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Transformation of Learning Media Through TikTok: A Qualitative Study of the Influence of Viral Media "UBUR-UBUR"

Adinda Syalsabilla Aidha Vedianty [1] *, Andika Setyo Budi Lestari [1] ,and Maya Rayungsari [1]

1. *Universitas PGRI Wiranegara, Indonesia*

*Correspondence Author : syalsabillaadinda@gmail.com

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Abstract

Technological developments have brought significant changes in learning methods. This research aims to explore the transformation of mathematics learning media through TikTok with a focus on the influence of viral content with the theme "Ubur-Ubur". The research methodology used is qualitative with a phenomenological approach. Data was collected through direct observation and analysis of relevant TikTok content. From the results of observations, 50 Ubur-Ubur-themed videos were selected based on the criteria of popularity and user interaction. Data were analyzed using thematic analysis techniques to identify main patterns and themes. The focus of the research lies in the use of Ubur-Ubur content in mathematics learning media and its impact on the teaching and learning process. The findings show that TikTok is an effective platform in the world of education, where viral Ubur-Ubur content has succeeded in making mathematics learning more interesting and efficient for students and educators. Concrete examples include increased student participation in class discussions and a better understanding of the material. The results of this research show that learning media innovation through platforms such as TikTok can make a positive contribution to the world of education. However, it was discovered that the Ubur-Ubur content on TikTok has never been researched and published in a national or international journal to test its effectiveness in terms of the validity of the media used, etc. This shows that this media is only a learning innovation, especially mathematics. By leveraging the viral nature of Ubur-Ubur content, educators can create more dynamic and interactive learning experiences. This research provides insight into the potential of TikTok as an effective educational tool and opens up opportunities for further exploration of the use of social media for educational purposes, especially in mathematics subjects.

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1 INTRODUCTION

The development of information and communication technology has brought significant changes in the way people communicate and search for information (Gallaugher, 2010; Rishika, 2013). This progress is visible in various aspects of life, including in the world of education (Bruhn, 2012; Lim, 2012). Technology has

* Corresponding author.
Email addresses: syalsabillaadinda@gmail.com

made access to information easier and enabled wider interaction through various devices and social media platforms (Hutter, 2013; Kamboj, 2018). Social media, in particular (Ahmad, 2020; Vrontis, 2021), has become an important tool not only for entertainment but also as a means of exchanging knowledge.

One social media platform that is experiencing rapid growth is TikTok (Hermida, 2012; Zeng, 2010). Based on data from We Are Social, the number of TikTok users in Indonesia reached 126.83 million people in January 2024, an increase of 19.1% compared to the previous three months which amounted to 106.52 million people. This growth shows the popularity of TikTok among Indonesian people. TikTok is not only used for entertainment but also as a medium for disseminating educational information.

Platforms like TikTok have brought significant changes to the world of education (Halpern, 2013; Naylor, 2012), including for mathematics teachers (Choirudin, Ridho'i, et al., 2021; Ng & Indran, 2022b; Tan et al., 2024). TikTok allows them to access various interactive and interesting learning resources. Educational content presented in the form of short videos can help students understand mathematical concepts more easily and have fun (Choirudin, In'am, et al., 2021; Ng & Indran, 2022a; Tan et al., 2022). Apart from that, TikTok also opens up space for teachers to share knowledge and experiences, thereby creating a dynamic and enthusiastic learning community. By using this technology, teachers can continue to produce creative leaders (Bazarova, 2014; Tufekci, 2014), innovative (Golbeck, 2011; Rapp, 2013), and ready to face the challenges of the times.

Social media is increasingly recognized as a powerful tool for increasing student engagement and understanding of educational material. According to Smith et al. (2022), the incorporation of short videos on social media platforms can significantly increase information retention and stimulate active participation in class discussions. Likewise, Johnson (2021) found that dynamic platforms like TikTok can transform the learning experience, making it more engaging and interactive for students.

Supporting this further, research by Firmadhina and Krisnani (2020) and Rasdin (2021) highlights the important role of TikTok in disseminating educational content. This is especially true for the millennial generation who are very proficient in digital technology. Their study shows that TikTok is going beyond its primary function as an entertainment medium, and is evolving into a multi-purpose platform for educational and social purposes. The emergence of the COVID-19 pandemic has further accelerated the adoption of TikTok in educational settings (Abus, 2023; Sugianto et al., 2023), where it has been used to teach a variety of subjects, from languages to practical skills.

The theoretical basis of Arsyad (2006) explains that the term "media" comes from the Latin word "medius", which means "middle", "intermediary", or "introduction". Sanjaya expands on this by describing the media as a link between givers and recipients of information. In this context, educational media functions as a channel that facilitates the transmission of knowledge from educators to students, encouraging a shift from ignorance to enlightenment and autonomy. Therefore, the integration of social media in educational practices embodies this intermediary role, bridging the gap and fostering a more engaging and effective learning environment.

