



## Utilization of PowerPoint and YouTube as Digital-Based Learning Media: Literature Review

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### Abstract

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Learning media is one of the most essential tools in the learning process in the classroom. Learning media can help students understand the material presented more effectively and clearly. Learning media is continuously experiencing significant development, especially in the fourth industrial revolution era. With the fourth industrial and internet technology course, teachers and educators must also know the latest products regarding learning media that can be used. Among the currently commonly used media are Microsoft Office PowerPoint and YouTube. This study aims to discuss two digital-based learning media, i.e., YouTube and Microsoft PowerPoint. The study is conducted through a literature review of several available and current references. It was found that Microsoft PowerPoint and YouTube are effective media for learning and can help students understand better.

**Keywords:** Learning Media, PowerPoints, Youtube

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## INTRODUCTION

Learning media is one of the essential tools in the learning process inside the classroom. Learning media can help students understand the material presented more effectively and clearly, especially in science (Fatimah & Bramastia, 2021; Iskandar, Arifin, & Sudira, 2020). Conversely, if the available learning media are inadequate, it is feared that students will have difficulty understanding the lesson material presented, especially in science learning (Fatimah & Bramastia, 2021). Therefore, learning media must continue to be developed to make classroom learning more effective (A. et al., 2019).

Learning media is currently experiencing significant development, especially in the era of the Industrial Revolution 4.0. In addition, the impact of the COVID-19 pandemic, which has hit almost all over the world, has significantly required learning activities to be conducted online. It is expected that teachers and educators can take advantage of technological advancements in the industrial 4.0 era to create more effective teaching materials (Daston & Galison, 2017; Sudiarta & Sadra, 2016).



Learning media that teachers can use to deliver material in the classroom are available in various forms (Misbahudin, Rochman, Nasrudin, & Solihati, 2018). The first media commonly used, especially when digital technology was not yet developed, is tangible learning media (Fatimah & Bramastia, 2021), such as printed books, statues, torso, and other media that can be directly sensed by students (Herowati & Azizah, 2020). Secondly, electronic digital-based media that can take the form of text, graphics, animation, audio, and even video can also be used (Ismail, Othman, Amiruddin, & Ariffin, 2017). In addition, with the development of internet technology, students can now access electronic learning media massively. Furthermore, with the COVID-19 pandemic that has hit worldwide, various forms of online or distance learning-based learning media have emerged, allowing learning to be conducted online with various developing online platforms. Of course, online learning poses challenges for teachers and educators because it requires providing adequate digital-based learning media for students that can be accessed online.

With the development of industrial 4.0 technology and internet technology, teachers and educators must also know the latest developments regarding learning media that can be used, especially in science learning. Therefore, this study aims to discuss two digital-based learning media, namely learning media through YouTube and PowerPoint. The study will be conducted by conducting a literature review of several available and current references. It is hoped that this study can be a reference for teachers in keeping up with the development of digital learning media that is currently growing.

## **METHODS**

This research is a literature study. The type of data collected is secondary data (Marsyaelina, Sudiyatno, & Iskandar, 2022). There are four stages in writing this literature review: determining research topics and questions, searching for literature, analyzing literature search results, and writing a literature review (Fakultas Kesehatan Masyarakat Universitas Jember, 2020). The passwords used in the search on the google search engine are youtube, powerpoint, and combined with learning media. The documents that have been collected were obtained from journals, conference proceedings, books, thesis reports, and website pages until now. Document searches are done by going to the search website on Google Scholar and directly searched using the Google search engine. The documents collected are in bahasa.

## **RESULTS & DISCUSSION**

### **Learning Media**

Learning media is a tool that teachers and educators can use to facilitate the delivery of material to students (Audie, 2019). Learning media is particularly needed in science education because it often involves abstract theories and concepts difficult for students to comprehend. Therefore, learning media can illustrate the concepts and theories in science education to students, which can help them understand them more easily (Fatimah & Bramastia, 2021).

Currently, educators can use various forms of learning media to deliver material. Generally, learning media can be categorized into two types: tangible learning

media and digital learning media. Students can identify and sense tangible learning media (Herowati & Azizah, 2020). Examples of tangible learning media include printed books, sculptures, torsos, scrapbooks, and soil.

Digital learning media, on the other hand, are learning media that utilize electronic devices. Digital learning media can be developed using hardware and software (Fatimah & Bramastia, 2021). For example, software such as Adobe Flash and Macromedia Flash is used, which are then displayed with the help of hardware such as an LCD projector. Furthermore, digital-based learning media can now be accessed via the internet, so each student can access it as long as they are connected. Among the currently commonly used media are Microsoft Office PowerPoint and YouTube. Therefore, in the following section, this study will focus on discussing the utilization of PowerPoint and YouTube as media in creating digital-based teaching materials.

### **PowerPoint as Learning Media**

Microsoft Office PowerPoint is software that can be used for various purposes, including creating presentations. PowerPoint can present various materials through its slideshow feature (Fandana & Indrianti, 2013). PowerPoint can display an attractive presentation by presenting images, text, audio, animation, and video. Thus, learning materials can be provided more interestingly and comprehensively. It is hoped that Microsoft PowerPoint can be an effective student learning tool. Sholihin (2010) assessed that some advantages of using Microsoft PowerPoint as a media include its ease of use for both teachers and students, it can be used individually or in groups, it does not require high costs, it can produce an attractive display for the material to be presented, and it can be reused for learning activities in different classrooms.

