

# Video Blog (Vlog) Mathematics Learning: Media Innovation Explores Creative Mathematics Learning

Umy Zahroh<sup>1\*</sup>, Fitroh Ariansyah<sup>2</sup>, and Syed Muhammad Yousaf Farooq<sup>3</sup>

1. Universitas Islam Negeri Sayyid Ali  
Rahmatullah Tulungagung, Indonesia

2. SMP Nurul Anwar Pasuruan, Indonesia

3. The University of Lahore, Pakistan

## ARTICLE INFO.

### Keywords:

Mathematics Learning Media, Media  
Innovation, Video Blog (Vlog)  
Mathematics

## Abstract

Students often need help acquiring information about mathematics delivered in class within a limited timeframe, without the opportunity for repeated discussions or comprehensive review. Additionally, retaining previously taught material might be challenging. Hence, educators must establish efficacious instruction that stems from pioneering pedagogy. One of the advancements is the utilisation of educational media. This study examines the existing literature about using video blogs (vlogs) as a medium for educational purposes. This study employs the Systematic Literature Review (SLR) methodology. Data was gathered by systematically collecting and scrutinising articles about vlogs as an educational medium published between 2013 and 2023. This research utilised eight papers, theses, and dissertations from reputable national journals or conferences. The materials were collected through the Publish or Perish tool. The research findings indicate that including vlog media in the learning process can enhance the efficacy of instruction and positively impact students' learning outcomes. Thus, vlogs can be utilised as an educational tool for mathematics instruction. The essay provides a comprehensive analysis of the practicality of this innovation in enhancing mathematics education.

**To quote this article:** Zahro et al. (2023). Video Blog (Vlog): Media Innovation in Mathematics Learning explores creative mathematics learning. *Journal of Teaching and Learning Mathematics*, 1(2), 101-110. <https://doi.org/10.22219/jtlim.v1i2.28274>

## 1 Introduction

Mathematics plays a vital role in the education system. Mathematics is a fundamental scientific discipline that serves as the bedrock for the progress of other scientific domains (Ahlstrom & Jr, 2018; Ajeng, 2018; Wang & Chang, 2020). Mathematics has many practical uses in daily life, such as economics, health, social interactions, and art. Moreover, the progress of modern technology is intricately linked with the function of mathematics (Choi et al., 2020; Wicaksono, 2022). Therefore, mathematics is a mandatory subject in school. Incorporating mathematics in the classroom entails the mathematics instructor actively

participating in activities and processes focusing on studying and applying mathematical concepts with students.

This encompasses the teacher's endeavours to create a favourable setting and offer assistance that accommodates the pupils' various abilities (Nursaid et al., 2023), potentials (Choirudin et al., 2023), interests (Nasiha et al., 2023), talents (da Silva Santiago et al., 2023), and requirements (Arif et al., 2023), thereby promoting interaction (Darmayanti, 2023b). This approach is well-recognised as mathematical pedagogy.

\* Corresponding author.

Email addresses: [umy.z@uinsatu.ac.id](mailto:umy.z@uinsatu.ac.id)

ISSN: 3025-745X © 2024 JTLM. All rights reserved.

The importance of gaining mathematical knowledge is emphasised in Republic of Indonesia Law No. 10 of 2003 about the National School System article 37, which requires mathematics to be taught as a mandatory subject at all stages of schooling (Winson et al., 2023). The main goal of mathematics education is to improve cognitive abilities in individuals (Betyka et al., 2019). Mathematics education fosters the development of critical, creative, logical, and systematic thinking abilities in children (Ikhwannudin et al., 2023; Pandia & Drew, 2023; Suharsiwi et al., 2023). This aligns with Suherman's elucidation in the study conducted by Darmayanti, (2023a), which asserts that mathematics originates from the term mathematics, signifying knowledge obtained through cognitive processes. Learning mathematics aims to master understanding, clarify relationships between concepts, and skillfully and accurately apply concepts to solve problems (Baca et al., 2005; Baskoro et al., 2005; Cholily et al., 2005). Students ought to derive pleasure from the process of acquiring mathematical knowledge.

However, gaining mathematical knowledge is frequently seen as complex, frightening, and overwhelming, presenting a difficulty for most students. As Rahman, (2023) argues, mathematics is a complex field because of its abstract character and the puzzling symbols and formulas, which can pose difficulties for certain persons. This component plays a crucial role in the need for heightened motivation in the learning process, directly impacting students' restricted understanding of mathematics. The PISA report (Karim & Zoker, 2023) indicates that students' proficiency in mathematics remains a critical area that requires significant improvement. This is supported by empirical evidence when students' academic performance in the class remains below the minimum threshold or desirable benchmarks. Students have a gloomy attitude when approaching and engaging with academic subjects. They require assistance memorising formulas and face difficulties applying them, especially in simple or similar situations. Furthermore, students need assistance evaluating claims' accuracy and utilising formulas and theorems to solve the challenges. Students must improve their mathematics comprehension skills to solve mathematical problems effectively.

To consider students' viewpoints on acquiring mathematical knowledge (Schabas, 2023), educators must assume a pivotal position in fostering a stimulating and enjoyable educational setting for mathematics (Ahmed & Kumalasari, 2023). Teachers must demonstrate innovation and resourcefulness when developing their teaching approaches (Kartini et al., 2023; Yulianeta et al., 2024). One potential innovation is utilising media to foster students' inquisitiveness and motivation, enhancing their mathematical aptitude and academic performance (Amandangi, Mulyati, et al., 2020; Sakti & Yulianeta, 2018; Sembiring et al., 2020). Using learning media will improve the dissemination of instructional content by teachers. The educational press serves as a valuable instrument to augment the efficacy and productivity of educational activities. As per the research conducted by (Ats-Tsauri et al., 2021; Laila et al., 2023; Mutaqin et al., 2021), media positively affects students. According to Pradana & Uthman, (2023), using learning media can augment communication and involvement between educators and students. Moreover, utilising educational resources not only

enhances the enjoyment, significance, and accessibility of learning for students but also diversifies the instructional approaches to minimise monotony and promote higher participation in learning activities (Ahmad et al., 2023; Hussain & Xi, 2023).

