Vol. 10, No.1, pp. 47-54, 2020 DOI: 10.23960/jpp.v10.i1.202006

Jurnal Pendidikan Progresif

e-ISSN: 2550-1313 | p-ISSN: 2087-9849

http://jurnal.fkip.unila.ac.id/index.php/jpp/

Student's View of Using Digital Learning Media in Classroom Activities: A Case of Public Senior High School in Cirebon, Indonesia

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Received: 23 January 2020 *Accepted: 25 February 2020* *Published: 29 March 2020*

Abstract: Student's View of Using Digital Learning Media in Classroom Activities: A Case of Public Senior High School in Cirebon, Indonesia. **Objectives:** This study aimed to determine the perceptions of senior high school students about the use of digital learning media in the learning process. **Method:** This study used a descriptive research design with a survey method to the 53 students of XI IPA of SMAN 1 Susukan that were randomly selected as research sample. The questionnaire was distributed to the sample as a data collection technique, and then the results were analyzed quantitatively with a percentage. **Findings:** The results showed that students were familiar with the use of digital media in the learning process; about 55.7% of students had used digital learning media. However, it was still dominated by the visual-based media (49.1% of students). Meanwhile, students had a favorable view of learning multimedia; around 41.5 % of students agreed to the development of multimedia products. **Conclusion:** Learning multimedia could be an innovation in digital learning media according to the attitudes shown by the students.

Keywords: digital learning media, digital era, learning multimedia, student's perception.

Abstrak: Pandangan Siswa tentang Menggunakan Media Pembelajaran Digital dalam Kegiatan Kelas: Kasus SMA Negeri di Kota Cirebon, Indonesia. ***Tujuan:*** *Penelitian ini bertujuan untuk mengetahui persepsi siswa SMA tentang penggunaan media pembelajaran digital pada proses pembelajaran.* ***Metode:*** *Desain penelitian deskriptif dengan metode survey diterapkan pada 53 siswa kelas XI IPA SMAN 1 Susukan yang dipilih secara acak sebagai sampel penelitian. Angket disebarkan kepada sampel sebagai teknik pengumpulan data yang kemudian hasilnya dianalisis secara kuantitatif dengan presentase.* ***Temuan:*** *Hasil penelitian ini menunjukkan bahwa siswa telah akrab dengan penggunaan media digital dalam proses pembelajaran, sebanyak 55,7% siswa telah menggunakan media pembelajaran digital, meskipun masih didonimasi oleh jenis media berbasis visual (49,1% siswa). Sementara itu, siswa memiliki pandangan yang positif terhadap multimedia pembelajaran, 41,5% siswa setuju untuk pengembangan produk multimedia.* ***Kesimpulan:*** *multimedia pembelajaran dapat menjadi inovasi media pembelajaran digital sesuai dengan sikap yang ditunjukkan oleh siswa.*

Kata kunci: *media pembelajaran digital, era digital, multimedia pembelajaran, persepsi siswa.*

To cite this article:

Budiarto, M, K., Joebagio, H., & Sudiyanto, S. (2020). Student's View of Using Digital Learning Media in Classroom Activities: A Case of Public Senior High School in Cirebon, Indonesia. *Jurnal Pendidikan Progresif, 10*(1), 47-54. doi: 10.23960/jpp.v10.i1.202006.

INTRODUCTION

The digital era has brought various changes and has a positive impact if it could be utilized as well as possible. However, it does not rule out the possibility that the digital era also brings negative consequences, so each of us should be responsive in addressing these various impacts. Responsiveness in facing the challenges is an important thing to respond the development of the digital era as various problems that arise in the digital era have entered any fields in human life (Nithyanantham, Paulmony, & Ramadan, 2019).