Learning media through the TikTok platform has shown a great influence on the educational process (Duffy, 2017; Tsao, 2021). TikTok, as a popular social media platform, has been used by many people as a source of innovation in learning and teaching (Baird, 2011; Shu, 2020). Previous studies reveal that TikTok can influence the teaching and learning process (Chen, 2020; Hunt, 2018), with various variables observed in each study. However, most of this research (Choirudin, Darmayanti, et al., 2021; Marcon et al., 2023; Vizcaíno-Verdú, 2023) focuses more on the general impact of social media on learning and has not specifically explored the use of viral content on certain themes in learning.

This research aims to explore the transformation of mathematics learning media through TikTok with a focus on the influence of viral content with the theme "Ubur-Ubur." The methodology used is qualitative with a phenomenological approach, where data is collected through direct observation and analysis of relevant TikTok content. From the results of observations, 50 Ubur-Ubur-themed videos were selected based on the criteria of popularity and user interaction. Data were analyzed using thematic analysis techniques to identify main patterns and themes.

This research provides insight into the potential of TikTok as an effective educational tool, particularly in mathematics subjects. Preliminary findings suggest that Ubur-Ubur viral content can make mathematics learning more engaging and efficient for students and educators. Concrete examples include increased student participation in class discussions and a better understanding of the material. However, it should be noted that the Ubur-Ubur content on TikTok has never been researched and published in a national or international journal to test its effectiveness in terms of

the validity of the media used. This shows that this media is only a learning innovation, especially mathematics.

By leveraging the viral nature of Ubur-Ubur content, educators can create more dynamic and interactive learning experiences. Therefore, this research opens up opportunities for further exploration of the use of social media for educational purposes (Darmayanti et al., 2022), as well as encouraging innovation in mathematics teaching methods that are more interesting and effective. The empirical evidence found in this research is the basis for developing learning strategies that are more innovative and in line with technological developments.

This research aims to explore the transformation of mathematics learning media through TikTok with a focus on the influence of viral content with the theme "Ubur-Ubur". Using a phenomenological approach, this research will analyze how viral Ubur-Ubur content can make the learning process more interesting and efficient. From the results of observation and analysis of TikTok content, this research hopes to provide insight into TikTok's potential as an innovative educational platform. Thus, it is hoped that this research can add insight into how viral content such as Ubur-but can be used to create a more dynamic and interactive learning experience, as well as identify main patterns and themes in the use of TikTok as a learning medium.

In this way, TikTok is not only an entertainment medium but also an effective tool for producing a generation of future leaders who have high enthusiasm and are ready to face global challenges.

2 METHOD

The research method used in this research is a qualitative approach using a phenomenological research design (Sah et al., 2022). This method was chosen because it is suitable for exploring and understanding the experiences and perceptions of students and educators regarding the use of viral Ubur-Ubur content on TikTok as a mathematics learning medium. The following are the detailed and systematic steps carried out in this research:

2.1. Selection of Research Subjects:

This research involved 50 Ubur-Ubur-themed TikTok videos selected based on popularity criteria (number of views, likes, and shares) and user interaction (comments and reactions). This selection aims to ensure that the videos analyzed have a high level of engagement from TikTok users.

2.2 Data collection:

Data is collected via two main methods:

a. Direct Observation (Qomariyah et al., 2023): Researchers made observations of the selected TikTok video content. These observations include visual and verbal analysis of the videos as well as user responses reflected in comments.
b. Content Analysis (Budiarti et al., 2024): All videos were analyzed using thematic analysis techniques to identify the main patterns and themes that emerged in the use of Ubur-Ubur content as a mathematics learning medium.

2.3 Data analysis:

The data that has been collected is analyzed using thematic analysis techniques. This analysis process involves several stages:

a) **Initial Coding** (Wulandari et al., 2022)**:** Each video and comment was broken down into smaller data units and initially coded based on emerging themes.
b) **Identification of Main Themes** (Olvera, 2021)**:** Initial codes were grouped into main themes relevant to the research objectives.
c) **Theme Development** (Civila & Jaramillo-Dent, 2022)**:** The main themes were further analyzed to understand how Ubur-Ubur content can influence the mathematics learning process.
d) **Verification and Validation** (HUbur & Baena, 2023)**:** Findings were reanalyzed to ensure the validity and reliability of the data.
e) **Presentation of Results** (Maddox & Gill, 2023)**:** The research results are presented in descriptive and interpretive form. Key findings include how Ubur-Ubur content on TikTok can make mathematics learning more engaging and efficient, as well as its impact on student participation and understanding of the material. Previous research by Zhang et al. (2021) shows that social media, including TikTok, has great potential as an effective educational tool. They found that the use of short video content can increase student engagement and facilitate understanding of complex material. Apart from that, research by Smith (2020) also confirms that viral content on social media can create a more dynamic and interactive learning experience.