An innovative learning medium that can be utilised is audio-visual media in the form of video blogs (vlogs). A vlog is a video content that serves as a visual blog, capturing a person's everyday activities in a comprehensive sequence of narratives (Umami et al., 2019). The term "video" is derived from the Latin-words "video" or "visum," which imply "seeing" (Sugianto & Darmayanti, 2021; Syaifuddin et al., 2022; Usmiyatun et al., 2023). Video is a form of media technology that captures, stores, and manipulates pictures. Meanwhile, a blog refers to a regularly updated online journal. Vlogs can be defined as the daily activities of a vlogger or vlog maker, presented in video format as a cohesive sequence of narratives (Bausir et al., 2023; Fauza et al., 2023; Laila et al., 2022).

According to Widyaningsih (2019), utilising vlogs as an educational tool positively impacts students' comprehension and enthusiasm for studying. Vlogs expose students to authentic, real-world scenarios relevant to the reviewed subject (Priana, 2017). Social media platforms like YouTube enable the convenient dissemination of vlogs, which students may access within and outside designated study periods. In addition, the utilisation of vlog media in education has a beneficial impact on enhancing learning efficacy, fostering self-reliance in learning, boosting learning drive, facilitating comprehension of topics, and improving learning outcomes. This necessitates the diligent focus of every instructor to consistently cultivate a classroom environment that is stimulating, engaging, and devoid of monotony. Doing so will encourage students to exhibit enthusiasm and active participation in their learning endeavours. A practical approach is utilising educational video content. By incorporating educational video media, teachers can effectively engage students, cultivate their curiosity, encourage further exploration of the subject matter, and facilitate comprehension of the instructional content.

The subject of integers is included in the curriculum for class VII Mathematics. Empirical evidence from the Pasuruan Assyfa Learning Centre (YALC) Foundation indicates that pupils in grade 7 struggle with comprehending integer concepts in middle school mathematics. Challenges in comprehending the idea of integers among students arise from various factors, including inadequate comprehension of given questions, insufficient understanding of arithmetic operations, aversion towards learning mathematics, lack of attentiveness during teaching sessions, issues with online learning due to signal disruptions, and reduced class hours. Gaining proficiency in integer arithmetic operations is crucial for pupils to comprehend. This is because operations involving whole numbers are the fundamental building blocks for learning more advanced mathematical ideas. Thus, the aim is to utilise video blogs to impart knowledge about integers, enabling students to effectively articulate concepts and illustrate real-life instances using the content featured in the videos.

Multiple studies have investigated the use of vlogs as an educational tool to enhance the teaching and learning process, enhance learning achievements, and promote the development of character values during learning (Arifatin

et al., 2023; Dermawan, 2021; Febianti, 2021; Karamina et al., 2020; Lestari, 2019; Mudarris et al., 2022; Pranata & Rizki, 2023; Sugiono & Irwansyah, 2019; Wu, 2023). Multiple research studies have yielded vlog outcomes appropriate for utilisation as educational resources. Nevertheless, studies on educational vlogs have not identified any vlogs being utilised as a medium for learning mathematics. In addition, there has been a lack of mathematics instruction focused on comprehending grade 7 junior high school content. This instruction aims to help students grasp the concept of integers, commonly encountered when purchasing items such as lamps, televisions, refrigerators, cell phones, computers, and fans. The video material of the platform covers topics such as wind, eggs, and various other subjects. Another distinction is the inclusion of video blog content in this research, which is not based on research findings. This content is sourced from YouTube and is intended to serve as an inspiration for applying prior research studies by synchronising them with video content. Produce high-

quality educational vlog videos focused on mathematics learning.

Researchers find it intriguing to perform a literature review on using video blog (vlog) media in educational settings. The results of this literature review are expected to serve as a solid foundation for researchers to enhance the development of vlog media in junior high school mathematics education, particularly in the context of integer concepts.

## 2 Method

This study utilises the systematic literature review (SLR) methodology to identify, evaluate, and analyse all relevant research to address research enquiries using the 7P technique (Darmayanti, 2022). Figure 1 illustrates the sequential phases of the Systematic Literature Review (SLR) study using the 7P approach.

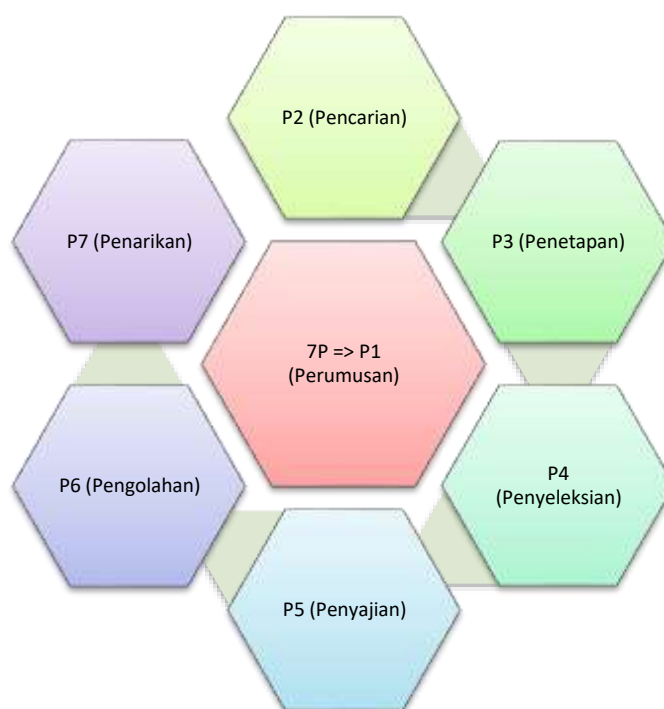


Figure 1. 7P Method

Figure 1 depicts the sequential process of the 7P technique in a Systematic Literature Review (SLR). The term "P1" denotes the stage of formulation. The formulation seeks to define the precise research enquiries that will be pursued. The next phase is P2, mainly referred to as Search. Search entails actively seeking solutions from literature, with a specific focus on step P1. The third phase involves the establishment of specific criteria. The determination of P3 depends on the application of inclusion and exclusion criteria. Step P4 entails the identification and choice of pertinent material. Step P5, or data presentation, is centred around presenting the gathered data. Step P6 entails manipulating and analysing the data, whereas Step P7 is focused explicitly on concluding the processed information.

Firstly (P1), the investigation focuses on the individuals who have utilised vlog media for educational intentions. (Q1) What are the positive impacts of vlogs as an

instructional medium on students? Question 2/Q1: What are the negative consequences or constraints of using vlogs as an educational medium? (Question 3/Question 1). Subsequently, an extensive literature search (P2) was performed on the Google Scholar database using the Publish or Perish tool. The designated keyword is "learning video blog", with a limitation on entries published from 2013 to 2023.

