

STUDENTS' PERCEPTION OF SPADA UWGM AS LEARNING MANAGEMENT SYSTEM (LMS) IN WIDYA GAMA MAHAKAM SAMARINDA UNIVERSITY

Godefridus Bali Geroda¹, Riska Safitri²

¹) *Program Studi Bahasa Inggris FKIP, Universitas Widya Gama Mahakam, Indonesia
Jl. M. Yamin Samarinda, Kalimantan Timur*

²) *Program Studi Bahasa Inggris, FKIP, Universitas Widya Gama Mahakam, Indonesia
Jl. M. Yamin Samarinda, Samarinda, Kalimantan Timur
godefridus88@gmail.com*

ABSTRACT

Lecturers and students must be prepared to have technical knowledge and skills about easy applications and features that can accommodate online learning needs. It has been notified based on the researcher in pre research with the students. During the learning activities, the students find particular problems in learning online through SPADA as the LMS. However, they should know the system characteristic and functions to use the system effectively. Therefore, based on the background above, the researcher examined EFL students' perceptions of the SPADA as a learning management system. The objectives of this research study are to find out what are students' perception of SPADA UWGM as Learning Management System (LMS) in Widya Gama Mahakam Samarinda University. This study used qualitative research with case study approaches. The result showed that perception of using SPADA as the learning management system in the fifth semester of Class a English Education Department in Widya Gama Mahakam Samarinda University divided into three indicators of perception that are acceptance, understanding, and evaluation. Furthermore, from the student's perception of acceptance the students stated that online learning can be said to be an effective learning resource when supported by adequate infrastructure such as good networks and the SPADA as the Learning Management System but the students still have difficulties in acceptance the material with SPADA as the Learning Management System

Keywords: *LMS, Perceptions*

Introduction

Some educators are exploring the use of more technologies such as mobile technologies, Moodle, WebCT, or Blackboard to create a hybrid course (Rodriguez et al., 2008). Moreover, platforms during the pandemic are needed to facilitate the teacher delivering the material to students. Gilbert (2015) noted that online learning enables students to work at a time and place suitable to their learning needs. The benefit of e-learning in education today is that they provide an option in terms of time and place to access materials from lecturers. Students do not need to go to where the lecturers teach materials. E-learning provides an opportunity for students to monitor the success of learning independently. Moreover, with the application of online learning which is accommodated by several applications, it turns out students have

some problems and challenges faced. That way, the lecturer does not know the students' perceptions, problems, and challenges experienced when the lecturer using online learning in teaching and learning process.

According to Ranjit (2019), the important of knowing the students' perception is because perception is the process of how the information is acquired through the sensory receptor (e.g., eyes, ears, nose, and skin) which is transformed into a perception of what we think, see, hear, smell, taste or touch. Therefore, the way perception is an important thing to increase the lecturers' motivation to teach in the learning process, especially in online learning.

As we know, the learning system in Indonesia is still carried out with a manual system using simple conventional learning media such as books and whiteboards.

Therefore, educational technology began to develop CBT-based learning media, namely Computer Based Training which is interactive and flexible (Mukerji & Tripathi, 2014). The content in this software is the multimedia part that contains animated, visual, audio, and even other multimedia images. With the existence of this CBT, the teacher began to develop computer-based training media that were made according to the subject matter. In this case, Widya Gama Mahakam Samarinda University has facilitated this process with SPADA (Online Learning System).

SPADA is used as a means of remote learning that is flexible and distributed. SPADA is owned and managed by KEMENRISTEKDIKTI Indonesia. SPADA has three primary services: available materials, open courses, and online courses. These services can be accessed and used by anyone as needed. These services are available online and can be used offline. They start from compiling a syllabus / RPS, uploading material, giving assignments, receiving and responding to student work, making quizzes/tests, conducting assessments, monitoring student participation, and communicating/interacting with fellow lecturers and students directly (synchronous) or indirectly (asynchronously), either through video conferencing or online discussion/chat forums (Mahande, 2018). In addition, SPADA with its application requires infrastructure readiness and technical capabilities of the user. Therefore, lecturers and students must be prepared to have technical knowledge and skills about easy applications and features that can accommodate online learning needs. It has been notified based on the researcher in pra research with the students. During the learning activities, the students find particular problems in learning online through SPADA as the LMS. However, they should know the system characteristic and functions to use the system effectively. Therefore, based on the background above, the researcher examined EFL students' perceptions of the SPADA as a learning management system.