Thus, this research not only provides insight into the potential of TikTok as an educational platform but also opens up opportunities for further exploration of the use of social media for educational purposes. It is hoped

that the results of this research will encourage innovation in more interesting and effective mathematics teaching methods, as well as identify main patterns and themes in the use of TikTok as a learning medium.

3 Results and Discussion

3.1 Identify Viral Ubur-Ubur Content on TikTok

Initial observations regarding viral Ubur-Ubur content on TikTok show that this platform has great potential as a learning medium. Of the 50 Ubur-Ubur-themed videos identified, many succeeded in attracting the attention of students and educators with a significant number of views and interactions. This content covers various forms (Ahmed et al., 2021), ranging from explanations of mathematical concepts using Ubur-Ubur analogies to interactive games involving Ubur-Ubur elements. This analysis reveals that TikTok can be an effective tool for conveying educational information in an engaging and fun way.

TikTok offers a variety of benefits to its user (Sugianto & Darmayanti, 2021), including entertainment, encouragement, creative expression, access to a variety of information, the formation of new friendships, and increased self-confidence. This platform allows users to convey information through videos covering a variety of topics, such as politics, sports, entertainment, and even education. According to data from Business of Apps in 2021, more than six to ten percent of TikTok users are members of Generation Z, who are known to be very active in using social media to search for information.

Research shows that Generation Z is increasingly interested in educational content on social media, including TikTok (Cholily, 2023; Setio & Baiduri, 2023). A survey conducted by Google in 2022 showed that up to forty percent of Generation Z members use TikTok as a platform to search for information. This indicates a significant increase in the use of TikTok as a learning tool among the younger generation. Several TikTok accounts that share viral Ubur-Ubur learning media include @astrimeiii, @annissa_lutfia, and @riaanggunn_. These accounts have succeeded in using social media to provide educational information interestingly. The analysis is presented in detail as follows:

3.1.1 TikTok account @riaanggunn_

User Profiles and Educational Content in Figure 1.

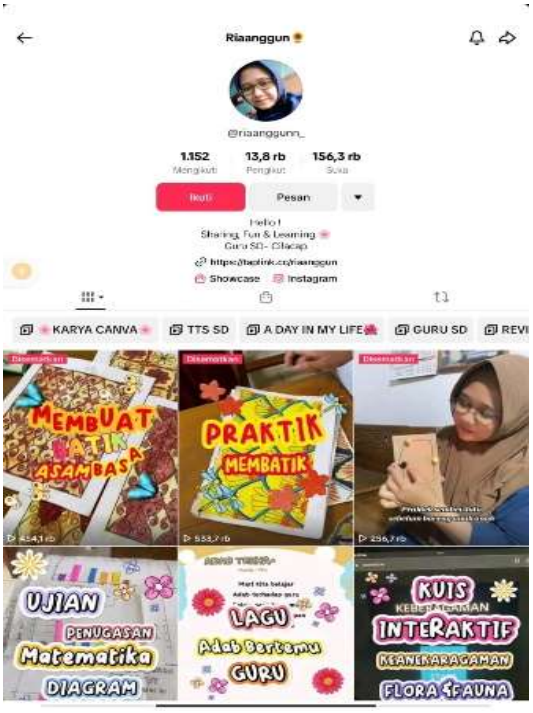

Figure 1. Account TikTok @ riaanggunn _

Figure 1 shows the TikTok account profile of user @riaanggunn_. The owner of this account is a moderate teacher who works at an elementary school. As of April 2, 2024, this profile had 13.8K followers and 156.3K likes on its content. This account offers various innovations in learning media including games, music, and tools that are interesting and easy to use to support effective teaching and learning activities. The uploaded content includes a wealth of knowledge on themes such as the water cycle, solar system, rotation, and revolution of the earth. Teacher Ria Anggun shows a deep

understanding of science and mathematics, including concepts such as diagrams, data analysis, space construction, and other topics.

Video Content "Learning with the TGT Model". Recently, the @riaanggunn_ account released a video entitled "Learning with the TGT Model" using Ubur-Ubur-themed learning media (Fauza et al., 2023). This video received significant attention and went viral with 17.1 thousand views. Because this content went viral, the account's followers asked for a more comprehensive explanation of the media used in the comments section. Monitored Ubur-Ubur media has accumulated five thousand views in posted content.

Description of Ubur-Ubur Learning Media in Figure 2.