The objective is to find literature studies that specifically examine the usage of vlogs as an educational tool for middle-class, vocational, and university students. Only study findings published in academic publications or presented at national seminar sessions were considered. In addition, the literature obtained was meticulously selected and evaluated based on precise criteria for inclusion and exclusion. A total of 892 articles were gathered, specifically emphasising keywords. The articles were selected based on specific criteria for inclusion and exclusion. This entailed merging the phrases "learning

video blog" and "Mathematics" and later incorporating "media innovation" into the search. In consequence, a total of 8 articles were selected. The next stage entails recording the items in a tabular structure. Afterwards, the researcher conducted a comprehensive examination and analysis of the papers, focusing on the section that presented the research findings. After completing the research, the researcher compares the findings and delivers clear and conclusive conclusions.

### 3 Results and Discussion

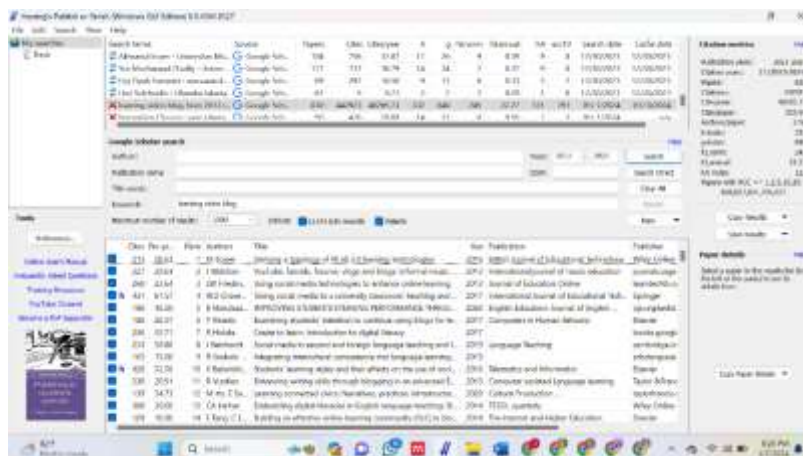


Figure 2. First Stage P1 Selecting and analysing content

Step 4 is equivalent to Figure 2. utilising 830 articles gathered, with a specific emphasis on keywords-related data. The articles were selected based on precise criteria for inclusion and exclusion. This entailed using the keywords "learning video blog" and "Mathematics", subsequently combining "learning video blog" and "Mathematics" with "media innovation" and, ultimately, with "junior high school". The application of these criteria led to the selection of 8 articles, which will be further examined in the subsequent section:

#### 3.1 Educational Vlog

The vlog produced is suitable for use as an educational resource in physics, which improves students' independence and competence in the topic, particularly among students of average ability (Fitriyani & Wiyatmo, 2017). Technological progress can guide individual development throughout the rugged. One instance is using vlogs to stimulate students' curiosity and enthusiasm for educational objectives (David et al., 2017). The study conducted by Indiyatmi (2018) found a solid and favourable association between vlog content and student attitudes, as indicated by a correlation coefficient of 37.21%. According to Muzacky (2019), vlogs have been discovered to boost students' creativity and enhance their academic achievements. The vlog format has been considered appropriate for educational purposes and has demonstrated efficacy in improving students' learning outcomes compared to conventional techniques (Susanti, 2019). Vlogs can function as tasks for history learning projects, augmenting students' creativity and understanding of the educational content (Iqbal & Latifah, 2019). The vlog format suits

This study utilises the systematic literature review (SLR) methodology, which aims to identify, evaluate, and analyse all relevant research to address research inquiries using the 7P strategy (Darmayanti, 2022). The first stage, P1 Fourth (P4), entails selecting and analysing content according to predefined criteria. To accomplish this, one must search for English articles on a publishing platform or website using the keyword "learning video blog", as illustrated in Figure 2.

physics instruction (Umami et al., 2019). Moreover, studies indicate that vlogs are highly suitable for biology instruction (Triputra & Kurniawan, 2019). Vlogs are an effective and prosperous means for spreading da'wah knowledge (Widyaningsih, 2019). Using vlog media to learn how to generate news texts is more effective than traditional ways. The manufactured products exhibit efficacy and functionality, with the capacity to augment pupils' motivation for acquiring knowledge (Muzhaffar, 2020). The vlog created is a potent medium for studying graphic design, fostering students' independence and strengthening their educational achievements.

When instructional films are used in courses, students increase engagement by actively asking questions and conversing about the material being studied. The number of students questioning during the conversation indicates that educational video media can boost student motivation and involvement throughout the learning process. Conventional educational methods involve professors using verbal communication to impart information and concepts. This leads pupils to adopt a passive attitude and lack motivation to participate actively in learning. The description above suggests that the use of video media for education has a positive effect on academic performance in several subjects. This educational video medium exceeds standard learning media. Therefore, video media is crucial in educational practices to enhance student learning.

#### 3.2 Analysis Vlog by Top

None of the researchers found integer material. Such use would help pupils understand mathematical ideas. The analysis showed vlog media usage by topic and purpose. These findings are in Table 1.