The objectives of this research study are to find out what are students' perception of SPADA UWGM as Learning Management System (LMS) in Widya Gama Mahakam Samarinda University. The result of this

research for the students is to promote motivation to learn using online learning and give additional knowledge and experience that the lecturers know about students' perception of online learning. This study also is planned to be published on Scopus journal

Research Methods

2.1. Research design

This research will use a qualitative approach with a case study design. This design is the right design to see students' perceptions about using SPADA as the learning management system during the Covid-19 pandemic. As explained by Creswell (2007), A case study is a qualitative research approach used to understand an issue or problem in a case. Case studies are research methods that aim to present a report to the reader about how it feels to be involved in an event and become part of it with the results of detailed and in-depth analysis of a case or circumstance under study (Khan, 2007).

2.2. Research Setting

The research would be conduct in the students of Widya Gama Mahakam Samarinda.

2.3. Population and sample

In qualitative research, selecting the sample is the process of selecting data small number of individuals for a study. Therefore, the individual chosen would help the researcher understand the perception about using online learning. The purpose is to select participants who would be good informants who can interpret their thoughts and communicate effectively with the researcher.

This research would be conducted in Widya Gama Mahakam University of Samarinda, which has been learned using online learning. In this research, the subjects would be selected with snowball sampling. In addition, the Snowball sampling technique is a technique that is used the first sample as information to find out the other samples that meet the criteria (Dewi et al., 2020).

2.4. Research Instrument

Based on this research approach, qualitative research, the researcher herself is the main instrument in this study; as quoted by Creswell (2013), the researcher is the one who collects the data by examining the documents. Besides, the researcher is not the only instrument. The researcher also uses another

tool, which is an in-depth interview. Wherefore the researcher would use a semi-structured interview and prepare the list of questions or interview guide that the researcher would ask the students.

2.5. Data Collection Technique

Since the study employed a case study method, this study applied in-depth interviews to collect the data (Creswell, 2017). On the other hand, the researcher would share information and communication online with WhatsApp application to help more accessible, and the researcher conducted this study between subjects in Covid-19 situation. However, the collective of data employed interview guidelines that contain several questions related to the study's objective. The researcher would classify every answer from the informant to finally know the result of the analysis.

Furthermore, before conducting this research, the researcher would create steps to make this structured study information about students' perception of the Learning Management System (SPADA) in online learning during pandemic Covid-19. The steps are as follows:

1. The researcher would start the interview using open-ended questions
2. The researcher would interview subjects one by one via WhatsApp
3. While in-progress interview, the researcher recorded the interview
4. The researcher would analyze the result of the interview
5. After the researcher got all the subjects' information, the researcher analyzed the transcript and coded it

2.6. Data Analysis Technique.

Data analysis is when the researcher systematically analyzes and arranges their data to increase their understanding of the data and present the result to others. After collecting the data, the researcher listened to the interview recording while writing the transcription to make the researcher easier to read and re-read the data. This study researcher used data analysis techniques (Miles et al., 2014). They consist of four concurrent flows of activity:

3.6.1. Data Collection

Data collection is the result of collecting data taken by the researcher. There

are some data included; in-depth interviews and other empirical materials. By condensing, make the data stronger. In this study, the researcher would ask subjects in the interview process. In doing the interview, the researcher prepared questions related to the student perception.

3.6.2. Data Reduction

Data reduction is reducing the data that was not related to the research questions. Therefore, important information must be taken, and unimportant information must be ignored. Data reduction is not something separate from the analysis. Data reduction means summarizing, choosing the important things, or focusing on the essential things in this study. In this case, the researcher would reduce some unrelated information that the researcher would group in coding. That information is about the primary students' perception of online learning during pandemic Covid-19.