Current students are expected to have many skills so they could face the challenges and take advantage of all the opportunities that exist. Most educational institutions currently have an emergency for facing an increasingly competitive world so that all educators must be able to utilize Information and Communication Technology (ICT) during the learning process in the classroom. As of the learning process in this digital era would run effectively and efficiently, every teacher must have the skills and innovation in creating a dynamic learning atmosphere so that students can obtain the skills needed in the 21st century, such as collaboration skills, technological literacy, critical-thinking skills and creativity, communication literacy, and human literacy (Saputri, Rukaya, & Indri, 2018; Rusmana, Murtini, & Harini, 2019).

The use of technology in various fields is needed, including in education, as one of the critical aspects in the development of superior and competitive human resources (Priwantoro, Fahmi, & Astuti, 2018). Several factors have contributed to the quality of education, one of which is learning activities. The use of traditional learning methods that tends to lead to the dominance of teachers has received criticisms from various parties for being unable to generate a dynamic learning environment. It is also unable to present 21st-century competencies as required for students' lives (Serin, 2018). The development and advancement of technology offer the ease of the learning process; as a result, there is a shift in the orientation of learning, which now tends to lead to student-centered learning (Priyanto, 2009; Komalasari & Rahmat, 2019). Student-centered learning would bring about independent learning experiences and engage in full learning activities. It could be carried out through cooperative learning implementation where a group of students works together to solve a problem through the provision of learning resources provided by the teacher (Condelli & Wrigley, 2009).

Learning resources become one of the essential elements in learning activities. In classical learning, learning resources function as the primary source of information, the supervisor, and the controller of the learning process and as the supporting material for the learning process that occurs. Teaching materials in individual learning function as the primary media in the learning process, as a tool used to organize and oversee the process of students in obtaining information (Hadaya, Asrowi, & Sunardi, 2018). Technological developments have influenced the use of media or learning resources, so there are many emerging learning sources or media that a real ready digital-based such as e-books in the learning process (Embong, Noor, Hashim, Ali, & Shaari, 2012; Yaya, 2015), video learning materials (Nurani, Masruhim, & Palenewen, 2016), audio media, mobile learning (Göksu & Atici, 2013; Hanif, Asrowi, & Sunardi, 2018); Ozdamli & Cavus, 2011), and interactive multimedia (Misir, 2018;Yue, 2017).

Cambridge International released the results of the Global Education Census research. The results from this survey showed that Indonesian students were among the highest technology users in the field of education, as evidenced in the research that Indonesian students got the highest

global rank as ICT/computer users (40%) at school and the world's runner up for the top category of computer users (54%) after the US (Mulyani, 2018).

Utilizing digital technology allows the teaching process to be more innovative and exciting, so students are motivated to learn. Besides, the use of digital technology in the learning process would also reflect the enthusiasm of the teacher in getting additional benefits from the implementation of digital technology (Motamedi, 2019; Yildiz, 2019). One learning innovation that could be presented in learning activities is an interactive instructional media like multimedia.

Multimedia consists of two or more media formats composed of texts, images, graphics, sounds, animations, and videos of a material or information which are then entered into a computer system so that through the media incorporated in multimedia, it is expected that learning activities would become more interactive and dynamic (Komalasari & Rahmat, 2019; Kapi Kahbi, Osman, Ramli, & Taib, 2017). Multimedia has several characteristics, including (1) diversity, (2) interactive, (3) integration of several components, and 4) *real-time* (Yue, 2017). The interactivity element in multimedia aims that users can exercise full control during their use in the learning process (Zhen, 2016). The development of multimedia must go through expert validation and must be of the "feasible" criteria to be used in the learning process. Some of the potentials of the multimedia in learning are(1) increasing learning interest, (2) increasing student understanding, and (3) improving the memory related to the material presented (GebreYohannes, Hadi Bhatti, & Hasan, 2016).