Table 1. analysis showed vlog media usage by topic and purpose

No.	Topic and Purpose	Information
1	Utilisation of Vlogs Based on Eye Lessons	From analysing the eight chosen articles, the researchers still need to identify the application of vlog media in mathematics teaching. Several studies precede Physics, Chemistry, Geography, History, Biology, Islamic Religious Education, Indonesian, History, and Graphic Design, but others do not explicitly indicate the subjects. Prioritise choosing a good location that corresponds to the subject matter, or consider creating a suitable background if you plan to record from home. Moreover, ensure that you thoroughly comprehend the topic you have made. Furthermore, it is vital to partake in consistent physical activities to enhance one's capacity to express ideas precisely and elegantly. Refrain from using offensive language, and be conscious of your physical appearance (Asnur et al., 2020; Prayitno & Hertiki, 2022; Sakariah, 2023). Vlogging, or video blogging, is a kind of blogging that primarily uses videos instead of text or voice. It entails utilising gadgets like camera phones, digital cameras with video recording capability, or affordable microphones to generate and distribute video content. Vlogmakers are called vloggers (Wikipedia Bahasa Indonesia 2020). A vlog, short for a video blog, is a brief video recording that usually showcases personal thoughts, stories, or daily activities, occasionally posted on a blog platform. Vlogs initially emerged as a platform for individuals to express their opinions and perspectives to a broader audience (David, 2017). It began demonstrating a significant presence in 2004 and consistently grew in popularity. Information and Communication Technology (ICT) based learning tools, namely innovative platforms such as Vlogs, can increase students' involvement in learning and stimulate their curiosity. In practice, professors are limited to providing instructions and guidance, while students are accountable for demonstrating innovation. The emphasis is placed on fostering creativity and enhancing students' ability to articulate their views through individual and group vlogs in the form of topic presentations. To augment the attractiveness, inventiveness, and pleasure of the educational experience.
2	Influence Positive Vlogs As Media Learning	The examination of eight selected papers demonstrates that vlogs positively impact students to enhance their learning. The content analysis approach evaluates both favourable and unfavourable effects. The study indicates that vlogs possess numerous beneficial advantages as educational tools. These encompass promoting students' autonomy and understanding, nurturing students' passion and curiosity for learning, building favourable attitudes, enhancing creativity, and improving educational achievements (Lapi et al., 2021; Mufidah & Roifah, 2020; Zaeriyah, 2022). Vlogs have been discovered to be productive instructional aids, promoting the active involvement of students. Understanding educational and creative materials can serve as an effective means for pupils, enabling them. These resources can be utilised as educational tools, transcending the efficacy of conventional approaches, raising students' motivation, cultivating autonomy, and enhancing their learning achievements.
3	Influence Negative Vlogs As Media Learning	Limitations of vlogs as educational media: Among the eight selected articles, only three explicitly acknowledged the limitations of analysing vlog material. These deficiencies encompass constraints in both temporal and material resources for vlog production and the necessity of dependable internet connections for vlog uploading or retrieval. The remaining articles should have provided a more extensive analysis of this subject matter. They are concerned about the lack of exploited educational resources. Another disadvantage is that Vlogs have intrinsic advantages in education, such as promoting greater transparency among students in the Arabic Language. By default, without reading the textual information. While recording videos, students hide the written material or manuscript behind the camera to make their speech by reading it. This limitation violates the concept of a positive mentality, which states that vlogs that use technology have a flexible value. The subsequent weakening directly results from the demonstrated expression inside the stipulated range using Qawaid. This error primarily manifests in Arabic subjects, specifically in morphology (Sharaf) and syntax (Mahou). For example, errors in morphemes pertain to inaccurate word categories, such as substituting "muzak" for "Muanats" and vice versa. Many students still require assistance distinguishing the structural aspects of phrases, including the Rudolf-Rudolf Ilaiah and naat-can't. Some people use Tarkib Idlofah. Nevertheless, it is imperative that they strictly comply with the prescribed criteria for creating Tarkib Idlofah.
4	Selecting Learning Models for Utilising Vlogs as an Educational Medium	Teachers who incorporate vlog media in the classroom utilise diverse learning models or strategies to facilitate the transmission of messages through this medium. Two of the eight papers studied employed the Learning Through Disclosure/Discovery (Discovery/Inquiry Learning) model, the most commonly selected approach among the various learning techniques. Applying the discovery learning approach in vlog media can improve the understanding of scientific concepts among junior high school students and social studies issues among primary school students. Two publications subsequently utilise the Problem-Based Learning (PBL) paradigm. The utilisation of vlog media, along with implementing the Problem-Based Learning Model, backed by Lesson Study Video Media, seeks to improve the academic achievements of high school students in chemistry and physics. Furthermore, the primary instructional approach chosen or utilised to promote vlogs as an educational tool is the Project-Based Learning (PjBl) model in Arabic, specifically for science and physics at the high school and middle school levels.

### 3.3 The utilisation of vlog media as a means of disseminating Mathematics learning information on Social- Media

Presently, the curriculum employed for education is the Merdeka Belajar (Kurmer) curriculum. Various research indicates the utilisation of novel learning tools, including Learning Videos. Video is an educational media that is experiencing a resurgence

in popularity due to its ability to provide lesson information engagingly and understandably for students. According to specific social media material, vlog media is utilised in learning mathematics, as seen in their instructional films. To enhance the excitement and interactivity of the teaching and learning process, students might experiment with the following strategies as unique and original learning tools that captivate student interest. Amidst a

pandemic, vlog media is frequently selected. Utilising Vlogs for Mathematics Education amidst the Pandemic During this Vlog learning session, the teacher grants pupils the autonomy to construct their sequence of events. The purpose was to assess the students' originality level in producing the vlog films they would present. Students can select the location and medium for creating Vlog films if they adhere to the topics employed in Mathematics education. When incorporating vlog media into mathematics instruction for junior high school students, it is essential to consider various factors. These include conducting a content analysis of social media platforms to ensure the information is based on integers.

1. *Teachers must acknowledge that there are other factors to consider while utilising it, including Inspiration and topic* (Fauziah et al., 2021; Rahmawati et al., 2022; Santosa et al., 2022). Further clarification is required regarding the specific content topics that are being used. The teacher's assigned topics are crucial in Mathematics learning activities using Vlog, such as mathematics vlog media during the pandemic. You can provide a theme, specifically "stay at home". This is intended to bolster the government's endeavours to mitigate the rate of transmission of COVID-19, particularly in the specific regions where the teachers are instructing. This is feasible due to the green zone status of the surrounding area, which implies that the concept of being "at home" does not necessarily require one to be physically inside the house. Students may be able to engage in household activities but are restricted from travelling to other locations. The teacher presents the many types of material and questions students will encounter through vlogs. Students are required to arrange their thoughts and ideas in a script format. Students can generate scenario concepts if they adhere to the pre-established subject. The ability to create scenarios freely will significantly impact students' creativity in producing a Vlog video. A vlog video discusses numbers, but the notion presented is unrelated to the main issue. The video to be discussed in the content is not subject to any time constraints.
2. *Utilising vlog media for teaching integer concepts in mathematics helps cultivate a sense of self-assurance* (Anshorihyah et al., 2023; Mogelea et al., 2023; Naruvita et al., 2022). The proficiency in oral communication acquired via language instruction is crucial in fostering self-assurance. A trusting mindset enables an individual to articulate their comprehension through auditory interpretation. Students utilise vlog media to develop proficiency in speaking a second language, namely Arabic and Indonesian, which offers a unique experience. Attaining self-confidence necessitates a lengthy period of preparation. This preparation involves honing the skills required to deliver a performance in Arabic to communicate in front of an audience. Although this form of communication remains unidirectional, it can instil a sense of assurance in most users when acquiring knowledge.