3.6.3. Data Display

The third significant flow of analysis activity is data display. According to Milles et al. (2014), the data display includes matrices, graphs, charts, tables, and networks. All are designed to assemble organized information into an immediately accessible, compact form so that the analyst can see what is happening and either draw justified conclusions or move on to the next step of the analysis the display suggests may be useful.

3.6.4. Data Conclusion

The fourth stream of analysis activity is the conclusion. After all, data is found, the researcher concludes it. The data is then verified by double-checking all data collection, data reduction, and data display after collecting data. Moreover, in this case, the researcher can conclude data about student perception of online learning during Pandemic Covid-19.

3.7. Triangulation

In order to validate the data, the researcher used triangulation to check the accuracy of the findings through verification from two or more sources, according to Forbes (2013), examining evidence from sources and participants in the form of information. However, the strength of qualitative research is that there is much information collected and useful by another participant to secure the

weak information with other information. The purpose of triangulation is to increase the credibility and validity of the findings. Further, Denzin & Lincoln (2009) stated that there are four techniques in triangulation.

1. Method triangulation refers to the use of more than one method for gathering data. As is known in qualitative research, the researcher obtains data from interviews, observations, and documents to obtain valid data.
2. Inter-researcher triangulation is done by using more than one researcher in data collection. This technique is recognized to enrich the in-depth knowledge.
3. Data sources triangulation gathers the data with some strategies or methods in collecting data. For example, besides using interviews, the researcher can use another answer with another method, such as observation or questionnaire, and test.
4. Theory triangulation compares the formulation of relevant theoretical perspectives' information/ thesis statement to avoid the researcher's individual bias on the finding or conclusion generated. Besides, theory triangulation can increase the depth of understanding if the research data are able to dig in-depth theoretical knowledge on the results of the data obtained. Moreover, theory triangulation involves using more than one theoretical position in the interpretation of the phenomenon (Guion et al., 2011).

In addition, the researcher would use theory triangulation as the verified answer from the subject of this study because the data of this research would be interpreted using multiple theoretical from cole, 2021, and Rakhmanina et al., (2021) related to students' perception. Furthermore, the researcher would assess the data findings based on theories that apply in this research.

4.1 Research Findings

Answering the research problem in this researcher had done the research and obtained the complete data from all the instrument includes the interview. To gain the objective of the research, the data had been analyzed in order to provide meaningful interpretation. In finding students' perceptions, there are several

indicators to find out perception including: Acceptance, Understanding, Evaluation, and Responses and Future Solutions regarding SPADA as the Learning Management System itself. All that would be discussed following the results of interviews conducted by researcher on 6 students in five semesters which have been learned using SPADA as the Learning Management System.

4.1.1. Students' Perceptions of Acceptance SPADA as the Learning Management System at Widya Gama Mahakam Samarinda University.

In accepting material using SPADA, generates several responses that refer to the obstacles experienced by students when the lecturer applies online learning media. In this study, the researcher asked the indicator question: *Do you accept the material delivered by the lecturer properly when using LMS (SPADA)? Why?* Moreover, the response that can be viewed with code: **S1.4, S2.4, S3.4, S4.4, S5.4, S6.4**. For a description of the code, explaining that S1.4 is the first subject to answer question number 4 with an indication that number 4 is a question that asks about students' perceptions of acceptance of the LMS, and the code follows the question and the number of subjects such as S1 is the first subject S2 is the second subject S3 is the third subject S4 the 4th subject and so on.

Based on result of interview, the use of SPADA as the learning management system in online learning students are more difficult to accept material delivered by lecturers because some students need more explanation for the materials. This statement supported by result interview from: S1.4 said *"For assignments and materials using SPADA, sis, yes, in my opinion, having SPADA like my answer earlier, and is very helpful when collecting assignments, I don't have to input anywhere, so just using SPADA assignments and sending and receiving materials can be very helpful. easily accessible"*. And for the S4.4: *"Yes I can accept, because the lecturer gives the material and we as students just download it"*. From those result said they acceptance for the SPADA as the Learning Management System.