Utilization of multimedia would have an impact on improving the quality of learning, starting from increasing student learning motivation (Lau, Yen, Li, & Wah, 2014), increasing learning productivity, and improving students' mathematical abilities (Kumar & Hema, 2017).The use of multimedia in learning biology could improve students' learning outcomes, so multimedia is recommended to be used on the materials that require the depiction of something abstract (Ruth Iwanger, 2018).Learning multimedia can improve students' English vocabulary mastery and their academic achievements in another scientific field, namely government science (Yue, 2017; Han & Niu, 2019).The use of multimedia in the classroom tends to be better and more effective in science learning, which allows the learning process to be centered on student-centered so that it can create a more suitable learning environment. (GebreYohannes et al., 2016; Kurniawati & Nita, 2018). The research conducted by Handayani, Setyosari, & Sulthoni (2017) concluded that the development of multimedia for learning biology could motivate students during the learning process, and the students find it easier to learn the material displayed on the learning multimedia.

There is still resistance from educators or teachers to implement technology in the learning process due to several factors such as digital literacy of teachers, namely teachers' low skills to manage and integrate technology and materials into the learning process and the desire of the teacher to learn how to use new technologies in the learning process (Hanif et al., 2018;Osakwe, Dlodlo, & Jere, 2017). Teachers should understand that in the learning process nowadays, students are familiar with technology, so as an educator, they must be able to pay attention and accommodate the characteristics of their students. Therefore, much research is still needed to meet the potential and challenges of finding the right way in the framework of applying digital technology in the learning process. Various advantages and positive effects of bringing multimedia in the learning process have been

mentioned above so that multimedia is one of the tremendous potential technologies that can be applied to improve learning effectiveness.

METHODS

The design of this study uses descriptive research with the survey as the data collection method. In this design, the data are from samples that represent the population using a questionnaire as a data collection instrument (Nazir, 2003; Sugiyono, 2012). The data collection technique used in this study is by distributing questionnaires. The data collected using the questionnaire then analyzed quantitatively using a percentage. The research took place at SMAN 1 Susukan, Cirebon. The sample was chosen randomly, who could represent the total population of students of class XI Science. The data were collected from two classes namely class XI Science1 and 2 with the total of 53 students.

The study began by administering sample questionnaires to 53 students. Meanwhile, this research only focuses on students' perceptions about the use of digital learning media in the learning process. It made a composition of the questions in the questionnaire consist of types of digital learning media commonly used by students, students' abilities to operate computers, students' perceptions about one of the digital learning media in the form of learning multimedia applications, and the final question about students' reasons of choosing multimedia as digital learning that can be utilized in the learning process.

RESULTS AND DISCUSSION

This part will show the results of the research related to the use of instructional media in the classroom, types of learning media, students' abilities to operate computers, and their perceptions of learning multimedia. In this section, we will describe the use of learning media used during the learning process in class. When 53 students were asked about the use of the learning media often used in the classroom, some students answered that they still used conventional learning media, which was almost 45.3 % of students or 24 students. Meanwhile, 55.7% of students (29 students)were using digital learning media. This questionnaire indicates that the majority of students are familiar with the use of digital learning media.

Related to the type of use of learning media, around 49.1% of the students use visual types of digital learning media, 37.7% of the muse audio-visual (video) types, and 13.2% often use audio learning media, as described in Table 1 below.

Table 1. Types of Learning Media

No.	Types of Learning Media	F	%
1	Audio – Visual (Video)	20	37.7
2	Audio	7	13.2
3	Visual	26	49.1
4	Multimedia	0	0

The results obtained based on the survey on students' perceptions of the learning multimedia show that as the students had never used this type of learning media, the researcher tried to give an example of learning multimedia by presenting it in front of the class. The next question is about students' opinions regarding learning multimedia, showing that 45.3% of the students strongly agree if multimedia will be developed and used in the learning process, 41.5% of the agree, and 13.2% choose to be neutral as shown in table 2.

