

The Use of The Lucidspark Application in Learning Argumentative Text in Senior High School

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Abstract

Purpose: This study aims to describe how the Lucidspark application is applied in learning argumentative texts at the high school level, focusing on its role as an interactive medium to support writing, collaboration, and critical discussion.

Methodology: Using a qualitative design, data were gathered from students, teachers, and the learning process through observations, questionnaires, interviews, and review of relevant literature. The raw data—comprising words, sentences, and written paragraphs detailing the Lucidspark implementation steps—were processed through a five-stage analysis: preparing data, full data reading, data coding, theme development, and results presentation. Data validity was ensured via triangulation across multiple sources and methods.

Results: Implementation of Lucidspark in argumentative-text lessons unfolded in clear preparation and execution phases. Teachers and students reported that Lucidspark effectively facilitated group discussions and mind-mapping activities. However, unstable internet connectivity and occasional student rule violations posed challenges. Quantitatively, 93.1% of students achieved scores above the minimum competency standard, while 6.9% did not. Regarding user satisfaction, 21% of students were very satisfied, 45% satisfied, and 34% fairly satisfied with Lucidspark's integration into their learning.

Applications/Originality/Value: By demonstrating Lucidspark's capacity to foster interactive, technology-based learning, this study offers a practical model for integrating digital collaboration tools into language curricula. It highlights how real-time mapping and discussion features can enhance argumentative writing skills, providing educators with actionable insights for adopting similar ed-tech solutions to enrich student engagement and learning outcomes.

Introduction

Learning Indonesian requires innovations that are able to support the learning process of students. Language skills are essential for the intellectual, social, and emotional development of learners. Arsyudin et al. (2023) explained that the success of a learning is also influenced by the role and quality of the teacher in demonstrating the classroom experience. Students' learning experience can be enriched by utilizing relevant and effective learning media. Therefore, media in learning is urgently needed.

Students are expected to be able to express their feelings, ideas, and ideas through Indonesian language skills. One of the Indonesian materials that must be mastered by students is argumentation texts. Through learning argumentative texts, students can convey ideas related to an issue (Wolfe et al., 2009). Learning argumentative texts also supports students to prepare for the challenges of the 21st century through strengthening critical thinking skills (Sahin, 2009; Wingate, 2012).

The needs of the times require the younger generation to be able to express arguments critically and carefully. However, previous studies have shown that students at the high school level in Indonesia have difficulty writing their arguments (Nakrowi et al., 2024). Nakrowi et al. (2024) research revealed that strengthening literacy, role modeling, and involving critical thinking are very important in learning to write arguments. Tarigan & Efrizah (2022) also explained that the quality of argumentative text writing skills among students is still relatively low. Therefore, it is better to train argumentation skills from the high school level. However, often the learning process is hampered due to students' low interest in learning.

The difficulties experienced by students in Indonesia in writing argumentative texts are influenced by many factors, one of which is the unattractive learning atmosphere. Monotonous learning will cause boredom and have an impact on the understanding of the material. The lack of interest of students in learning can be caused by monotonous learning media. The learning of argumentation texts must be more optimized because the ability to argue is needed. For this reason, technology-based learning media is needed to create a fun learning atmosphere and involve collaboration between teachers and students.

Media plays a role as a tool used by educators in conveying the content of learning materials to students, both in the form of visual, audio, and audiovisual (Purwandari & Hindun, 2023). Media has an important role in the learning process and the right choice of media determines the effectiveness of learning (Arsyudin et al., 2023). When the media used is

interesting to students, there is little possibility of distortion in the learning process (Amanda et al., 2022). Learning media also makes learning more varied, not just verbal communication by teachers so that students are not bored (Ekaningtias et al., 2023).

The use of technology-based learning media has many advantages and is relevant to the times. According to Masykuri & Basuki (2022), The sophistication of technology can facilitate various human activities. The proof is that technological developments are now able to facilitate students to learn according to their wishes, allowing students to become creative problem solvers and effective collaborators (Panggabean & Misykah, 2022).