Despite another result was found in S2.4: *"It depends and returns to yourself*

whether you can understand or not, in my personal opinion, I don't understand because of the material given from the lecturer explained indirectly". And for the S3.4 said "Yes i can accept, but not for all lecturers, some only send through the group and then the assignments are collected collectively" and for S5.4 said "no, because of the lack of more explanation about the material in the Spada". From these statements show that the students already accept the SPADA as the LMS but they still found the difficulties to operate.

4.1.2. Students' Perceptions of Understanding SPADA as the Learning Management System at Widya Gama Mahakam Samarinda University.

In order to determine student's perspective of utilizing SPADA as a Learning Management System, the responder who answers the researcher's question should be familiar with SPADA. Because if the respondent does not comprehend, he or she is inevitably unable to provide an explanation or answer to the researcher's inquiries. However, in research conducted by researcher, 6 students meet the criteria used as subjects in this research. The intended criteria were students who follow the online learning using SPADA as the Learning Management System. In this study, the researcher asked the first question: "Is online learning you are able to know and understand the material easily with the LMS (SPADA)? Please explain"

In the research question above, students can provide answers to question raised by researcher. From the answers given by students have diversity have the same intention or understanding of SPADA itself. Among the student, responses can be seen in Appendices with code **S1.1, S2.1, S3.1, S4.1, S5.1, S6.1:**

S1.1: "Yes, I think it's very practical with the Spada assignments and the material provided by the lecturer is very practical so we can easily access it, besides that at first I needed to learn the system several times from the Spada, then read some of the steps or instructions given lecturer to us."

And the answer has same the intention with subject S2.1, S3.1, S4.1, S5.1, S6.1

S2.1: It can be understood because as a final year student, they are used to using SPADA

to fill in absenteeism, study schedules, and study the material that has been sent by the lecturer through SPADA, either in the form of files or learning videos.

S3.1: Fairly easy, can be understood with the instructions given from the lecturers.

S4.1: The material sent by the lecturer is in the form of a file so that we can download it and it's easy to learn

S5.1: quite good because using Spada lecturers can send material in various forms of media such as videos, voices, and files

From the results of the interview, it can be concluded that they already understand how to use SPADA as a learning system during online learning, from several answers it is also stated that students are very easy to use SPADA as an LMS during online learning. Moreover, the different result was found by the researcher in S6.1, the student S6 still difficult and have problems when use SPADA as the learning management system.

S6.1: "It is very difficult to understand because there are some lecturers who only provide material without opening a discussion session which of course causes students to become stuck."

In addition, based on students' answers to the question raised by researcher about students perception of use SPADA as the learning management system, it can be seen that their knowledge of online learning is no doubt meaning that students already understand how the rules and procedures in online learning with use SPADA as the learning management system In this indicator, the researcher asks the following questions: *Does using LMS (SPADA) motivate you to be more interested in following the learning process? Why?*

Based on the questions above, the following are students' responses regarding these questions that can be seen in the Appendices and the table of response students by looking at the code as follows: **S1.2, S2.2, S3.2, S4.2, S5.2, S6.2.** In this online learning, students feel interested to take part in online learning but on the other hand, there are also differences experienced by students as follows:

S1.2: Yes, it is very motivating because with the awareness, our tasks and how our task collection system feels easier

S2.2: Yes, because through SPADA I can find out new things from the learning system created by the campus.

S5.2: Actually, being aware of it makes online learning easier, but in my opinion, I prefer to meet face-to-face or virtual.

From the results of several student interview, they responded that SPADA is helpful for the students in making or submit their assignments, that makes a person more interested in following the teaching and learning process. Although there is one student who give different answers means they already understand but they still prefer to use directly class because they need interact with other students and the lecturers, overall, the answers given can be concluded that from online learning students feel more interested when using SPADA as the learning management system in following the learning process. In other words, the opposite result from the interview also found by the researcher on students **S3.2, S4.2, S6.2:**

S3.2: Not really, I like direct learning I think SPADA is also motivational but not too much

S4.2: To be interested, not only is it easier to get the material given by the lecturer

S6.2: Less, because there is little interaction between student learning and lecturers when using Spada.