3. Creating vlog content for teaching integer mathematics should be straightforward and adaptable. The primary tool for creating Vlogs is a gadget known as a Gadget. The technological devices showcased at the Gadget exhibit exemplify the simplicity of producing Vlog content. Gadgets enable the utilisation of image capture technology, commonly called a camera. The inherent adaptability of this attribute facilitates the creation of educational content by students through vlogs. This simplicity is also evident when the publishing process, which necessitates an internet connection on the Gadget device, is readily accessible.
4. *Using vlog media for teaching integer mathematics should be cost-effective and affordable* (Amandangi, Yulianeta, et al., 2020; Halimah et al., 2022; Liliani et al., 2021). The economic significance of this media lies in the widespread ownership of electronic devices among students. This aligns with the primary device of the Vlog. Pupils do not require additional devices as supplementary learning resources. Utilise the available resources to enhance their comprehension of mathematical principles.
5. *Vlog media used for teaching integer mathematics should have the capacity to enhance creativity* (Gunawan et al., 2022; Kurnianto et al., 2022; Nurkamila et al., 2022). Utilising Vlogs as an educational medium can enhance students' ingenuity in creating vlogging videos to be disseminated on social media platforms. The published creative outcomes enable pupils to improve their confidence in communication skills for future situations. The video results will also influence the audience's drive to acquire knowledge in mathematics. The design of a vlog medium for learning mathematics on integer material should adhere to the project-based learning strategy. The PJBL-designed content elucidates that comprehending the concept of integers fosters the cognitive capacities of pupils, enabling them to exhibit creativity and proficiency while promoting collaboration. Delivering a complete set of materials involves several steps: problem identification, planning, scheduling, project monitoring, and assessment and evaluation using tangible resources.

Students have a preference for tangible objects or experiences that are relatable to their daily lives. Similarly, instruction plays a crucial role in acquiring knowledge, particularly in effectively presenting information about numbers. No research was discovered on developing and using vlogs for junior high school pupils in mathematics education, explicitly focusing on integers and utilising the Problem-Based Learning (PJBL) approach. The only scholarly solution found was a literature review of mathematics vlogs, which demonstrated intelligence and cultural awareness (Harahap et al., 2019). Additionally, systematic literature review (SLR) videos that discussed the advantages and disadvantages of mathematics vlogs were found. However, these videos did not delve into teachers' specific models or strategies when implementing or

utilising vlog media in the learning process. According to Widyarningsih (2019), vlogs based on Project-Based Learning (PJBL) can benefit students' learning. Blogs provide students with direct exposure to real-world circumstances, allowing them to engage with learning materials without direct involvement. This can enhance students' interest and excitement for learning (Priana, 2017). Utilising vlogs as an educational medium enhances the retention of knowledge among students, as they engage nearly all of their senses, resulting in a more profound understanding than other forms of media. Thus, to enhance the learning experience of junior high school pupils, more investigation can be conducted by creating vlog media based on PJBL (Project-Based Learning) designed explicitly for the study of mathematics, with a focus on numbers. Figure 3 illustrates an instance of integer vlog media used in mathematics education on social media.

Multiple studies indicate that vlogs, when used as a learning medium, enhance learning outcomes (Indiyatmi, 2018; Muzhaffar, 2020), increase learning motivation (Priana, 2017; Susanti, Apto, & Agung, 2020), foster learning independence (Fitriyani & Wiyatmo, 2017; Muzhaffar, 2020), stimulate students' creativity (Indiyatmi, 2018; Susanti, 2019), and promote positive attitudes among students (David, Sondakh, & Harilama, 2017). According to the



Figure 3. illustrates an instance of integer vlog media used in mathematics education on social

findings of Widyarningsih (2019), Muzacky (2019), and Triputra & Kurniawan (2019), vlogs are more effective than traditional learning methods when utilised as an educational medium. According to two development studies (Iqbal & Latifah, 2019; Umami, Chodzirin, & Khasanah, 2019), vlogs are considered conceptually appropriate for instructional media (Abduh et al., 2023; Marzuki et al., 2021; Winahyu et al., 2023). However, their effectiveness needs to be demonstrated through practical evidence (Budiarti et al., 2022; Darmawati et al., 2013; Muthmainnah et al., 2022; Wulan et al., 2023). Conversely, only publications that discussed the limitations of vlogs as an educational tool were discovered. When incorporating vlogs as an educational tool, educators and researchers must consider the constraints of time and resources required for vlog production. A

reliable internet connection is essential for uploading and accessing vlogs (Iqbal & Latifah, 2019).

#### 4 Conclusion

The utilisation of vlog media in education has a beneficial impact on learning efficacy, self-reliance in learning, motivation to learn, and comprehension of topics and learning results. However, further investigation is required about utilising vlog media in the context of mathematics education. This literature study examines the use of vlog media in learning and can serve as a foundation for developing video blog (vlog) media in mathematics education. Vlogs are utilised as an instructional medium to augment knowledge retention in pupils, as they actively include nearly all of their senses, leading to a more profound comprehension than other types of media. To improve the learning experience of junior high school students, further research can be carried out by developing vlog media centred around PJBL (Project-Based Learning), which is created explicitly for the study of mathematics, with a particular emphasis on numerical concepts.

#### 5 Reference

- Abduh, A., Mulianah, A., Darmawati, B., Zabadi, F., Sidik, U., Handoko, W., & ... (2023). The Compleat Lextutor Application Tool for Academic and Technological Lexical Learning: Review and Bibliometric Approach. *Indonesian Journal of Science and Technology*, 8(3), 539–560.
- Ahlstrom, L. J., & Jr, F. G. M. (2018). Another Day, Another Vlog: The Alchian-Allen Theorem, Social Media, and Long-Distance Relationships. *Perspectives on Economic Education Research*.
- Ahmad, F. N., Mispani, M., & Yusuf, M. (2023). Integrasi Kurikulum Pendidikan Islam Pondok Pesantren Dan SMA. *Assyfa Journal of Islamic Studies*, 1, 73–86.
- Ahmed, M. A., & Kumalasari, N. (2023). ANDIN-MU: Development of Android-Based Descriptive Text Interactive Multimedia Materials in High School English Subjects. *Assyfa Learning Journal*, 1, 49–59.
- Ajeng, A. T. (2018). Vlogger dan Konten Vlog YouTubers Palu: Motivasi Menjadikan YouTube Sebagai Media Berekspresi. *Kinesik*. <https://jurnal.fisip.untad.ac.id/index.php/kinesik/article/view/60>
- Amandangi, D. P., Mulyati, Y., & Yulianeta, Y. (2020). Cerita Rakyat Sebagai Bahan Pengayaan Literasi Budaya Bagi Pemelajar BIPA Tingkat Menengah. *Jurnal Pendidikan Bahasa Dan Sastra*, 20(2), 157–166.
- Amandangi, D. P., Yulianeta, Mulyati, Y., & Prasetyo, S. E. (2020). Web-Based Learning Design on Folklore Text for Intermediate Indonesian Language for Foreign Speakers (BIPA). *2020 The 4th International Conference on Education and Multimedia Technology ...*
- Anshorihyah, S., Levryn, P. K., Annisa, N., Abidah, N., &