One of the technology-based learning media that can be used in learning argumentative texts is the Lucidspark application. The application is in the form of a digital whiteboard that can be used by teachers to collaborate and interact with students. This application allows teachers to innovate to create interactive materials using the tools that have been provided. Through the Lucidspark application, students can collaborate using text, sticky notes, images, and various features in it. Thus, the Lucidspark application can support the learning process of argumentative texts as an interactive medium for students at the high school level.

Research on learning argumentative texts has been carried out a lot, including research by Angin (2021), Nita & Naini (2022), Nakrowi et al. (2024), Tarigan & Efrizah (2022), and Hasibuan & Tarigan (2022). Based on the studies that have been reviewed as relevant literature sources, it is known that there have not been many studies on the use of Lucidspark as a learning medium. In addition, the Lucidspark application has been used as a medium in research. Research by Gunawan et al. (2023) utilizing the Lucidspark application as a medium for brainstorming to find a solution to a problem. Research by Frank et al. (2023) stated that the Lucidspark application can act as a medium to map processes, share screens in real time, and enable easy diagramming. Hand et al. (2022) also explained that Lucidspark is a whiteboard space that is infinite. The statement regarding the use of Lucidspark media shows that Lucidspark can be applied in learning as a space for discussion, interaction, and collaboration.

Writing argumentative texts requires a discussion space that can maximize students in understanding the material, finding ideas, and compiling texts. In connection with the increasing needs in education and the demands of technology utilization, digital-based media is needed to support the learning of argumentative texts. Therefore, this study aims to describe (1) the preparation for the application of the Lucidspark application in learning argumentative texts at the high school level, (2) the implementation of the Lucidspark application, and (3) the impact of the application of the Lucidspark application in learning.

Method

This type of research is qualitative research. Latifah (2023) explained that the qualitative method is a research method used to understand phenomena through the process of observation and interpretation of the data that has been obtained. Qualitative research emphasizes on combined data obtained in the field in the form of words, phrases, clauses, sentences, and discourses collected by purposive sampling and using scientific procedures systematically (Rohmadi & Nasucha, 2017). Qualitative research is applied in this study to comprehensively examine and produce descriptive and interpretive findings.

This study contains a case study on the stages of implementing the Lucidspark application in learning argumentative texts at SMA Negeri 1 Karanganyar, Klaten, Central Java. The data collected is in the form of words, sentences, and written paragraphs regarding the steps to apply the Lucidspark application in learning argumentative texts. Data is sourced from students, teachers, and the learning process. Data collection was carried out using observation techniques, questionnaires, and interviews. Observation was made to observe the application of the Lucidspark application in learning argumentative texts in high school. Researchers observe the learning process and become active participants in the class. Questionnaires were distributed to students to get information about students' responses to the learning. The interview technique was used to explore information in the form of responses and suggestions from the tutor regarding the use of the Lucidspark application in learning argumentative texts.

This researcher uses literature sources in the form of previous research results and relevant literature. The data that has been collected is then analyzed and elaborated in more depth so that conclusions can be drawn. Based on Creswell's theory and Creswell's in Fiantika et al. (2022), Data analysis includes the following stages: (1) preparing the data, (2) reading all the data, (3) encrypting the data, (4) creating descriptions and themes, and (5) presenting descriptions and topics. The identification of themes and patterns in the data is carried out by analyzing the data obtained and then dividing it into several categories, namely preparation, implementation, and learning impact on students. The validity test of the data in this study was carried out by the triangulation method or multi-method approach. The triangulation method used is triangulation of sources and techniques.

Results and Discussion

The purpose of this study is to describe the application of Lucidspark media in learning argumentative texts. The following is a discussion about the application of the Lucidspark application in learning argumentative texts in high school.

The presentation included (1) preparation for the implementation of the Lucidspark application, (2) implementation of the implementation of the Lucidspark application in learning argumentative texts, and (3) the impact of the implementation of the Lucidspark application in learning.