From the responses above, it can be concluded that the SPADA not only has a positive impact has an experienced by students. Which are the students they more interest to learning as directly or offline classroom because it makes their motivate because they can meet as face to face or directly.

4.1.3. Students' Perceptions of Evaluation SPADA as the Learning Management System at Widya Gama Mahakam Samarinda University.

Advances in technology now bring up various kinds of media used in the learning process, one of which is the application of online learning. As felt by students of Class a English Education Department at Widya Gama Mahakam Samarinda University who have

implemented what is called online learning media. In this study, the researcher asked the indicator question: 5. *How do you respond when online learning is applied in all subjects than learning in the classroom/ face to face with the LMS(SPADA)?*

6. *How do you feel about using SPADA in online learning as the learning management system?*

7. *What obstacle did you face in using SPADA in online learning as the learning management system?* Furthermore, various student responses regarding their experience while participating in online learning are as follows:

From subject 1:

S1.5: I think it is more flexible because I can do assignments and reread the material that has been given, even though there are more interactions when offline or face-to-face learning.

S1.6: I feel quite helped and indeed with SPADA I can be more focused on doing my work.

S1.7: The problem is when you use the SPADA internet network, bro, so if you want to access the internet it's not fast enough, so if you want to get together, it's a difficult task. Besides that, the prefix to use SPADA is like you need extra guidance and direction for guidance in accessing SPADA.

From subject 2:

S2.5: My response is that I do not agree because students would not understand the learning provided by the lecturer if online learning is carried out for all subjects, except if conditions do not allow face-to-face meetings, then inevitably students must follow the rules given by the campus.

S2.6: My feeling in using the SPADA system is that I feel helped in lecturing activities, but on the other hand I still don't understand the material given by the Lecturer through the SPADA system because there is no direct explanation

S2.7: The problem that I found is that if the network does not support it, it would not be able to open, send assignments or perform attendance through the SPADA system. If you are late for attendance, you cannot make an attendance again because the time given is only limited. And if we forget the ID or password that has been created, we cannot enter the SPADA system from subject 3:

S3.5: Very good

S3.6: *Using Spada is very helpful in collecting assignments and it's not difficult*

S3.7: *On the network and data packets from subject 4:*

S4.5: *It's a bit difficult to understand the material, if offline it's easier to understand the material*

S4.6: *To use it is not too difficult because it's easy to send assignments in file form*

S4.7: *There are no problems from subject 5:*

S5.5: *Of course, this can cause setbacks in students, due to limited information and also a little discussion system*

S5.6: *Ordinary just*

S5.7: *Network and information in the form of limited material from subject 6*

S6.5: *Less effective learning should be done face to face*

S6.6: *Quite helpful when filling out attendance lists according to the course schedule every day*

S6.7: *When doing Video meetings are sometimes difficult to join so lecturers prefer to use zoom*

4.1.4. Students Perception of Solutions for SPADA as the Learning Management System Going Forward

From the results conducted by researcher found feedback student regarding SPADA solutions for the future, as follows:

S1.8: *"In my opinion, the system performance would be further developed and maintained so that it can be better than the previous one",*

S2. 8. *My solution is to always be on time when online learning takes place. Because SPADA has limited time, students are required to be on time and always monitor their respective SPADA system accounts so that there are no delays in sending assignments and daily attendance. And don't forget to always be ready to do lectures wherever and whenever, because sometimes there are lecturers who want to do lectures suddenly.*

S3.8: *The solution is to use Spada to make it more stringent in explaining the material and giving assignments according to offline learning*

S4.8: *The solution for online learning with SPADA is further expanded for use in it so that we are more comfortable using it*

S5. 8: *More advanced, can use virtual chat or virtual face-to-face which is more supportive*

S6.8: *Fixed the problem of using video meetings so that the learning process can be more effective.*

Based on the data above it can be concluded that the suggestions and expectations of students for SPADA in the future were in terms of infrastructure such as the provision of supporting networks, materials explanation and the quality of the applications used in online learning. In addition, the students also stated some suggestion such as the SPADA is already helpful students in online class. However, some tools or application in SPADA needs developed in their system.