Several studies on using Microsoft PowerPoint as a learning media have been conducted and assessed the effectiveness of using Microsoft PowerPoint as a learning media. The effectiveness of PowerPoint as a learning media was assessed through a technique called Authentic Assessment Based on Teaching and Learning Trajectory with Student Activity Sheet (AABTLT-SAS). This technique was used to determine how students could follow the learning process. The study found that using Microsoft PowerPoint as a learning media significantly increased scores, from an average score of 38.96 to 81.85 (Misbahudin et al., 2018). The increase in scores indicates that using Microsoft PowerPoint as a learning medium can improve students' concentration levels and is an effective learning medium.

Damitri (2020) conducted a study to assess using Microsoft PowerPoint as a learning media in the Building Engineering Vocational High School through a series of literature reviews. The nine reviewed literature found that using Microsoft PowerPoint as a learning media can improve student learning outcomes with an average learning completeness score of more than 80%. This is because Microsoft PowerPoint can present material in audiovisual form that can stimulate students' curiosity about the information presented and strengthen their memory.

Purwanti, Widyaningrum, & Melinda (2020) conducted a study to analyze the effectiveness of using Microsoft PowerPoint as a distance learning media during the COVID-19 pandemic. The research was also aimed at improving teachers' quality of learning and competency in creating exciting teaching materials. The

study used a questionnaire to obtain students' learning assessments using Microsoft PowerPoint. It was found that Microsoft PowerPoint was a relevant media to be used as a learning medium during the COVID-19 pandemic with online learning. In addition, most students felt that using Microsoft PowerPoint could increase their enthusiasm for learning and help them better understand the material. Therefore, Microsoft PowerPoint is still considered relevant because it can effectively present material through various images and animations, making it more enjoyable for students.

Herlina & Saputra (2022) conducted a study on developing Microsoft PowerPoint as a learning media for the Indonesian language for elementary school students. Learning media development was carried out based on an evaluation procedure called Analyze, Design, Development, and Implementation Evaluation (ADDIE). The assessment was conducted through a sample of 28 elementary school students. The study found that using Microsoft PowerPoint is suitable as a practical learning media because it can provide more apparent learning materials, increase students' learning enthusiasm, and create an interactive learning environment.

### **YouTube as Learning Media**

YouTube is a website or platform that allows users to share videos online (Sianipar, 2013). As a result, various types of videos can be accessed online on YouTube, including educational and instructional videos. Through YouTube, users can engage in various activities such as searching for videos based on category or title, uploading videos, broadcasting live, and discussing through the available comment section. Therefore, YouTube is a potential platform to be used as a more attractive, enjoyable, and interactive learning media. Consequently, several researchers have conducted various studies to obtain the effectiveness level of YouTube as a learning media.

Several studies on using YouTube as a learning media platform have been conducted, and a study has been conducted on the use of YouTube as a learning media for economics and accounting. This is because most economics and accounting learning media on YouTube are relatively limited. Therefore, the researchers created a primary accounting learning material based on YouTube. Based on the assessment, the YouTube-based learning videos created were considered appropriate based on expert material testing results. In addition, based on the test results given to students, positive results were obtained. The YouTube-based learning videos can interest students paying attention to the displayed learning videos.

Suwarto et al. (2021) conducted a study on creating biology learning media for high school students based on YouTube. From the study conducted, it was found that the use of YouTube as a learning media platform can improve student learning activities and facilitate the discussion process when discussing learning materials, whether in discussions with friends or with teachers.

Widyantara & Rasna (2020) conducted a study to determine the use of YouTube before and during the COVID-19 pandemic in teaching language skills to students using a descriptive method. From the literature study conducted by researchers, it was found that YouTube had indeed been used as a learning media platform before the Covid-19 pandemic, as can be seen from studies conducted by Luhsasi &

Sadjiarto (2017) Saragih & Salimi (2015). It was found that before the COVID-19 pandemic, the use of YouTube media could help students improve their ability to understand learning materials based on increased student scores. In addition, YouTube media made students not feel bored when receiving learning from teachers. However, there were some obstacles in learning through YouTube when implemented before the Covid-19 pandemic. Students experienced difficulties understanding YouTube videos in the classroom due to the less conducive classroom situation. Thus, students had difficulty understanding the YouTube videos when in class. The use of YouTube as a learning media platform during the COVID-19 pandemic by several researchers (Nugroho, 2020; Sari, 2020; Sukertiasih & Ardiawan, 2020). It was found that using YouTube media during the pandemic could improve student learning outcomes, from an average score of 73.5 to 80.55. In addition, learning through YouTube media could make online classes run effectively, create a conducive learning situation, and foster student interest in learning during the learning process. The use of YouTube media was not only popular among students but also among parents. This is reflected in the research results conducted by Sari (2020). Students' interest in learning through YouTube increased because YouTube videos can be replayed when students do not understand the material well. Parents can also monitor the learning process by directly watching the video content delivered and indirectly obtain satisfaction from the learning process provided by teachers through YouTube videos. This shows that using YouTube media is an effective and superior way as a learning media platform.

## **CONCLUSIONS**

This study discusses two digital-based learning media: learning media through YouTube and PowerPoint. A literature review of several available and current references conducts the study. The use of Microsoft PowerPoint as a learning medium can help students understand learning materials better based on the increased average value of students. This is because Microsoft PowerPoint can present the material delivered in audio-visual form, stimulating children to have a more significant curiosity related to the information conveyed and strengthening memory for children. YouTube can also be used as a learning medium that students prefer. It was found that using YouTube media during the pandemic can improve student learning outcomes. Student interest in learning through YouTube increases because videos on YouTube can be played repeatedly when students do not understand the material. This shows that Microsoft PowerPoint and YouTube can be effective learning media.

## **CONFLICT OF INTEREST**

Concerning the research, authorship, and publication of this paper, the authors reported no potential conflicts of interest.

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