Preparation for The Implementation of Lucidspark Application in Argumentative Text Learning

Learning preparation includes the preparation of teaching modules, teaching materials, worksheets, assessments, and learning media. The focus of this research is the preparation of learning media. Media preparation needs to be done so that the selected media is ready to use. Effective use of learning media must consider the context, learning objectives, student needs, and resource availability (Rahmadhani et al., 2023). The media must be adapted to the needs of learning and supported by an attractive visual display. Therefore, learning media must be prepared first before being used by teachers and students.

Lucidspark is an interactive platform in the form of a whiteboard that supports collaborative activities between teachers and students. Lucidspark media is one of the main products developed by Lucid Software. Research by Ponomarenko et al. (2023) shows that Lucidspark is an effective virtual whiteboard to utilize in working on tasks, working on projects, collaborating, and discussing projects. Teachers and students can collaborate on Lucidspark media in various ways such as drawing, adding notes, inserting an image, creating diagrams, mind maps, utilizing available templates, and so on.

There are tools in Lucidspark media that support collaboration such as templates, document imports, text, sticky notes, shapes, organizers, pens, erasers, highlighters, and many more. Through these tools, students can exchange ideas about their ideas, visualize concepts, and work together on a project. The interactive whiteboard media provides space for students to be directly involved in problem solving, support collaborative learning, and support learning interests (Bourbour & Björklund, 2014).

In the Indonesian curriculum, Lucidspark can be used for group discussions, interactive learning, developing critical thinking, and improving problem-solving skills. Teachers can take advantage of the free plan of Lucidspark boards and have interesting templates and features to design learning. Lucidspark provides education-themed templates, feedback facilities, real-time collaboration, and concept mapping facilities. The infinite Lucidspark board allows teachers to include many useful components in learning. In this study, the preparation for the application of Lucidspark media in learning includes the following stages.

Lucidspark Platform Rules and Link Creation

The use of Lucidspark media requires strict rules so that it is not abused by students. The use of such platforms simultaneously allows students to abuse the media. Therefore, teachers need to provide rules for the use of Lucidspark media. After creating the rules, teachers should include a link or QR code so that students can access the Lucidspark board from the beginning of learning. The inclusion of this link or QR code can be done after the teacher has finished designing the Lucidspark board.

Lucidspark Board Design for Learning Introduction

In the introductory part of the lesson, teachers can maximize their creativity to design a Lucidspark board. Teachers can make reflections on the material at the previous meeting, ask students' moods, ice breaking, trigger questions, and so on according to the teacher's creativity and students' learning needs.

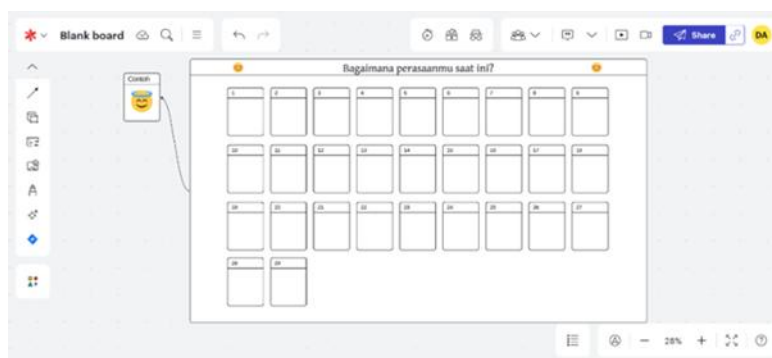


Figure 1. Example of an introductory activity with Lucidspark media.

Figure 1 is an example of a preliminary learning activity using a Lucidspark board. Students will be directed to express their feelings in empty boxes. Students will be directed to express their feelings in empty boxes. Students can provide emojis, writing, pictures, and sticky notes to fill in these columns.

Lucidspark Board Design for Learning Core

In the core part, teachers can include learning materials. The material chosen in this study is to write argumentative texts. Teachers can directly compile materials by utilizing templates and features on the Lucidspark platform. In addition, teachers can also create materials first and then put them on the Lucidspark board in the form of images. In addition, teachers can design interactive boards to discuss with students.