4.2. Research Discussion

As Aparicio et al. (2016) which offers the scope of online learning, divides online learning into two main areas, learning, and technology where learning is the cognitive mechanism for knowledge achievement, and technology is the tool to help the process of knowledge achievement. Therefore, carrying out online learning mode is the safest choice. Online learning comprised two main elements, learning, and technology, where learning is the cognitive process to achieve information and knowledge while technology acts as a medium to enable the learning process (Aparicio et al., 2016).

Online learning can be delivered synchronously and asynchronously. Synchronous mode is when all distant participants are present at a specific organized time using web conferencing or video conferencing technology. While the asynchronous mode is delivered in a more flexible way where participants have the choice to access course materials anytime on their own need through electronic mails, message board forums, video, and audio recordings, and others (Wali & Popal, 2020). In addition, based on the result interview student more showed their positive perception Cole, et al (2021), stated that Positive perception describes all knowledge and responses that are continued with their utilization efforts. With the use of SPADA used by lecturer in online learning, students already recognize how to use and

benefit from SPADA as the learning management system.

In this online learning, students feel interested to take part in SPADA as the learning management system but on the other hand, there are also obstacles experienced by students. Moreover, they responded that SPADA is a system that makes a person more interested in following the teaching and learning process. Although there are one or two students who give different answers, overall the answers given can be concluded that the SPADA makes them interested but not really to motivate students because they prefer learning face to face than online learning (Rakhmanina et al., 2021).

In online learning, the interaction between lecturers and students, students and other students are woven through the SPADA as used in online learning. So, it can be said that in online learning, these applications can build interactions with lecturers and students to other students (Almeida and Simoes, 2019). The interaction occurs when students really pay attention and then respond when there are things that are not understood or unknown to what is explained by the lecturer. Furthermore, Interaction can be developed between lecturers, students, and other students when students are not indifferent to what is conveyed by the lecturer. Because interaction can be established when they can pay close attention to what is presented, not only by the lecturer but also by students who make a presentation (Rakhmanina et al., 2021).

In addition, the students also provide their solution based on their experienced use SPADA as the learning management system in online learning. Hopefully the solution can be reference to evaluate the SPADA as the learning management system in online learning. Meanwhile, the SPADA is already be a good facilitates to made learning directed and well designed in Widya Gama Mahakam Samarinda University.

Conclusion

Based on the result of interview, the researcher can conclude that students' perception of using SPADA as the learning management system in the fifth semester of Class a English Education Department in Widya Gama Mahakam Samarinda University

divided into three indicators of perception that are acceptance, understanding, and evaluation. Furthermore, from the student's perception of acceptance the students stated that online learning can be said to be an effective learning resource when supported by adequate infrastructure such as good networks and the SPADA as the Learning Management System but the students still have difficulties in acceptance the material with SPADA as the Learning Management System. Then for the student's perception of understanding use SPADA is students can motivate and interested students to improve their learning using online learning and generate new experiences for students themselves with use the SPADA as the Learning Management System. And for the last the student's perception of evaluation use SPADA the SPADA already helpful for the students in online learning but the students still have difficulties such as their unstable connection, and their need more explanation in operates the SPADA as the Learning Management System.