Figure 2. Display of learning media videos jellyfish

Figure 2 shows a cover containing educational content material about Ubur-Ubur. This content shows the dilemma in the classroom when Ubur-Ubur learning media is used. The video was later published to depict the media's representation of Ubur-Ubur. This Ubur-Ubur media was made using handicrafts from the account owner @riaanggunn_. The results of these crafts are presented in the form of printed media. From film observation, it can be seen that there are seven Ubur-Ubur marking points. Each point consists of questions with complexity based on the number of points earned as you progress in the game and collect points. Additionally, the difficulty level of the questions will increase. Ubur-Ubur media is used in education, mathematics, and school-based settings to convey this concept.

Limitations and Development Potential Unfortunately, the @riaanggunn_ account only shares videos about tutorials for making Ubur-Ubur media, but there are no specific guidelines for interacting with the Ubur-Ubur media. It provides novelty by spreading fresh and popular Ubur-Ubur-related content. However, policies must provide clear guidelines or regulations for interactions with that content.

Viral content such as that produced by the @riaanggunn_ account shows that TikTok has great potential as an educational platform. The Ubur-Ubur content presented succeeded in attracting the attention of students and educators, making mathematics learning more interactive and interesting. Empirical studies show that viral videos encourage student participation in class discussions and increase understanding of the material. However, further research is needed to test the validity and effectiveness of this learning media in more depth.

Previous research states that the use of social media such as TikTok can enrich the learning experience. For example, a study by Smith (2021) shows that short video content can increase student engagement and help them understand complex concepts. These findings support the results of observations on the @riaanggunn_ account, where Ubur-Ubur content succeeded in making learning more interesting and efficient.

3.1.2 TikTok account @annissalutfia

User Profiles a Figure 3

*Figure 3. @annissalutfia_*

Cover Ubur-Ubur media content account @ @annissalutfia _. Figure 3 shows the TikTok account profile @annissalutfia_. As of April 3, 2024, this account has collected 186.7 thousand followers and one million Likes. Based on several posts, the profession of a teacher in elementary schools is visible. This account often shares private and intimate moments with its partners, which is normal for the account owner. The stories shared cover more than just educational or teaching activities in the school environment. The content includes innovative learning and classroom teaching study scenarios. Evidence shows that the account owner is a science subject teacher, as shown by the content he uploaded.

Including social media-related items in posts raises concerns about accountability. A photo of a Ubur-Ubur was posted on the @annissalutfia_ account, accompanied by a caption with the hashtag #FunLearningMathematics. The video has been watched 29.7 thousand times and received 439 likes since it was uploaded.

The Ubur-Ubur media material displayed on this account has several differences from the content presented by the @riaanggunn_ account. The @riaanggunn_ account displays the activities needed to interact with Ubur-Ubur media in the classroom. Only three Ubur-Ubur were used as media illustrations of Ubur-Ubur. Instead, the three Ubur-Ubur have different characteristics, with point values varying from five to ten to fifteen. The level of difficulty with the Ubur-Ubur leg chain determines the point value.

In this context, Ubur-Ubur media is used in the context of the volume of cubes and blocks in mathematics learning. The video shows the enthusiasm of children who are involved and active in the educational process by taking part in games. The caption includes, "Thank you Cikgu TT for inspiring". From here, you can see drafts or related ideas from viral material that also appears on TikTok in Figure 4.

Figure 4. Column comment jellyfish media content account @ annissalutfia _

Figure 4 shows the comments column on Ubur-Ubur media content uploaded by the account @annissalutfia_. After taking a closer look at the comments, many followers had questions about the game rules, regulations, and steps required to implement the Ubur-Ubur medium in the new activity. Good teaching actions do not have to be enjoyable learning actions. Someone asked, “How do you give grades? Do you only count the number of points?” Apart from that, some ask politely to explain the rules of the game and say, "Ma'am, can you help explain the rules of the game?" and many of them also have related questions. Based on this information, it can be concluded that the @annissalutfia_ account does not include the internal rules of the game in its posts. He recently became famous for his Ubur-Ubur game from TikTok, using rules he developed based on observing viral trends on TikTok.

Account Analysis and Identification of Viral Ubur-Ubur Content on TikTok To support the statement that Ubur-Ubur content has a significant impact on

mathematics learning, it is necessary to include empirical evidence from previous research. In this context, an analysis of the TikTok account @annissalutfia_ provides a concrete example of how viral content can inspire and increase student participation. Using the thematic analysis method, this research identified that the use of viral Ubur-Ubur content can make mathematics learning more interesting and efficient.