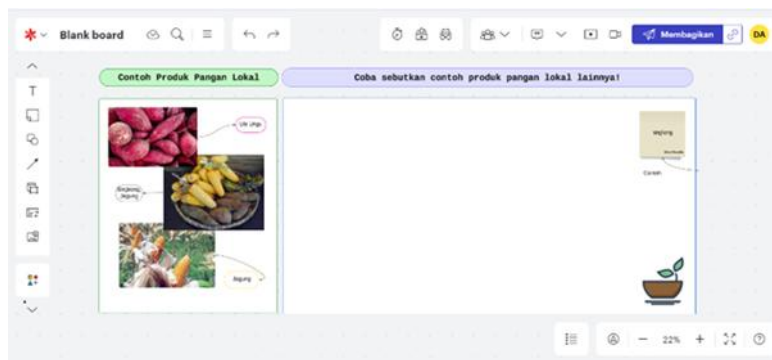


Figure 2. Examples of interactive discussion boards in Lucidspark.

Figure 2 shows an example of an interactive whiteboard in Lucidspark media. Teachers can be creative and innovate using the features in Lucidspark to design their own interactive whiteboards. Through the preparation of an interactive whiteboard, teachers can invite students to play an active role in learning through Lucidspark media

Lucidspark Board Design for Learning Closures

In the closing part, teachers can compile learning conclusions, reflect on the learning that has been carried out, ask students' responses, and so on according to learning needs.

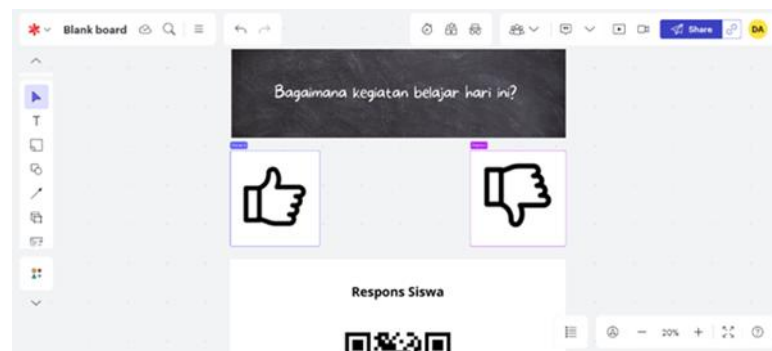


Figure 3. Examples of learning reflections in Lucidspark boards.

Figure 3 is an example of a learning reflection that can be created on a Lucid-spark board. Students will be directed to use the Add Reaction feature on the images provided so that they can give their honest opinions about learning. In addition, there is also a QR code to fill out a form regarding students' responses to learning. This form is necessary because not all students can express their re-sponses openly through the Add Reaction feature. Students can also express their opinions more fully with the form.

Based on this explanation, it can be concluded that the preparation of Lucid-spark media includes the creation of rules and links, as well as the design of boards for the introduction, core, and closing activities of learning. This stage requires teachers' skills in preparing boards that are creative and relevant to the learning needs of students. Teachers are indeed required to be proficient in using technology in order to facilitate interaction spaces for students (Mahyudi, 2023). Firmadani (2020) stated that technological developments require teachers to be able to develop various kinds of learning media. Permana et al. (2024) explaining the Aligned Opinion that in the use of learning media, teachers are required to have digital skills and master technology. Moreover, Maisarah et al. (2022) also explained that one of the urgency of developing digital-based media in Indone-sian learning is that teachers must be able to innovate.

Implementation of the Application of Lucidspark Media in Learning Argumentation Texts

This research focuses on learning to write argumentative texts. Writing skills are indispensable in daily life as well as the interests of certain fields. Students must be able to express themselves through writing by paying attention to the diction, spelling, and punctuation used. Therefore, writing argumentative texts is important to learn so that students can write their arguments properly and correctly. Writing a text requires a critical thinking process and mind mapping so that students need to be facilitated by supportive media. Lucidspark can be an alternative technology-based learning medium that facilitates the process of discussing and mapping thoughts. In this study, researchers play an active role in learning practices as teachers. Based on the learning practices that have been carried out, the following are the stages of learning with the use of Lucidspark media.