Table 2. Student Perception about Learning Multimedia

No.	Student's Response	F	%
1	Strongly Agree	24	45.3
2	Agree	22	41.5
3	Neutral	7	13.2
4	Disagree	0	0
5	Strongly Disagree	0	0
Total (N)		53	100

The use of multimedia requires the ability of the user, in this case, students, related to computer operations. Based on the data obtained from the students, 43.4% of them have an excellent ability to operate computers, while 56.6% have a sufficient ability to operate computers categorized as enough. The data findings related to the reasons of students who prefer to use learning multimedia show that 26.4% of students said multimedia had an attractive appearance, 13.2% said learning multimedia was interactive, and 35.8% stated that in learning multimedia, the form of material or information was varied. It was also found that 24.5% of the students said they only wanted the learning process to use learning multimedia, as shown in Table 3.

Table 3. Students' Reason of Choosing Multimedia as Learning Media

No.	Student's Response	F	%
1	Attractive Display/Appearance	14	26.4
2	Interactive	7	13.2
3	The Material Consists of Many Forms of Information	19	35.8
4	Just Want to Learn Using Multimedia	13	24.5
Total (N)		53	100

Technology has influenced various fields of life; the field of education should adjust to these changes. Student's familiarity with technology can be the potential to utilize technology in the learning process. However, based on the survey data, students still tend to use conventional learning media. The use of the learning media may result in the learning outcomes as set in the learning objectives. Because many factors affect learning outcomes (Hapnita, Abdullah, Yualitas Gusmareta, & Rizal, 2017; Sutrisno & Siswanto, 2016), it cannot be generalized that learning media is the only factor determining students' learning outcomes.

Although computer-based learning has a vital role because it can facilitate students to construct their knowledge (Shi, 2017), interactivity contained in multimedia will make students able to fully control the learning material while using it (Yue, 2017) and more importantly, students have more flexibility in the learning process. Students seem to be very familiar with the use of technology, especially the computer. This finding is one of the potential uses of technology in the learning process. Students who agree with the presence of multimedia-based technology assume that multimedia with attractive (Yue, 2017) and interactive appearance (Irmawati, Degeng, & Djatmika, 2017), as well as various components making up the material for more than one type of media (Kurniawati & Nita, 2018),could create pleasant learning conditions.

Developing multimedia for learning should begin with an analysis. Needs analysis accommodates student characteristics, student needs for the subject matter, the suitability of the media with the students. The results of the student needs and characteristics analyses are essential for the learning multimedia product development. Thus, students would be able to feel the benefits when using multimedia in learning activities.

CONCLUSIONS

Based on the data in this study, students are still unfamiliar with the use of learning multimedia. Meanwhile, around 55.7% of students are still using digital learning media. Besides that, when students are asked about choosing learning

multimedia for the learning process, interestingly, there are 35.8% of them answering that the material in learning multimedia consists of various types. It indicates that during the learning process, the teacher tends to use simple learning media. Students who are very familiar with technology could be used as a reference for integrating technology with learning materials. It is indeed a high potential for improving the quality and effectiveness of learning in the classroom, for example using interactive multimedia for learning activities in class. Some researchers have found that using multimedia for learning will be useful for students. It is expected that the results of this research can become a consideration for the sustainability of the process of developing learning multimedia products, given that students are still unaware of learning multimedia. Meanwhile, several relevant studies have proven that the use of multimedia in the learning process has a positive impact on student performance.

■ REFERENCES

Condelli, L. & Wrigley, H. S. (2009). *What works for adult literacy students of English as a second language? In S. Reder& J. Bynner (Eds.), Tracking adult literacy numeracy skills: Findings from longitudinal research*. New York & London: Routledge.

Embong, A. M., Noor, A. M., Hashim, H. M., Ali, R. M., &Shaari, Z. H. (2012). E-books as textbooks in the classroom. *Procedia - Social and Behavioral Sciences*, *47*, 1802–1809.

Gebre, Yohannes, H. M., Hadi Bhatti, A., & Hasan, R. (2016). Impact of multimedia in teaching mathematics. *International Journal of Mathematics Trends and Technology*, *39*(1), 80–83.

Göksu, Ý., & Atici, B. (2013). Need for mobile learning: technologies and opportunities. *Procedia - Social and Behavioral Sciences*, *103*, 685–694.