- Budiarti, E. (2023). URGENCY OF INITIAL ASSESSMENT IN DETERMINING A MODEL OF EARLY CHILDHOOD LEARNING. *Prosiding Pendidikan Anak Usia Dini*, 1(2), 25–38.
- Arif, V. R., Afnan, M., Usmyatun, U., & Lestari, C. Y. (2023). Development of Social Studies Animation Video (S2AV) Teaching Materials on the Material "Plurality of Indonesian Society" for Junior High School Students. *Assyfa Learning Journal*, 1(1), 1–11.
- Arifatin, F. W., Mafrudloh, N., & Dewi, A. R. (2023). Improving Students' Speaking Performance Through Digital Vlog Media. *Journal on Education*. <https://jonedu.org/index.php/joe/article/view/1249>
- Asnur, L., Ambiyar, R. D., & Verawardina, U. (2020). Project-based learning uses vlog media on food and beverages products. *International Journal of Scientific and ...*
- Ats-Tsauri, M. S., Cholily, Y. M., Azmi, R. D., & Kusgiarohmah, P. A. (2021). Modul Relasi dan Fungsi Berbasis Kemampuan Komunikasi Matematis. *JNPM (Jurnal Nasional Pendidikan Matematika)*, 5(1), 109–124.
- Baca, M., Baskoro, E. T., & Cholily, Y. M. (2005). Face antimagic labelings for a special class of plane graphs  $C_n \sim a^b$ . *JOURNAL OF COMBINATORIAL MATHEMATICS AND COMBINATORIAL COMPUTING*, 55, 5.
- Baskoro, E. T., Sudarsana, I. W., & Cholily, Y. M. (2005). How to construct new super edge-magic graphs from some old ones. *Preprint*.
- Bausir, U., Inganah, S., & Darmayanti, R. (2023). Implementation of "Kurikulum Merdeka Belajar": What's the Problem, Difficulty, and Solution? *Numerical: Jurnal Matematika Dan Pendidikan Matematika*, 7(1).
- Budiarti, E., Farista, D., Palupi, D. I., Wara, L. W., Rubiah, S. A., & Harti, U. (2022). Storytelling One Day One Book Terhadap Kemampuan Bahasa Ekspresif Anak Usia 4-5 Tahun. *Jurnal Pendidikan Indonesia*, 3(12), 1091–1101.
- Choi, S. J., Ryu, A. R., & Jeong, J. Y. (2020). The effects of attractive attributes of single-person media (Travel Vlog) on tourism motives and eWOM. *Korean Journal of Hospitality & Tourism*.
- Choirudin, C., Sugilar, H., & Uluçay, V. (2023). TTM Magic Card Media Development! *Assyfa Learning Journal*, 1(2).
- Cholily, Y. M., Baskoro, E. T., & Uttunggadewa, S. (2005). Some Conditions for the Existence of (d,k)-Digraphs. *Combinatorial Geometry and Graph Theory: Indonesia-Japan Joint Conference ...*
- da Silva Santiago, P. V., Darmayanti, R., & Sugianto, R. (2023). Conquering IMO Problems in Brazil by Recognizing the Didactic Situation, Mathematics Teachers Must Know! *Assyfa Learning Journal*, 1(2), 73–88.
- Darmawati, B., Hakim, Z., Arriyanti, A., Mustafa, M., Idham, I., Uniawati, U., & ... (2013). Sawerigading: jurnal bahasa dan sastra volume 19, nomor 2, Agustus 2013. *Balai Bahasa Sulawesi Selatan*, 19(2).
- Darmayanti, R. (2023a). BAPER AKU: Development of a Commendable Moral-Based Permutation Board Game for High School Students. *Delta-Phi: Jurnal Pendidikan Matematika*, 1(1).
- Darmayanti, R. (2023b). Gema Cow-Pu: Development of Mathematical Crossword Puzzle Learning Media on Geometry Material on Middle School Students' Critical Thinking Ability. *Assyfa Learning Journal*, 1(1), 37–48.
- Dermawan, A. (2021). Storytelling Digital Lewat Vlog Sebagai Media Rebranding Basuki Tjahaja Purnama. *Communicology: Jurnal Ilmu Komunikasi*. <http://journal.unj.ac.id/unj/index.php/communicology/article/view/15529>
- Fauza, M. R., Baiduri, B., Inganah, S., Sugianto, R., & Darmayanti, R. (2023). Urgensi Kebutuhan Komik: Desain Pengembangan Media Matematika Berwawasan Kearifan Lokal di Medan. *Delta-Phi: Jurnal Pendidikan Matematika*, 1(2), 130–146.
- Fauziyah, R., Hardini, T. I., Sunendar, D., Yulianeta, Y., Kurniawan, K., & ... (2021). Language As a Unifying Nation: The Existence of Digital Literacy in Countering Hoaxes. *Jurnal Penelitian Pendidikan*, 22(1), 98–107.
- Febianti, K. (2021). Pemanfaatan Vlog Sebagai Media Pembelajaran Bahasa Inggris. *Jurnal Pendidikan Pemuda Nusantara*. <http://jurnal.stkipmpagaralam.ac.id/index.php/jppn/article/view/65>
- Gunawan, M. A. P., Harini, Y. N. A., & Yulianeta, Y. (2022). Stereotipe, Diskriminasi, Segregasi Sosial, dan Resistensi dalam Novel Ivanna van Dijk Karya Risa Saraswati. *Artikel Pendidikan Bahasa Dan Sastra Indonesia*, 2(1).
- Halimah, H., Sumiyadi, S., Yulianeta, Y., & Sembiring, S. U. B. (2022). The Influence of CERDIK and Short Story Videos on Students' Learning Motivation in Indonesian Prose Fiction Appreciation. *Sixth International Conference on Language, Literature, Culture, and ...*
- Hussain, N., & Xi, W. (2023). Islam and International Standards of Human Rights: An Analysis of Domestic Implementation of International Human Rights in Islamic Culture. *Assyfa Journal of Islamic Studies*, 1, 1–12.
- Ikhwannudin, M., Mispani, M., & Yusuf, M. (2023). Nilai-Nilai Pendidikan Islam Dalam Puasa Ngrowot. *Assyfa Journal of Islamic Studies*, 1, 41–50.
- Karamina, S., Arsal, T., & Sunarjan, Y. (2020). The Role of Social Studies Teacher in the Use of YouTube Vlog-Based Learning Media. *International Conference on ...* <https://www.atlantispress.com/proceedings/iset-19/125941414>