Lucidspark Platform Rules and Links Presentation

The teacher broadcasts the Lucidspark display through a projector screen that contains the rules for using media. The teacher explained about the rules so that students do not abuse Lucidspark media. After that, teachers also broadcast QR codes or Lucidspark platform links so that students can immediately access the Lucidspark board. This activity is carried out at the beginning of learning because students will use the Lucidspark board from start to finish, not just in the core of learning.

Application of Lucidspark Media in Learning Introductory Activities

When all students have entered the Lucidspark platform, teachers carry out preliminary activities which include greetings, prayers, attendance, motivational delivery, material reflection, presentation of learning objectives, learning mechanisms, and triggering questions. Teachers also test their readiness to learn by asking students how they feel through an interactive board that has been created in Lucidspark. Based on the results of the implementation of the Lucidspark application in the introduction to learning, it is known that students experience different feelings before starting learning. In this activity, students also began to explore using the features of the Lucidspark board.

Application of Lucidspark Media in Core Learning Activities

In the core learning stage, students learn the material of writing argumentative texts through the Lucidspark board. The material shown includes brief understanding, text structure, paragraph development patterns, cohesion and coherence, steps to compose argumentative texts, and examples of argumentative texts. The examples provided are examples on the Lucidspark board and examples in printed form so that students can observe the text directly. After studying the material, students are directed to do a question and answer session through the Lucidspark board.



Figure 4. Implementation of interactive discussion boards in Lucidspark.

Figure 4 shows the implementation of an interactive discussion board in a Lucidspark board. Students answered questions by utilizing the sticky notes feature in Lucidspark. After asking questions, students are asked to form a group and have a group discussion to compile an argumentative text. The results of student discussions can be recorded on the Lucidspark board. Teachers can give feedback directly by using the Add Reaction feature. This activity makes it easier for teachers to find out the progress of students' work without using paper.

After discussion, students write argumentative texts on worksheets until a pre-determined deadline. When students finish working on the argumentative text, worksheets are collected to the teacher to be given feedback and input. After that, the group representative presented the results of their work to the front of the class using a Lucidspark board. Students convey the content of their arguments with the help of a Lucidspark board to make it easier for other students who listen to the presentation. Using Lucidspark helps students make simple presentations with the available features.

Application of Lucidspark Media in Closing Activity of Learning

Students and teachers evaluate the results of their work, conclude learning, and reflect on learning. Learning reflection can be done by adding reactions with the Add Reaction feature or filling out a Google Form. Reflection QR codes have been listed in Lucidspark boards. The learning activity ended with prayers and greetings.

The results of the application of the Lucidspark platform in learning show that Lucidspark can be used as an interactive discussion space for students. Discussion activities are very important to optimize the interaction between teachers and students and the interaction of fellow students. In addition, Lucidspark also makes it easier for students to map their ideas and ideas in writing argumentative texts. The use of interactive learning media is able to enrich the learning experience of students (Melati et al., 2023). Lucidspark can be a technology-based innovation in learning. Technology has an urgency in advancing the world of education and changing systems that are no longer relevant (Silmi & Hamid, 2023). Lucidspark is a digital-based media that is in line with learning in the modern era. Digital media can display more engaging multimedia content such as videos, animations, and interactive simulations (Rahmadhani et al., 2023).