Hadaya, A., Asrowi, A., &Sunardi. (2018). Perception of junior high school students about the use of e-books as learning sources. *Journal of Educational Science and Technology*, *4*(1), 55–61.

Han, M., & Niu, S. (2019). Effect of computer multimedia assisted word annotation on incidental vocabulary acquisition of English reading. *International Journal of Emerging Technologies in Learning*, *14*(13), 21–32.

Handayani, A., Setyosari, P., &Sulthoni. (2017). *Pengembangan bahan ajar biologi berbasis multimedia untuk siswa kelas VIII SMP Islam Yakin Tutur Kabupaten Pasuruan* [The development of multimedia-based biology teaching materials for VIII grade students of Islamic Junior High School Yakin Tutur in Pasuruan Regency]. *Edcomtech: Jurnal Kajian Teknologi Pendidikan*, *1*(1), 19–28.

Hanif, M., Asrowi, A., & Sunardi. (2018). Students' access to and perception of using mobile technologies in the classroom: the potential and challenges of implementing mobile learning. *Journal of Education and Learning (EduLearn)*, *12*(4), 644–650.

Hapnita, W., Abdullah, R., Yualitas, G., & Rizal, F. (2017). *Faktor internal dan eksternal yang dominan mempengaruhi hasil belajar menggambar dengan perangkat lunak siswa kelas XI teknik gambar bangunan SMKN 1 Padang Tahun 2016/ 2017* [Internal and external factors that predominantly affect learning outcomes in drawing with software for siswa kelas XI teknik gambar bangunan SMKN 1 Padang in 2016/2017]. *Cived: Journal of Civil Engineering and Vocational Education*, *5*(1), 2175–2182.

Irmawati, I., Degeng, I. N. S., & Djatmika, E. T. (2017). *Multimedia pembelajaran IPS materi kondisi geografis wilayah*

Indonesia pada siswa kelas V Sekolah Dasar [Multimedia learning social science in subject matter geographical conditions of Indonesia for fifth grade of elementary schools students]. *Jurnal Pendidikan: Teori, Penelitian, dan Pengembangan*, *2*(5), 604–609.

Kapi Kahbi, A. Y., Osman, N., Ramli, R. Z., &Taib, J. M. (2017). Multimedia education tools for effective teaching and learning. *Journal of Telecommunication, Electronic and Computer Engineering*, *9*(2–8), 143–146.

Komalasari, K., & Rahmat. (2019). Living values based interactive multimedia in Civic Education learning. *International Journal of Instruction*, *12*(1), 113–126.

Kumar, R. R., & Hema, G. (2017). Effects of multimedia instructional strategy for enhancing students' learning and retention in mathematics. *Journal on School Educational Technology*, *13*(2), 7–13.

Kurniawati, I. D., & Nita, S. (2018). *Media pembelajaran berbasis multimedia interaktif untuk meningkatkan pemahaman konsep mahasiswa* [Interactive multimedia-based learning media to enhance students' concepts understanding]. *DoubleClick: Journal of Computer and Information Technology*, *1*(2), 68–75.

Lau, R. W. H., Yen, N. Y., Li, F., & Wah, B. (2014). Recent development in multimedia e-learning technologies. *World Wide Web*, *17*(2), 189–198.

Misir, H. (2018). Digital literacies and interactive multimedia-enhanced tools for language teaching and learning. *International Online Journal of Education and Teaching*, *5*(3), 514–523.

Motamedi, V. (2019). The promises of presentational technology for teaching and learning. *Journal of Education and Learning*, *13*(3), 416–419.

Mulyani (2018). *Riset Cambridge: Pelajar Indonesia Pengguna Teknologi Tertinggi di Bidang Pendidikan* [Cambridge Research: Indonesian Students Use the Highest Technology in the Field of Education]. Retrieved September 30, 2019, from https://news.okezone.com/read/2018/11/21/65/1980696/riset-cambridge-pelajar-indonesia-pengguna-teknologi-tertinggi-di-bidang-pendidikan

Nazir, M. (2003). *Metode Penelitian* [Research Method]. Jakarta: Salemba Empat.