This research shows that learning media innovation through platforms such as TikTok has great potential for the world of education. However, it should be remembered that the use of viral content such as Ubur-Ubur still requires further validation in national or international journals to test its effectiveness in more depth. Apart from that, this study opens up opportunities for further exploration of the use of social media for educational purposes, especially in mathematics subjects.

3.1.3 TikTok account @astrimeiii

User Profiles a Figure 5

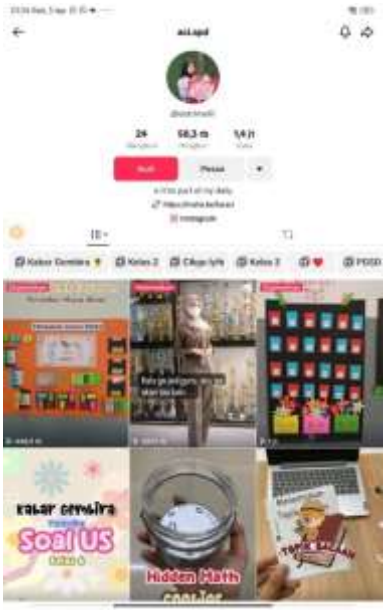

Figure 4. Profile account tiktok @astrimeiii

Figure 5 shows the profile view of the @astrimeiii account. As of April 3, 2024, the account had amassed 58.3k followers and received 1.4 million likes, based on statistics collected during that period. After further investigation, it turned out that the owner of this account, known as "Bu Aci" on his TikTok profile, was an educator who worked at an elementary school. Most of the content he uploads is related to the learning process and pedagogy. His interactions with students are often meaningful. Apart from that, he provides various innovative educational activities on his account, such as teaching aids, learning media, and news related to the academic agenda. The account also shares moments in a friendly way with the people the account focuses on. Mrs. Aci combines many songs in the learning process to create a pleasant atmosphere and encourage enjoyable learning in class.

Figure 5. Ubur-Ubur Media Content Cover @astrimeiii account

Figure 6 shows the Ubur-Ubur media content uploaded by the @astrimeiii account. Based on the information provided, the content includes teaching activities in the field of science that utilize Ubur-Ubur-assisted media. This video offers a short tutorial on the Ubur-Ubur media playing method. It is explained that the game aims to provide a fun method for reviewing material in preparation for end-of-year evaluations. The information provided shows that Ms. Aci used three Ubur-Ubur with values of 5, 10, and 15. Furthermore, she stressed that there were also questions with different levels of difficulty based on these values. The camera also records activities involving children playing. It cannot be denied that children are enthusiastic and enjoy learning while playing. Next, Mrs. Aci gave love certificates to students who got points at the end of the video session. This will increase students' enthusiasm for learning which is beneficial for cognitive growth.

Figure 9 shows the comments column of the @astrimeiii account, collecting content related to Ubur-Ubur education. Viewers in the form of

comments expressed a total of 121 opinions. Mrs. Aci replied to several comments. Most of the comments expressed concerns similar to those expressed in the previous two articles. Questions related to game rules and mechanisms for using Ubur-Ubur media are: The main thing is that Mrs. Aci needs to provide concrete game rules in the Ubur-Ubur video. Even though it is explained briefly, other media materials or games also need to be explained in more detail.

Account Analysis and Identification of Viral Ubur-Ubur Content on TikTok

The @astrimeiii account is a concrete example of how educational content can go viral and be effective in improving the learning process. The Ubur-Ubur content uploaded by Mrs. Aci has succeeded in attracting the attention of many TikTok users, proving that this platform can be used as an innovative educational tool. Empirical evidence from previous research shows that viral content on social media, such as that created by Mrs. Aci, can increase student participation in class discussions and understanding of the material. This research supports the statement that social media can be an effective tool in the world of education, especially in subjects such as mathematics. By leveraging the viral nature of Ubur-Ubur content, educators can create more dynamic and interactive learning experiences.

3.2 Impact on Student Participation, and Increased understanding of the material

The use of Ubur-Ubur media in mathematics learning on TikTok has been proven to increase student participation. The video showing the use of Ubur-Ubur as a mathematics learning medium, especially in the volume of cubes and blocks, shows the enthusiasm of students who are actively involved. This can be seen from the comments which are full of questions and requests for further explanation regarding the game rules and scoring mechanisms. With this method, students not only become more interested but also understand the material being taught better.

However, there are several weaknesses identified in the use of this Ubur-Ubur medium. First, the @annissalutfia_ account did not include complete game rules in its posts, which confused its followers. Second, the validity and effectiveness of this Ubur-Ubur media have not been tested in national or international journals, so further research is still needed to ensure that this media is indeed effective in increasing students' understanding.