The Impact of The Implementation of The Lucidspark Application in Learning

The application of the Lucidspark in learning argumentative texts shows the advantages of the application. The advantages of Lucidspark are a variety of features, can be used by many people at once, a modern look, and the functions are relevant to learning. Lucidspark can be accessed and used simultaneously, whether through a computer device, laptop, or mobile phone. This is in line with the statement by Frank et al. (2023) that Lucidspark is a collaborative online software that allows collaboration in teamwork because the screen can be shared in real-time so it is suitable for discussion. This application can also involve students in both offline and online learning. In addition, the use of technology-based learning media is now a necessity in the educational process. This approach allows access to a variety of learning resources and learning is more adaptive to individual needs (Permana et al., 2024). Media also has an attention function so that it allows students to pay attention to the material to be taught (Zahwa & Syafi'i, 2022).

The application of the Lucidspark application in learning also shows that there are obstacles. These obstacles are in the form of an internet network that is sometimes unstable so that the process of operating media is slightly hampered. Research by Hadana et al. (2023) also shows that the implementation of Canva's digital media in the form of a microsite has weaknesses when used, namely an unstable network that hinders students from accessing videos on the microsite. In addition to obstacles in the form of internet connections, there are still students who abuse Lucidspark boards, namely scribbling on boards so that they interfere with the comfort of other students. Therefore, the discipline given by teachers must be stricter.

The learning outcomes of students in this study were assessed from the argumentative texts that had been written in groups. The quality of argumentation texts was assessed from (1) the suitability of the content with the theme and title, (2) valid data that supports the argumentative text, (3) cohesive and coherent paragraphs, (4) paragraph development patterns, and (5) spelling and punctuation. Based on the results of the assessment of the argumentative text that has been made, it is known that there are 93.1% of students who have obtained a score above the minimum competency standards and 6.9% of students who have not achieved that. In addition, the level of student satisfaction obtained from the questionnaire also showed positive results.



Figure 5. Student satisfaction diagram.

The results of the questionnaire showed that as many as 45% of students were satisfied with the application of Lucidspark in learning, 21% were very satisfied, and the remaining 34% felt quite satisfied. According to Virto & López (2020), the factor that affects students' interest in using virtual whiteboards is playfulness, which is a feeling of pleasure that is finally able to attract someone to wear it. Therefore, the preparation of Lucidspark content can increase the enthusiasm of students. This digital service helps students understand the content of the material more optimally. Research by Ponomarenko et al. (2023) stated that 96% of students rated Lucidspark as one of the most effective digital service tools.

Interactive learning media such as Lucidspark are indispensable in learning Indonesian in the modern era. Research by Afifah et al. (2022) shows that the interactive learning media developed is very suitable to be applied in learning

Indonesian fairy tale materials at the elementary school level. Research by Per-dana et al. (2020) shows that integrating ICT in Indonesian learning can add positive energy to students which supports students' motivation, involvement, activeness, and academic success. Research by Ayu & Amelia (2020) It also shows that the use of technology for learning is more effective and efficient with the existence of e-learning. The opinions that have been expressed strengthen the importance of using interactive technology-based learning media.

Conclusion

Based on the results and discussion, it is known that the application of Lucid-spark media in learning argumentative texts includes the preparation and implementation stages. The two stages include rules and links as well as preliminary, core, and closing activities. The application of the Lucidspark application in learning shows that this application supports the discussion process of students and trains critical thinking skills and maps ideas in composing argumentative texts. The advantage of the Lucidspark application is its various features so that teachers can design learning media, can be accessed simultaneously through various devices, and support the discussion and mind mapping process for students. The obstacles found are the unstable internet network and students who do not obey the rules are still found. The results of the assessment from the argument text showed that there were 93.1% of students who received a score above the minimum competency standards and 6.9% of students who had not achieved it. As many as 45% of students are satisfied with the application of Lucidspark in learning, 21% are very satisfied, and 34% feel quite satisfied.

Lucidspark media can be an alternative technology-based media that can be used to present materials, interactive discussion rooms, and assessments all at once in one place. This media is also interactive so that it can stimulate activeness and support student collaboration. Lucidspark is suitable for use as a learning medium because it facilitates the process of discussing and mapping ideas. In future research and practice, researchers are expected to be more responsive in regulating when students can use the discussion board and when students can only listen. Make sure the internet connection is stable so that learning takes place optimally.

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