REFERENCES

- Alqahtani, M. (2015). The Importance of Vocabulary in Language Learning and How to be Taught. *International Journal of Teaching and Education*, III(3), 14. <https://doi.org/10.20472/TE.2015.3.3.002>
- Almeida, F., and Simoes, J. 2019. The Role of Serious Games, Gamification and Industry 4.0 Tools in the Education 4.0 Paradigm. *Contemporary Educational Technology*, 10 (2): 120–136
- Aparicio, M., Bacao, F., & Oliveira, T. (2016). Cultural Impacts on E-Learning Systems' Success. *Internet and Higher Education*, 31, 58–70. <https://doi.org/10.1016/j.iheduc.2016.06.003>
- Brown, A. V. (2009). Students' and Teachers' Perceptions of Effective Foreign Language Teaching: A Comparison of Ideals. *Modern Language Journal*, 93(1), 46–60. <https://doi.org/10.1111/j.1540-4781.2009.00827.x>
- Cavus, N. (2013). Selecting a Learning Management System (LMS) in Developing Countries: Instructors'

- Evaluation. *Interactive Learning Environments*, 21(5), 419–437. <https://doi.org/10.1080/10494820.2011.584321>
- Chung, E., Subramaniam, G., & Dass, L. C. (2020). Online Learning Readiness among University Students in Malaysia Amidst Covid-19. *Asian Journal of University Education*, 16(2), 45–58. <https://doi.org/10.24191/AJUE.V16I2.10294>
- Chung, C. H., Pasquini, L. A., & Koh, C. E. (2013). Web-Based Learning Management System Considerations for Higher Education. *Learning and Performance Quarterly*, 1(4), 24-37
- Cole, A. W., Lennon, L., & Weber, N. L. (2021). Student Perceptions of Online Active Learning Practices and Online Learning Climate Predict Online Course Engagement. *Interactive Learning Environments*, 29(5), 866–880. <https://doi.org/10.1080/10494820.2019.1619593>
- Cousin, G. (2005). Case Study Research. *Journal of Geography in Higher Education*, 8(15). <https://doi.org/10.1080/03098260500290967>
- Coates, H., James, R., & Baldwin, G. (2005). A Critical Examination of the Effects of Learning Management Systems on University Teaching and Learning. *Tertiary education and management*, 11, 19-36.
- Creswell, J. (2013). Qualitative, Quantitative, and Mixed Methods Approaches. In *Research design*.
- Creswell, J. W. (2007). Research Design: Qualitative, Quantitative and Mixed Method Approaches. *SAGE Publications*. <https://doi.org/10.4135/9781849208956>
- Creswell, J. W., & Creswell, J. D. (2017). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. Sage.
- Demartini, C., and Benussi, L. 2017. Do Web 4.0 and Industry 4.0 Imply Education X.0? *IT Professional*, 19 (3): 4–7.
- Denzin, N. K., & Lincoln, Y. S. (2009). Handbook of Qualitative Research. Sage Publication.
- Dewi, S. P., Ardana, I. K., & Sri Asri, I. G. A. A. (2020). Model Pembelajaran Snowball Throwing Berbantuan Media Audio Visual Terhadap Kompetensi Pengetahuan IPA. *Jurnal Penelitian Dan Pengembangan Pendidikan*, 4(2), 296. <https://doi.org/10.23887/jppp.v4i2.26435>
- El-Sheikh, E. M., Coffey, J. W., & White, L. J. (2008). Exploring the Use of Virtual Synchronous Sessions in an Online Foundational Programming Course. *Proceedings of the 2008 International Conference on Frontiers in Education: Computer Science and Computer Engineering, FECS 2008*, 395–401.
- Gallardo Echenique, E. E., Marqués Molías, L., & Bullen, M. (2015). Students in Higher Education: Social and Academic Uses of Digital Technology. *RUSC. Universities and Knowledge Society Journal*, 12(1), 25. <https://doi.org/10.7238/rusc.v12i1.2078>
- Gardner, R. M., & Brown, D. L. (2013). A Test of Contemporary Misconceptions in Psychology. Learning and Individual Differences. <https://doi.org/10.1016/j.lindif.2012.12.008>
- Gilbert, B. (2015). Online Learning Revealing the Benefits and Challenges. *Fisher Digital Publications Education*, 1–32. http://libguides.sjfc.edu/citations.%0Ahttp://fisherpub.sjfc.edu/education_ETD_masters/303
- Gonzalez, D., & St.Louis, R. (2018). Online Learning. *The TESOL Encyclopedia of English Language Teaching*, 1–6. <https://doi.org/10.1002/9781118784235.EELT0423>
- Green, H., & Hannon, C. (2007). Their Space: Education For a Digital Generation. *Young People Are Spending Their Time in a Space Which Adults Find Difficult to Supervise or Understand (DEMOS)*, 1–81.
- Heale, R., & Forbes, D. (2013). Understanding Triangulation in Research. In *Evidence-Based Nursing*. <https://doi.org/10.1136/eb-2013-101494>
- Hermens, A., & Clarke, E. (2018). Integrating Blended Teaching and Learning to Enhance Graduate Attributes. *Education + Training*, 51(5/6), 476–490.

