Students' Learning Motivation in Oriental Food Processing Course during Online Learning Using Digital Smart Book Learning Media

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Abstract. The learning process is conducted by interactively, inspirative, fun, and motivates the students with technology in order to improve students' motivation and learning outcomes. Then, this research aimed to improve students' learning motivation in Oriental Food Processing during online learning using digital smart book learning media. The subjects in this study were the 4th-semester students of Culinary Art Education Study Program, Industrial Technology, Faculty of Engineering, State University of Malang. The analysis used descriptive analysis. The data was collected using questioner through a Google form. Results showed that around ninety students were motivated to follow online learning using digital smart book media. Thus, it exhibited that the digital smart book learning media helped improve students learning motivation. The conclusion, this technology could be used for other courses as an innovative solution to overcome students' problems and difficulties in the online learning process.

Keywords: Motivation, media, digital smart book

INTRODUCTION

The rapid development of knowledge and technology influenced education through updates in technology usage and implementation in learning (Raja & Nagasubramani, 2019). Technology development encourages print technology with computer technology in learning activities (Sugianto et al., 2013).

Digitalization in education is also related to improving the education quality, especially learning quality, and improving the quality of learning learner oriented (Coman et al., 2020). Essentially, digital technology in learning facilitates the learning process for students. The benefit of digitization in the learning process makes students easier to receive teaching materials and more active in independently accessing learning resources (Amarulloh et al., 2019). According to Dick and Carey (1990: 72), learning materials should be material that students can learn entirely by themselves.

Digital learning implementation requires teachers to understand and comprehend the technology and offer instruction and positive commitment to students to prevent an unwanted situation from its utilization during the learning. Thus, teachers' role in learning remains and crucial (Amarulloh et al., 2019).

This development makes a paradigm shift in Purdy and Wright (1992). There are shifts and differences in the learning patterns paradigm between learning that does not involve technology. That does and between the concept of learning in the classroom (classroom setting) and open learning or digital learning that does not have to be in class. Further, Coman et al. (2020) explains that digital learning models have differences in teaching styles, techniques and motivation of learners and teachers, and digital learning models as the effective future models because they follow the technology demands.

Following the development of Information and Communication Technology, books also undergo development. Previously, books are distributed in prints, whereas currently, many books are digitally formatted. Slowly but sure, the digital book begins to be widely used and demanded. It is not possible that several years in the future, its existence will dominate. The digital format approach is strategic to overcome the printed counterparts' shortcomings. Digital books would never wear out or break, unlike the printed books. In size, digital books are very compact, so they are practice to be carried everywhere

and ready to be read through the appropriate devices (Prasetya, 2015). Information technology products that can be used as complementary media and learning facilities are the Digital Book Interactive, multimedia which contains digital information in text or images which are electronic representations of a digital book (Baron, 2017) that can facilitate the students, not only textually but also audio and visual (Hok & Intai, 2017).

The electronic module also has many advantages than printed module: more practical to carry due to its small size and light in weight, uses CD, USB flash disk, or memory card as the data storage medium, and cheaper production cost; reproducing the item can be done by copying files between users, delivery or distribution can be done using e-mail, it is durable depending on the medium, the script can be arranged in a linear or non-linear manner and can be accompanied by audio, animation and video in its presentation (Tim UNY, 2016).

Online learning is an educational innovation that involves information technology elements. According to Mustofa et al. (2019), online learning is a distance education system with teaching methods where the teaching activities are carried out separately from learning activities.

The research conducted by Parise and Crosina (2012) and Boyinbode and Fasunon (2015) showed that technology media is a supplement in classroom learning with a significant effect on improving collaborative learning and teamwork.

The correct learning media greatly influences students' motivation. A learning process that utilizes media is expected to motivate students. Learning pleasure must be met first to improve students' motivation (Wahyullah, 2016).

According to Mc Donald (Kompri, 2016), motivation is an energy changes in oneself as marked by the emergence of affective (affection) and reaction to reach the goal. During the learning process, learning motivation is a vital aspect. Motivation is an essential condition of learning. Learning motivation positively affect the learning outcome.

Motivation is an external process that activates, guides, and maintains behavior from time to time. There are various types, intensities, goals, and directions in motivation. Learning motivation plays an essential role for students and teachers (Sjukur, 2012). Independent learning refers to learning sourced from thinking and behavior from the students that systematically directed towards their learning target (Moore, 1973).

Psychology experts defined motivation as an external process that activates, guides, and maintains behavior from time to time. Simplified, motivation causes you to walk, keep you walking, and determine which direction you walk (Moore, 1973).