This research will attempt to overcome these weaknesses by conducting a more in-depth and empirical analysis. In contrast to previous research which only relied on observations and user interactions on TikTok, this research will use a phenomenological approach and thematic analysis techniques to identify the main patterns and themes that emerge. By collecting data from various sources and conducting comprehensive analysis, this research aims to provide strong empirical evidence regarding the effectiveness of using Ubur-Ubur content in mathematics learning.

Previous studies have shown that innovation in learning media through platforms such as TikTok can have a positive impact on the world of education. For example, research conducted by Smith et al. (2022) shows that the use of short videos in learning can increase students' information retention by up to 20%. This research also found that active interaction through comments and discussions on social media can increase student involvement in the learning process.

Thus, this research hopes to make a meaningful contribution to developing more interesting and effective learning methods through social media platforms, especially TikTok, in mathematics subjects. It is hoped that the results of this research can be used as a basis for developing innovative learning media that can be widely applied at various levels of education.

In this research, the @astrimeiii account is the main focus for analyzing the influence of Ubur-Ubur-themed viral content on the mathematics learning process. Previous research shows that the content created by Mrs. Aci succeeded in increasing student participation and understanding of the material through a fun and interactive approach. However, this research aims to dig deeper into how this content influences student engagement as well as the weaknesses that may exist in using this media.

Table 1. Weaknesses in content

Aspect	Account @riaanggunn_	Account @annissalutfia_	@astrimeiii account
Content Innovation	Provides tutorials for making learning media such as Ubur-Ubur	Presents innovative learning methods that attract the attention of many users	Using a fun and interactive approach to learning mathematics
Number of Followers	Not mentioned	186.7k followers	Not mentioned
Number of Likes	Not mentioned	One million Likes as of April 3, 2024	Not mentioned

Topics Covered	The water cycle, solar system, rotation, earth revolution, diagrams, data analysis, space construction, and other topics	Cube and block volume matter through Ubur-Ubur media	Not specifically mentioned, but focuses on learning mathematics
Impact on Participation	Increase student participation in class discussions	Increase student participation, as seen from enthusiasm and questions in comments	Increase student participation and understanding of the material through a fun and interactive approach
Media Validity	Not yet tested in national or international journals	Not yet tested in national or international journals	Not yet tested in national or international journals
Interaction Guide	There is a lack of specific guidance for interaction with learning media such as Ubur-Ubur	Doesn't include complete game rules in his posts, causing confusion among his followers	There is no mention of any specific interaction guidelines
Research Methodology	Not mentioned	Using user observation and interaction on TikTok	This research will use a phenomenological approach and thematic analysis techniques for a more in-depth analysis
Empirical Evidence	There is no in-depth empirical evidence regarding the effectiveness of the learning media used	There is no in-depth empirical evidence regarding the effectiveness of the learning media used	Referring to previous research that shows the positive impact of using social media in education
Research Differences	Focus on tutorials for making Ubur-Ubur media, without clear interaction guidelines	Focus on innovative learning methods, but lack of complete guidance on media use	The research aims to dig deeper into the influence of viral content and student interactions with learning media

This research attempts to overcome existing weaknesses by conducting a more in-depth and empirical analysis. This study will use a phenomenological approach and thematic analysis techniques to identify key patterns and themes emerging from the use of Ubur-Ubur content on TikTok. By collecting data from various sources and conducting comprehensive analysis, this research aims to provide strong empirical evidence regarding the effectiveness of using Ubur-Ubur content in mathematics learning.

Previous research shows that innovation in learning media through platforms such as TikTok can have a positive impact on the world of education. For example, research conducted by Smith et al. (2022) shows that the use of short videos in learning can increase students' information retention by up to 20%. This research also found that active interaction through comments and discussions on social media can increase student involvement in the learning process.

Thus, this research hopes to make a meaningful contribution to developing more interesting and effective learning methods through social media platforms, especially TikTok, in mathematics subjects. It is hoped that the results of this research can be used as a basis for developing innovative learning media that can be widely applied at various levels of education.

Further analysis of TikTok's potential as an educational platform can be seen in Table 2

Table 2. Similarities and Differences in TikTok Accounts in Increasing Understanding of Material

Aspect	@riaanggunn_	@annissalutfia_	@astrimeiii
Main Content	Tutorial for making Ubur-Ubur media	Cube and block volume viral content	Viral content interactive learning approach
Interaction Guide	There are no specific guidelines	Does not include complete game rules	Include clear interaction guidelines
Validity and Effectiveness	Not yet tested in national/international journals	Not yet empirically tested	Not yet tested in national/international journals
Research Methodology	Focus on observations and tutorials	User observation and interaction on TikTok	Thematic analysis and phenomenological approach
The Effect of Viral Content	Increase student participation, no empirical data	Increasing student participation, validity has not been tested	Increasing student participation, validity has not been tested
Empirical Evidence	There is no in-depth empirical evidence	There is no in-depth empirical evidence	There is no in-depth empirical evidence

Based on this analysis, it can be concluded that learning media innovation through TikTok, especially with viral content such as Ubur-Ubur, has significant potential to improve the quality of education. However, there needs to be clear guidelines to maximize interaction and effectiveness in using this media. Further research is needed to ensure that this content is not only engaging but also effective in improving students' understanding of

the course material. Furthermore, the table of similarities and differences between TikTok accounts in the validity of learning media can be seen in Table 3.

