English language learning, especially in narrative teaching, so that students can be better prepared to face challenges in the digital era.

REFERENCES

- Asep, K. (2018). *Buku Metodologi-min.pdf* (p. 401). <http://repository.syekh Nurjati.ac.id/3334/>
- Bao, X. (2017). Application of Multimodality to Teaching Reading. *English Language and Literature Studies*, 7(3), 78. <https://doi.org/10.5539/ells.v7n3p78>
- Binder, M., & Kotsopoulos, S. (2014). *Multimodal Literacy Narratives : Weaving the Threads of Young Journal of Research in Childhood Multimodal Literacy Narratives : Weaving the Threads of Young Children ' s Identity Through the Arts. October 2011.* <https://doi.org/10.1080/02568543.2011.606762>
- Brashear, R. J., Hall, H. J., Schur, J. D., & Pan, A. A. (1995). Detection of antibodies to *Trypanosoma cruzi* among blood donors in the southwestern and western United States. II. Evaluation of a supplemental enzyme immunoassay and radioimmunoassay for confirmation of seroreactivity. *Transfusion*, 35(3), 219–225. <https://doi.org/10.1046/j.1537-2995.1995.35395184278.x>
- Cook, M. P., & Kirchoff, J. S. J. (2017). Teaching Multimodal Literacy Through Reading and Writing Graphic Novels. *Language and Literacy*, 19(4), 76. <https://doi.org/10.20360/g2p38r>
- Drajati, N. A. (n.d.). *TPACK-MULTIMODAL LITERACY IN INDONESIA CLASSROOMS :*
- Ekşi, G., & Yakışık, B. Y. (2015). An Investigation of Prospective English Language Teachers' Multimodal Literacy. *Procedia - Social and Behavioral Sciences*, 199(August 2015), 464–471. <https://doi.org/10.1016/j.sbspro.2015.07.533>
- Graesser, A. C., Singer, M., & Trabasso, T. (1994). Constructing inferences during narrative text comprehension. *Psychological Review*, 101(3), 371–395. <https://doi.org/10.1037/0033-295X.101.3.371>
- Hines, S. (2014). Multimodal Literacy and Why It Matters: A Brief Overview. *Against the Grain*, 26(4). <https://doi.org/10.7771/2380-176x.6902>

- Mackiewicz, J. (2018). A Mixed-Method Approach. In *Writing Center Talk over Time*.
<https://doi.org/10.4324/9780429469237-3>
- Mckenzie, K., Scott, And Campbell, D. A., McClure, M., & Roderick J. (2009). *The use of narrative text for injury surveillance research : a systematic review*. *Accident Analysis & Prevention*. <http://eprints.qut.edu.au/>
- Mills, K. A., & Unsworth, L. (2017). Multimodal Literacy. *Oxford Research Encyclopedia of Education*. <https://doi.org/10.1093/acrefore/9780190264093.013.232>
- Nurmahanani, I. (2023). Analisis Literasi Multimodal Buku Cerita Anak Bergambar Sebagai Upaya Pemilihan Bahan Ajar Membaca Permulaan Siswa Sekolah Dasar. *EDUKASIA: Jurnal Pendidikan Dan Pembelajaran*, 4, 541–546. <http://jurnaledukasia.org>
- Purba, R. (2018). Improving the Achievement on Writing Narrative Text through Discussion Starter Story Technique. *Advances in Language and Literary Studies*, 9(1), 27. <https://doi.org/10.7575/aiac.all.v.9n.1p.27>
- Putri, T., Tenku, N., Abdul, N., Fariza, N., & Noor, M. (2014). The Multimodal Literacy Practices of Malaysian Youths in a Digital Environment. *Procedia - Social and Behavioral Sciences*, 141, 1171–1176. <https://doi.org/10.1016/j.sbspro.2014.05.199>
- Sari, D. P., Education, E., & Program, S. (2022). *Faculty of teacher training and education sriwijaya university 2022*.
- Shariman, T. P. N. T., Razak, N. A., & Noor, N. F. M. (2014). The Multimodal Literacy Practices of Malaysian Youths in a Digital Environment. *Procedia - Social and Behavioral Sciences*, 141, 1171–1176. <https://doi.org/10.1016/j.sbspro.2014.05.199>
- Sodiq, S., Indarti, T., Rokib, R. P. R., & Wijaya, T. (2023). *Implementation of Multimodal Literacy Principles in Scientific Journal Article Writing Course : Enhancing Learning Experience in Indonesian Language Education* (Vol. 2023, Issue Ijcah). Atlantis Press SARL. <https://doi.org/10.2991/978-2-38476-152-4>
- Yeh, H.-C., & Tseng, S.-S. (2020). LANGUAGE TEACHING AND TECHNOLOGY FORUM Enhancing multimodal literacy using augmented reality. *Language Learning & Technology*, 24(1), 27–37.
- Purba, H. S. R., & Pulungan, H. R. (2022). Pelatihan dan Pendampingan Literasi Bahasa Inggris pada Kelompok Anak-Anak di Desa Pudun Julu. *Marpokat: Jurnal Pengabdian Kepada Masyarakat*, 1(2), 77-85.