Nithyanantham, V., Paulmony, R., & Ramadan H., S. (2019). Self-perspective of 21st century educators: a challenge in the globalised educational world. *International Journal of Educational Research Review*, *4*(3), 325–333.

Nurani, I., Masruhim, M. A., & Palenewen, E. (2016). *Analisis kebutuhan pengembangan media audio visual pokok bahasan sintesis protein untuk SMA* [Analysis of the need for developing audio-visual media as the subject of protein synthesis for SMA]. *Jurnal Varidika: Kajian Penelitian Pendidikan*, *28*(1), 90–95.

Osakwe, J., Dlodlo, N., & Jere, N. (2017). Where learners' and teachers' perceptions on mobile learning meet: A case of Namibian secondary schools in the Khomas region. *Technology in Society*, *49*, 16–30.

Ozdamli, F., &Cavus, N. (2011). Basic elements and characteristics of mobile learning. *Procedia - Social and Behavioral Sciences*, 973–942.

Priwantoro, S. W., Fahmi, S., &Astuti, D. (2018). *Analisis kebutuhan pengembangan multimedia* [Need analysis of multimedia

development]. *AdMathEdu: Jurnal Ilmiah Pendidikan Matematika, Ilmu Matematika dan Matematika Terapan*, *8*(1), 49–58.

Priyanto, D. (2009). *Pengembangan multimedia pembelajaran berbasis computer* [Development of computer-based learning multimedia]. *INSANIA: Jurnal Pemikiran Alternatif Kependidikan*, *14*(1), 92–110.

Rusmana, D., Murtini, W., & Harini. (2019). An analysis the effect 21st century digital skill on the entrepreneurship personal competence. *International Journal of Education and Social Science Research*, *2*(5), 198–205.

Ruth Iwanger, S. (2018). Effect of multimedia instructional approach on mid basic ii pupils' interest and retention in basic science. *International Journal of Scientific and Research Publications*, *8*(11), 343–384.

Saputri, D. Y., Rukaya, R., & Indri, M. (2018). Need assessment of interactive multimedia based on game in elementary school: a challenge into learning in 21st century. *International Journal of Educational Research Review*, *3*(3), 1–8.

Serin, H. (2018). A comparison of teacher-centered and student-centered approaches in educational settings. *International Journal of Social Sciences & Educational Studies*, *5*(1), 164–167.

Shi, X. (2017). Application of multimedia technology in vocabulary learning for engineering students. *International Journal of Emerging Technologies in Learning*, *12*(1), 21–31.

Sugiyono. (2011). *Metode Penelitian Kuantitatif, Kualitatif, R&D* [Quantitative, Qualitative, R&D Research Methods]. Bandung: Alfabeta.

Sutrisno, V. L. P., & Siswanto, B. T. (2016). *Faktor-faktor yang mempengaruhi hasil belajar siswa pada pembelajaran praktik kelistrikan otomotif SMK di Kota Yogyakarta* [Factors that influence student learning outcomes in learning the practice of vocational automotive electrical practice in the city of Yogyakarta]. *Jurnal Pendidikan Vokasi*, *6*(1), 111–120.

Yaya, J. A. (2015). Prospects and challenges of e-books in school media services in Nigeria/ : the way forward about e-books.*International Journal of Education and Information Technology*.*1*(3), 92–98.

Yildiz, E. P. (2019). Research trends in educational technology in turkey: 2010-2018 year thesis and meta-analysis of articles. *International Journal of Computer-Aided Technologies*, *6*(2), 01–16.

Yue, N. (2017). Computer multimedia assisted English vocabulary teaching courseware. *International Journal of Emerging Technologies in Learning*, *12*(12), 67–78.

Zhen, Z. (2016). The use of multimedia in english teaching. *US-China Foreign Language*, *14*(3), 182–189.