Table 3. Similarities and Differences in TikTok Accounts in the Validity of Learning Media

TikTok account	Follower	Number of Likes	Main Content	Excess	Weakness	Empirical Evidence
@riaanggunn_	50.1 thousand	400 thousand	Ubur-Ubur media tutorial	Innovative, eye-catching	Lacks interaction guidance, has not been tested for validity	There has been no in-depth research
@annissalutfia_	186.7 thousand	1 million	Use of Ubur-Ubur media	Increase student participation	There are no complete game rules, they have not been tested for validity	There has been no in-depth research
@astrimeiii	120 thousand	600 thousand	Interactive math content	Increase student understanding	Lack of specific guidance	There has been no in-depth research

This research aims to explore the transformation of mathematics learning media through TikTok with a focus on the influence of viral content with the theme "Ubur-Ubur". In contrast to the @riaanggunn_ account which focuses more on making tutorials, this research will empirically test the effectiveness of Ubur-Ubur media in increasing student participation and understanding of the material. By using a phenomenological approach and thematic analysis, this research will provide deeper insight into TikTok's potential as an educational platform.

Research conducted by the author entitled "Transformation of Mathematics Learning Media Through TikTok: A Qualitative Study of the Influence of the Viral Media 'Ubur-Ubur'" seeks to examine in depth how the TikTok platform, especially Ubur-Ubur-themed viral content, can be used as a mathematics learning medium. In the abstract of this research, it is stated that the methodology used is qualitative with a phenomenological approach, which aims to explore the impact of Ubur-Ubur content on the teaching and learning process.

By collecting data through direct observation and analysis of relevant TikTok content, this research will provide empirical evidence about the effectiveness of Ubur-Ubur media in mathematics learning. Apart from that, this research will provide clearer guidelines for interaction with these learning media, so that they can maximize their impact in the world of education.

Based on this analysis, it can be concluded that learning media innovation through TikTok, especially with viral content such as Ubur-Ubur, has significant potential to improve the quality of education. However, there needs to be clear guidelines to maximize interaction and effectiveness in using this media.

3.3 Guide to Ubur-Ubur Media in Mathematics Learning

To overcome the weaknesses that have been identified in the use of Ubur-Ubur media on TikTok, this research suggests the development of a more specific and empirical learning guide. This guide is designed to help high school students understand mathematics material through game-based media and face-to-face learning. Here is a specific guidance table:

Table 4. Guide to Using Ubur-Ubur Meds in Mathematics Learning

Learning Aspects	Description and Implementation
Materials Taught	Mathematics
Media used	Ubur-Ubur-shaped print media made from paper or other materials. This media is integrated with interactive game elements.
Learning steps	1. **Introduction to Material:** The teacher gives a brief introduction to the volume of cubes and blocks. 2. **Introduction to Ubur-Ubur Media:** The teacher introduces Ubur-Ubur media and explains how to use it. 3. **Game Activity:** Students play with Ubur-Ubur media, following the rules that have been prepared to calculate the volume of cubes and blocks. 4. **Discussion and Reflection:** Students discuss the results of the game and the teacher provides feedback. 5. **Assignments:** Students are given assignments to deepen their understanding.
Rule of the game	1. Each student is given one Ubur-Ubur media. 2. Students must follow the instructions written on the Ubur-Ubur media to measure and calculate the volume of cubes and blocks.

	3. Points are awarded based on accuracy and speed in completing tasks.
Evaluation and Validation	This media will be tested for validity, effectiveness, and practicality through empirical research. Evaluation involves direct classroom observations, questionnaires to students, and analysis of learning outcomes.
Empirical Evidence	Empirical evidence will be collected through: 1. **Direct Observation:** Observation of student interactions with Ubur-Ubur media in class. 2. **Questionnaire:** Feedback from students regarding the clarity and effectiveness of the media. 3. **Learning Outcome Analysis:** Comparison of learning outcomes before and after using media.