This situation follows the opinion of Chuang (2014), who stated that technology utilization in learning would improve students' motivation and learning outcomes. Also, technology utilization as learning media can be accessed whenever and wherever using portable media such as a smartphone (Herrington, 2008). Hence, the learning process can be conducted interactively, inspirative, fun, and motivates the students using technology.

METHODS

This study used a quantitative research method from March to April 2021. The subjects were 4th-semester students from the class of 2019 who took Oriental Food Processing course in the Bachelor of Culinary Art Education study program, Faculty of Engineering, the State University of Malang with 32 students in total consisted of 29 female students and 3 male students. Data was collected through a questionnaire on motivation during online learning using google form and assessed using the Likert scale with 16 questions (7 on attention aspect, 2 on relevance aspect, 5 on confidence aspect, and 2 on satisfaction aspect). According to Sugiyono (2018), the Likert scale is used to measure the attitude, opinion, and perception of an individual or a group of people on a social phenomenon, as shown in Table 1. Then, the percentage results criteria can be seen in Table 2.

Table 1. The Likert Scale

Assessment Criteria	Assessment Scale
Strongly Agree	5
Agree	4
Neutral	3
Disagree	2
Strongly Disagree	1

Table 2. Score Interpretation Criteria

Value Range	Description
0% –19.99%	Very Poor
20%–39.99%	Poor
40%–59.99%	Fair
60%–79.99%	Good
80%–100%	Excellent

The above calculation results were the basis in analyzing and concluding the students' motivation during online learning using digital smart book media.

RESULTS AND DISCUSSIONS

Figure 1 displays the questionnaire results of online learning motivation in Oriental Food Processing course from 32 students on 4th year of the Culinary Art Education study program.
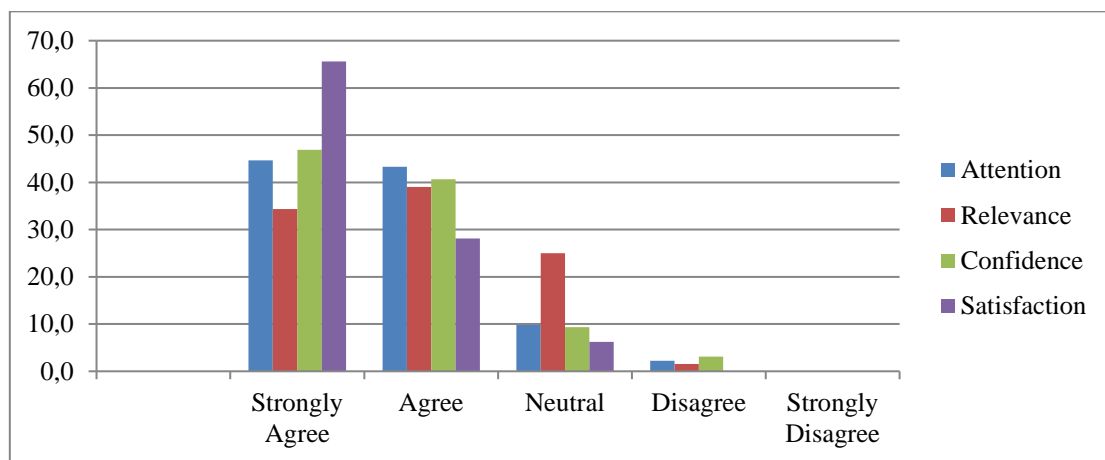

Figure 1. Students Motivation Chart During Online Learning

Based on Figure 1, in the attention aspect, students paid attention and listened to the lecturer's material presentation, took notes, and complied with lectures during online learning resulted in the percentages of 44.6% of students strongly agreed, 43.3% agreed, 9.8% neutral, and 2.2% disagree. In fair criteria, several things must be considered to improve students' attention to have high concentration during lectures. Some efforts are using media and material that attract the students, unable to listen to the lecture could be caused by lousy internet network, reinforces at the end of the lecture, and asks students to summarize the lecture outcomes to help keep the students' interest.

In the relevance aspect, whether students were interested and asked about the presented material, the percentage showed 34.4% of students strongly agreed, 39.1% agreed, 25% neutral, and 1.6% disagreed. Curiosity is a significant initial capital in the learning process; with high curiosity, the desire will encourage students to find what they know (Fitriyani et al., 2020). Observing the percentages above, poor results in attraction and enquiring were probably caused by in practicum course, and students would be energized in a direct face-to-face learning; hence, media usage might attract their interest. It follows Mangewa (2010: 172), who argued that the benefits of learning media are "generating excitement in learning, enabling more direct interactions between students and the environment and reality and allowing students to learn individually according to their abilities and interests."