- Karim, S., & Zoker, E. M. (2023). Technology in Mathematics Teaching and Learning: An Impact Evaluation in Selected Senior Schools in Masingbi Town. *Assyfa Learning Journal*, 2, 60–72.
- Kartini, A., Sunendar, D. D., Sumiyadi, S., & Yulianeta, Y. Y. (2023). Analysis of Design Needs for Mobile Application Development Poetry Creation as a Learning Media for Writing Poetry. *KEMBARA: Jurnal Keilmuan Bahasa, Sastra, Dan Pengajarannya*, 9(2).
- Kurnianto, E., Yulianeta, Y., Fikri, M., & Istiana, I. (2022). The Cultural Meaning of the Wonosobo Social Community in Agricultural Spells. *Proceedings of the First International Conference on Democracy and Social ....*
- Laila, A. R. N., Cholily, Y. M., Syaifuddin, M., Darmayanti, R., Sugianto, R., & ... (2023). Desain Modul Matematika Bilingual: Urgensi Pengembangan Media Matematika Bilingual dengan konten Islami. *Assyfa Journal of Islamic Studies*, 1(2).
- Laila, A. R. N., In'am, A., & Darmayanti, R. (2022). AKM content: developing a mathematical problem-solving test based on Islamic context at MTs. *AMCA Journal of Religion and Society*, 2(1).
- Lapi, Z., Yunus, M., & Hamid, S. (2021). The Implementation of Student Facilitator and Explaining Learning Model using Vlog Media to Improve the Creativity and Learning Outcomes of Students in Social .... *Bosowa Journal of Education*. <https://journal.unibos.ac.id/jpe/article/view/1166>
- Lestari, N. (2019). Improving the speaking skill by vlog (video blog) as learning media: The EFL students perspective. *BEST PRACTICES IN EDUCATION MANAGEMENT* .... [https://www.researchgate.net/profile/Nurul-Fadly-Habidin-2/publication/361983616\\_Best\\_Practices\\_in\\_Education\\_Management\\_Teaching\\_Learning\\_and\\_Research/links/62cfc2d7156f534a680f059/Best-Practices-in-Education-Management-Teaching-Learning-and-Research.pdf#page=96](https://www.researchgate.net/profile/Nurul-Fadly-Habidin-2/publication/361983616_Best_Practices_in_Education_Management_Teaching_Learning_and_Research/links/62cfc2d7156f534a680f059/Best-Practices-in-Education-Management-Teaching-Learning-and-Research.pdf#page=96)
- Liliani, E., Wiyatmi, W., Yulianeta, Y., Budiyanto, D., & Kusmarwanti, K. (2021). Pelatihan Menulis Cerpen Berwawasan Mitigasi Bencana Covid-19 untuk Guru Mata Pelajaran Bahasa Indonesia. *Dimasatra*, 2(1).
- Marzuki, A. G., Santiana, A. K., Alek, N. F., Darmawati, B., & Bin-Tahir, S. Z. (2021). The Teaching of EFL Vocabulary through Anticipatory Learning Strategy in Islamic Higher Education Context in Indonesia. *The Teaching of EFL Vocabulary through Anticipatory Learning Strategy in ....*
- Mogelea, B., Setyaningsih, D., Suchati, M., Wakulu, P. R., & Budiarti, E. (2023). Edukasi Menabung dalam meningkatkan Literasi Finansial Anak Usia Dini di TK Tunas Muda IKKT Jati Makmur. *Aksara: Jurnal Ilmu Pendidikan Nonformal*, 9(2), 1029–1038.
- Mudarris, B., Rozi, F., & Islamiyah, N. (2022). Penggunaan Media Vlog dalam Pengembangan Kemampuan Motorik Anak. *Jurnal Ilmiah Potensia*. <https://ejournal.unib.ac.id/potensia/article/view/17885>
- Mufidah, Z., & Roifah, M. (2020). Vlog as learning media to train English fluency and public speaking skill. *Prosodi*. <https://journal.trunojoyo.ac.id/prosodi/article/view/7193>
- Mutaqin, A., Syaifuddin, M., & Cholily, Y. M. (2021). Ethnomathematics Based Geometry Module Development with a Scientific Approach to Improve Students' Metacognition Ability. *IndoMath: Indonesia Mathematics Education*, 4(1), 11–25.
- Muthmainnah, M., Vargheese, K. J., Seraj, P. M. I., Darmawati, B., & Asrifan, A. (2022). Digital Mangatoon to Born Out New Peace in English Classroom. *JELITA: Journal of Education, Language Innovation, and Applied Linguistics 1 ....*
- Naruwita, S. R., Budiarti, E., Wahyuningsih, S. E., Herayati, T., & Buton, M. (2022). Memanfaatkan Getah Pisang Untuk Membatik Pada Anak Usia Dini: Getah Pisang Membatik AUD. *Mimbar Pendidikan Indonesia*, 3(3).
- Nasiha, W., Afifah, N., & Amir, A. N. (2023). Design of a Website-Based Arabic Typing Application for Students of Arabic Language Education Program at University. *Assyfa Learning Journal*, 1, 12–24.
- Nurkamila, M., Hardini, T. I., Sunendar, D., & Yulianeta, Y. (2022). Benarkah Media Sosial Menjadi Pendorong Motivasi Mahasiswa Belajar Bahasa Asing Di Kota Bandung? *BAHASA DAN SASTRA*, 22(2).
- Nursaid, N., Faisol, M., & Rahman, A. (2023). Exploring the Shari'ah economic learning model through virtual learning: Initiatives and challenges. *Assyfa Journal of Islamic Studies*, 2.
- Pandia, W. S. S., & Drew, A. (2023). Identifying and solving Islamic religious education challenges for special needs children. *Assyfa Journal of Islamic Studies*, 1(2).
- Pradana, M. D., & Uthman, Y. O. O.-O. (2023). Development of Aqidah Akhlak Learning Media" Board Game Based on Education Fun on the Theme of Commendable Morals (E-Fun A2M)" for High School Students. *Assyfa Learning Journal*, 1, 25–36.
- Pranata, H., & Rizki, B. N. T. (2023). Vlog Media Utilization To Improve English Speaking Skills. *Jurnal Arjuna: Publikasi Ilmu Pendidikan ....* <https://journal.aripi.or.id/index.php/Arjuna/article/view/48>
- Prayitno, V. A., & Hertiki, H. (2022). The Students' Perception of Learning Media using Londo Kampung Vlog. *Wahana*.