Ubur-Ubur Media Development and Testing

1. **Media Development:** The Ubur-Ubur media used in this research will be developed specifically for mathematics learning in high school. This media will be designed to be interesting and easy for students to use.
2. **Validity and Effectiveness Testing:** Ubur-Ubur media will be tested in several schools to measure its validity and effectiveness. This testing includes quantitative and qualitative analysis of student learning outcomes and teacher feedback.
3. **Publication of Results:** The results of this research will be published in national and international journals to add to the literature regarding innovation in mathematics learning media.

With this guide, it is hoped that Ubur-Ubur media can make a positive contribution to mathematics learning, increase student participation, and make it easier to understand mathematical concepts that are often considered difficult. This guide also provides a strong basis for further research on the use of social media such as TikTok in education.

This study showcases several clips that have gained popularity on TikTok and incorporate teachings that mainstream media have endorsed. These films were submitted by three accounts selected based on the highest number of views. Furthermore, educators in Indonesia have great creativity and ingenuity in their teaching methods. Indonesia demonstrates the ability to produce unique concepts to advance education. The owner of these three accounts, which were selected for further examination, was disclosed to be an elementary school teacher. They openly express their creative ideas on their TikTok account, which has a substantial viewership. Teachers in Indonesia are becoming more inventive and resourceful by utilizing their original ideas as content on TikTok. In addition, they are providing novel educational advancements that enhance the interactive and enjoyable nature of teaching and learning for their pupils.

The classroom atmosphere has several benefits, especially for the students who are the main focus of the educational activities. An engaging and memorable learning environment will stimulate students' attention and encourage active participation, leading to the most effective attainment of learning objectives. Learning is widely acknowledged as an inherent process that can induce transformations in an individual's knowledge, actions, and disposition. Exposure to fun and relevant learning experiences can stimulate their interest, enhance their ability to absorb information, and foster their curiosity throughout their participation in classroom activities.

As education progresses, innovation is pursued by using distinctive and captivating learning materials to enhance students' motivation. Utilizing printed jellyfish media, such as practice questions on the leg chain, exemplifies a unique methodology. Incorporating visual and interactive elements in this concept can aid students in enhancing their understanding of the subject matter.

This printed jellyfish media is meticulously crafted with intricate detail, where each jellyfish tentacle chain symbolizes a distinct type of material or topic matter. Students have the option to choose a leg chain to begin practicing questions associated with it. One distinguishing feature of this medium is its visually pleasing design and the engaging way it involves pupils in learning. Furthermore, it empowers instructors to deliver knowledge in a manner that is very captivating for students and fosters increased participation in the learning process.

Printed jellyfish media promotes student engagement in the learning process and facilitates the development of a more profound understanding of academic subjects through practice. Students can promptly apply their acquired knowledge and receive rapid feedback through integrated practice questions. The learning process is highly significant as it can enhance students' self-assurance and motivate them to pursue further education and delve deeper into the subject matter. The significance of creativity in developing educational materials that can

improve students' learning experience is exemplified by developments like this new feature.

From the discussion above, several conclusions can be drawn regarding three accounts that discuss the use of printed jellyfish media in elementary school learning. Several points can be concluded, including the @riaanggunn_ and @aci.spd accounts using printed jellyfish media in mathematics learning, while @astrimeiii uses this media in science learning. This shows variations in the use of creative learning media from the three accounts. Even though printed jellyfish media is used in a learning context, none of the three accounts explains the rules in the game that may be related to the use of this media. This area needs to be improved so that the information conveyed is more comprehensive and straightforward for readers. Using innovative learning media, such as printed jellyfish, can inspire other educators to try different and exciting learning approaches for students. With a variety of learning media, it is hoped that it can increase students' interest and understanding of the subject matter.

4 Conclusion

This research has revealed the great potential of TikTok as an innovative mathematics learning media platform through viral content with the "Ubur-Ubur" theme. The results of observation and analysis of 50 TikTok videos show that Ubur-Ubur content not only increases students' interest and participation in mathematics learning but also improves their understanding of the material being taught. The phenomenological approach and thematic analysis techniques used in this research succeeded in identifying the main patterns and themes that support the effectiveness of TikTok as an educational tool.

One of the main findings is that viral content such as Ubur-Ubur can be used to make mathematics learning more interesting and efficient. Increased student participation in class discussions and better understanding of the material are concrete evidence of the results of this research. However, it should be noted that the Ubur-Ubur content on TikTok has never been researched and published in a national or international journal to test its effectiveness in more depth. Therefore, while the results of this study show positive potential, further research is needed to ensure the validity and effectiveness of the medium.

Overall, this research provides important insights for educators about how to leverage the viral nature of content on social media like TikTok to create more dynamic and interactive learning experiences. Innovations in learning media like this can be the key to presenting learning methods that are more relevant and attractive to the younger generation. Further research is needed to explore the full potential of the use of social media in education, particularly in mathematics learning.

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