In the confidence aspect, enthusiasm, capability, and confidence in doing assignments showed that 44.9% of students strongly agreed, 40.6% agreed, 9.4% neutral, and 3.1% disagreed. These results belong to fair criteria and might be caused by the pandemic situation so that students lacked enthusiasm

in learning and doing assignments. There was a number who lacked confidence in the assignment outcomes. Motivation and enthusiasm in learning are correlated with the learning activity (Fitriyani et al., 2020).

In the satisfaction aspect, the desire to get a good grade and satisfaction in the assignment obtained that 65.6% of students strongly agreed, 28.1% agreed, and 6.3% neutral. These results were categorized into a good category, in which students had the desire to get good grades after doing assignments or exams.

Several factors play roles to improve learning motivation, a success indicator of the learning process, many such as internal and external factors. A supporting factor, for example, to influence the learning motivation is utilizing or using learning media. Instructional media is beneficial in implementing learning in which students will be able to work according to their abilities, while the teacher only directs learning to achieve a goal (Wahyullah, 2016).

After observing the online learning motivation that obtained the average of adequate; thus, digital smart book of Oriental Food Processing with China, Japan, and Korea materials as digital learning media is required. Figure 2 displayed the results.
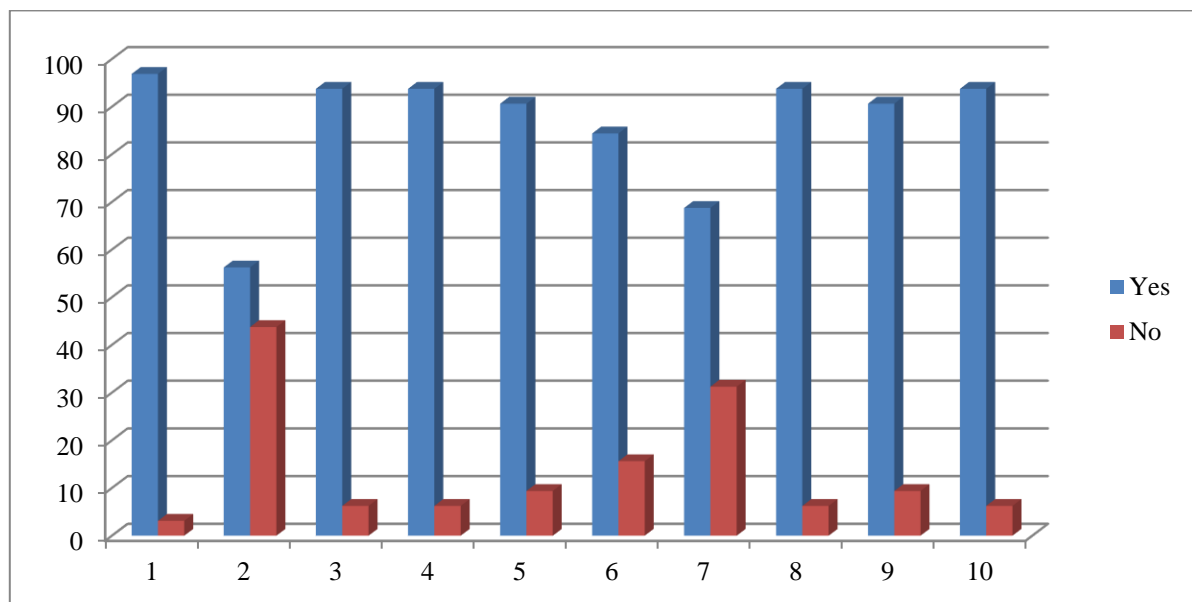

Figure 2. Learning Motivation Using Digital Smart Book Media

The ten questions on using digital smart book media resulted in the good category with an average of 90.6% students' motivation improved after using the media. Kurniawan and Piyana (2019) also obtained the questionnaire results on students' motivation in learning using electronic modules in the good category, meaning that electronic modules could make students enthusiastic about learning.

The increase in learning motivation using the digital smart book was the key for the students to advance, following the argument of Sardiman (2914:85), who stated that learning motivation has three functions: (1) encouraging humans to act, meaning that it is the driving force of every activity; (2) determining the action direction, meaning that it can provide the direction that must be done following the stated objectives; (3) selecting actions, such as selecting activities to support achieving goals and setting aside activities or actions that are not suitable with the objectives; and (4) encouraging efforts to get achievement, a student who has strong motivation will be more diligent in studying to get a better outcome.

CONCLUSION

In conclusion, online learning using digital smart book improved students' learning motivation on Oriental Food Processing course. It was exhibited with 90.6% of students who had high motivation in attending lecture using the said media. Students preferred a lecture that involved them; therefore, an interactive learning material needed to be developed. Students could understand and operates the interactive material media and increased the learning motivation. Hence, the digital smart book effectively improves students' learning motivation on Oriental Food Processing course.