- <https://jurnal.unipasby.ac.id/index.php/whn/article/view/6287>
- Rahman, M. A. (2023). Professional development in an institution through the GROW model. *Assyfa Learning Journal*, 2, 112–121.
- Rahmawati, K. D., Yulianeta, Y., Hardini, T. I., Sunendar, D., & Fasya, M. (2022). Xenoglosofilia: Ancaman Terhadap Pergeseran Bahasa Indonesia di Era Globalisasi. *Jurnal Penelitian Pendidikan*, 22(2), 168–181.
- Sakariah, D. S. (2023). Japanese Women's Daily Vlog as an Alternative Media for Learning Japanese Culture. *International Conference of Culture and ...*  
<http://proceedings.undip.ac.id/index.php/icocas/article/view/729>
- Sakti, M., & Yulianeta, Y. (2018). Perbandingan Implementasi Metode Suggestopedia dalam Pembelajaran Menulis Puisi dan Cerpen. *Seminar Internasional Riksa Bahasa*, 1095–1104.
- Santosa, R. K., Hardini, T. I., Sunendar, D., Yulianeta, Y., Ruhaliyah, R., & Koswara, D. (2022). Perbandingan Penggunaan Bahasa Sunda Baku di Daerah Majalengka dan Ciamis. *LOKABASA*, 13(2).
- Schabas, A. (2023). Game-Based Science Learning: What are the Problems with Teachers Practicing It in Class? *Assyfa Learning Journal*, 2, 89–103.
- Sembiring, H., Br, S. U., & Yulianeta, Y. (2020). Kajian Bandingan Nilai-Nilai Budaya dalam Cerita Rakyat Timun Mas dan Momotaro serta Implikasinya sebagai Bahan Ajar BIPA Penutur Jepang Tingkat Menengah. *Universitas Pendidikan Indonesia*.
- Sugianto, R., & Darmayanti, R. (2021). Teachers in their perceptions and influences on LINU, positive or negative? *AMCA Journal of Science and Technology*, 1(1), 20–24.
- Sugiono, S., & Irwansyah, I. (2019). Vlog Sebagai Media Storytelling Digital Bagi Tokoh Publik Pemerintahan. *Jurnal Studi Komunikasi Dan Media*.  
<https://jurnal.kominfo.go.id/index.php/jskm/article/view/2101>
- Suharsiwi, S., Lestari, J. T., & Karim, S. (2023). Islamic content-based learning: Kindergarten illustrated narrative song "Lulu and Tom". *Assyfa Journal of Islamic Studies*, 1.
- Syaifuddin, M., Darmayanti, R., & Rizki, N. (2022). Development of a two-tier multiple-choice (TTMC) diagnostic test for geometry materials to identify misconceptions of middle school students. *Jurnal Silogisme: Kajian Ilmu Matematika Dan Pembelajarannya*, 7(2).
- Usmiyatun, U., Sah, R. W. A., & Darmayanti, R. (2023). Design Development of Audiovisual Teaching Materials for Canva Application-based Reading Skills in Early Childhood. *Caksana Journal: Early Childhood Education*, 4(1), 1–12.
- Wang, X., & Chang, B. (2020). The Impact of the Audience's Continuance Intention Towards the Vlog: Focusing on Intimacy, Media Synchronicity and Authenticity. *International Journal of Contents*.  
<https://search.ebscohost.com/login.aspx?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=17386764&AN=144360929&h=ZhJC8V%2FYpW3Rlu02WhEDgNOXMBUZSsdLNYbpmoVsrWc4il68j6RBRxeL%2BbO0AmoE5yHM4plv%2FyYED8wCLPX1sg%3D%3D&crl=c>
- Wicaksono, C. H. B. (2022). Pemanfaatan Media Youtube (Video Vlog) Sebagai Media Pembelajaran Dalam Meningkatkan Hasil Belajar Siswa Kelas Xi Pada Pelajaran Kewirausahaan. *Jurnal Ilmiah Pendidikan Ekonomi*.  
<http://journal.stkipnganjuk.ac.id/index.php/jipe/article/view/424>
- Winahyu, S. K., Boeriswati, E., Murtadho, F., Zabadi, F., Darmawati, B., Sidik, U., & ... (2023). Capturing The Unity Of Arguments In Indonesian Opinion Articles Based On Toulmin's Model. *Journal of Namibian Studies: History Politics Culture*, 34, 4999–5016.
- Winson, V. R. V., Arunkumar, V., & Rao, D. P. (2023). Exploring the Landscape of Teaching and Learning English as a Second Language in India. *Assyfa Learning Journal*, 2, 104–111.
- Wu, S. (2023). Application Research of Vlog in the Field of News Media. *Academic Journal of Management and Social Sciences*.  
<https://drpress.org/ojs/index.php/ajmss/article/view/10756>
- Wulan, W. M., Budiarti, E., Syoleha, I., Kastanja, J., Ariati, A., Hulukati, Z., Fitriani, F., & ... (2023). Pembuatan Sabun Cuci Tangan dalam Meningkatkan Kreatifitas dan Kemandirian Anak Usia Dini. *JIP-Jurnal Ilmiah Ilmu Pendidikan*, 6(5), 3176–3180.
- Yulianeta, Y., Hardini, T. I., Wirza, Y., Haerudin, D., & Amandangi, D. P. (2024). Bridging Cultures: Empowering BIPA Educators in Australia through Local Indonesian Wisdom Training. *Jurnal Inovasi Dan Pengembangan Hasil Pengabdian Masyarakat*, 1.
- Zaeriyah, S. (2022). Peningkatan Motivasi Belajar Menggunakan Project Based Learning (PjBL) melalui Media Vlog Materi Senam Aerobik. *Ideguru: Jurnal Karya Ilmiah Guru*. <https://jurnal-dikpora.jogjaprovo.go.id/index.php/jurnalideguru/article/view/291>