REFERENCES

Amarulloh, A., Surahman, E., & Meylani, V. (2019). Refleksi peserta didik terhadap pembelajaran. *Jurnal Metaedukasi: Jurnal Ilmiah Pendidikan, 1*(1), 13-23.

Baron, N. S. (2017). Reading in a digital age. *Phi Delta Kappan, 99*(2), 15-20.

Boyinbode, O. & Fasunon, D. (2015). Deploying an interactive mobile learning system in the classroom. *International Journal of u- and e-Service, Science and Technology, 8*(4), 321-330.

Chuang, Y. T. (2014). Increasing learning motivation and student engagement through the technology-supported learning environment. *Creative Education, 5*, 1969-1978. http://dx.doi.org/10.4236/ce.2014.523221

Coman, C., Țîru, L. G., Meseșan-Schmitz, L., Stanciu, C., & Bularca, M. C. (2020). Online teaching and learning in higher education during the coronavirus pandemic: students' perspective. Coman, C., Țîru, L. G., Meseșan-Schmitz, L., Stanciu, C., & Bularca, M. C. (2020). Online teaching and learning in higher education during the coronavirus pandemic: students' perspective. *Sustainability*, *12*(24), 10367. (24), 10367.

Dick, W. & Carey, L. (1990). *The Systematic Design of Instruction*. London: Scat, Foresman & Company.

Herrington, A. (2008). *Adult educators' authentic use of smartphones to create digital teaching resources.* In R. Atkinson & C. McBeath (Eds.), Annual Conference of the Australasian Society for Computers in Learning in Tertiary Education (pp. 414-418). Melbourne, Australia: Deakin University.

Ho, D. T. K., & Intai, R. (2017). Effectiveness of audio-visual aids in teaching lower secondary science in a rural secondary school. *Asia Pacific Journal of Educators and Education, 32*, 91-106.

Kompri. (2016). *Motivasi Pembelajaran Perspektif Guru dan Siswa*. Bandung: PT Rosda Karya.

Kurniawan, D. A., & Piyana, S. O. (2019). E-Modul Etnokontruktivisme: Implementasi pada kelas V Sekolah Dasar ditinjau dari persepsi, minat dan motivasi. *JTP-Jurnal Teknologi Pendidikan, 21*(2), 165-177.

Mangewa, M. (2010). *Perencanaan Pembelajaran*. Makassar: Badan Penerbit UNM.

Moore, M. G. (1973). Toward a theory of independent learning and teaching. *The Journal of Higher Education, 44*(9), 661-679.

Mustofa, M. I., Chodzirin, M., Sayekti, L., & Fauzan, R. (2019). Formulasi model perkuliahan daring sebagai upaya menekan disparitas kualitas perguruan tinggi. *Walisongo Journal of Information Technology, 1*(2), 151. https://doi.org/10.21580/wjit.2019.1.2.4067

Parise, S., & Crosina, E. (2012). How a mobile social media game can enhance the educational experience. *Journal of online Learning and Teaching, 8*(3), 209-222.

Prasetya, D. D. (2015). Kesiapan pembelajaran berbasis buku digital. *TEKNO, 24*(2), 60-64.

Purdy, J. & Cabot, W. (1992). Cabot Wright Begins. New York: Liver light. *MERLOT Journal of Online Learning and Teaching, 8*(3), 209-222

Raja, R., & Nagasubramani, P. C. (2018). Impact of modern technology in education. *Journal of Applied and Advanced Research*, *3*(1), 33-35.
s%20E-Module.pdf.

Sardiman, A. M. (2014). *Interaksi Dan Motivasi Belajar Mengajar*. Jakarta: Rajawali Pres

Sjukur, S. B. (2012). Pengaruh blended learning terhadap motivasi belajar dan hasil belajar siswa tingkat SMK. *Jurnal Pendidikan Vokasi, 2*(3), 368–378.

Sugianto, D., Abdullah, A. G., Elvyanti, S., & Muladi, Y. (2013). Modul virtual: Multimedia flipbook dasar teknik digital. *Invotec, 9*(2), 101-116.

Tim UNY. (2016). *Modul Vs E-Module*. Accessed on 20 January 2021. http://staffnew.uny.ac.id/upload/198401312014042002/pengabdian/Modul%20V

Wahyullah, A. (2016). Pengaruh penggunaan media animasi dalam pembelajaran IPS terhadap motivasi belajar siswa kelas IV SD Negeri Mannuruki. *Journal of EST, 2*(2), 81- 90.