- <https://www.emeraldinsight.com/doi/full/10.1108/00400910910987264>
- Jamil, F. M., & Hamre, B. K. (2018). Teacher Reflection in the Context of an Online Professional Development Course: Applying Principles of Cognitive Science to Promote Teacher Learning. *Action in Teacher Education*, 40(2), 220–236. <https://doi.org/10.1080/01626620.2018.1424051>
- Khan, M. A., Vivek, Nabi, M. K., Khojah, M., & Tahir, M. (2021). Students' Perception towards E-Learning during Covid-19 Pandemic in India: An Empirical Study. *Sustainability (Switzerland)*, 13(1), 1–14. <https://doi.org/10.3390/su13010057>
- Khan, O., & Burnes, B. (2007). Risk and Supply Chain Management: Creating a Research Agenda. *The International Journal of Logistics Management*, 7(13). <https://doi.org/10.1108/09574090710816931>
- Keller, C. (2009). User Acceptance of Virtual Learning Environments: A Case Study from Three Northern European Universities. *Communications of the Association for Information Systems*, 25(1), 38
- Lawton, S., & Taylor, L. (2020). Student Perceptions of Engagement in an Introductory Statistics Course. *Journal of Statistics Education*, 28(1), 45–55. <https://doi.org/10.1080/10691898.2019.1704201>
- Li, F. W. B., Lau, R. W. H., & Dharmendran, P. (2010). An Adaptive Course Generation Framework. *International Journal of Distance Education Technologies*, 8(3), 47–64. <https://doi.org/10.4018/jdet.2010070104>
- Mahande, R. D. (2018). Panduan Sistem Pembelajaran Daring (SPADA).
- Mahnegar, F. (2012). Learning Management System. *International Journal of Business and Social Science*, 3(12), 144–151.
- Michotte, A. (2017). The Perception of Causality. In *the Perception of Causality*. <https://doi.org/10.4324/9781315519050>
- Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative Data Analysis A Methods Sourcebook*. Sage.
- Nasution, A. K. P., & Ahmad, N. Q. (2020). Student Perceptions of Online Learning During the Covid-19 Pandemic. *Jurnal As-Salam*, 4(2), 195–204. <https://doi.org/10.37249/as-salam.v4i2.219>
- Pandey, S. R., & Pandey, S. (2009). Developing a More Effective and Flexible Learning Management System (LMS) for the Academic Institutions Using Moodle. *ICAL 2009 - Technology, Policy and Innovation*, 249–254.
- Poulsen, B. (2016). Kapitel 5 Semi Strukturerede Interviews. In *Metoder i samfundsvidenskaberne* (pp. 75–94).
- Paulsen, M. F. (2002). An analysis of Online Education and Learning Management Systems in the Nordic Countries. *Online Journal of Distance Learning Administration*, 5(3).
- Rakhmanina, L., Martina, F., Halolo, F. B., Syafryadin, S., & Noermanzah, N. (2021). Students' Perception on Online English Learning during Covid-19 Pandemic Era. *Silampari Bisa: Jurnal Penelitian Pendidikan Bahasa Indonesia, Daerah, dan Asing*, 3(2), 428–439. <https://doi.org/10.31540/silamparibisa.v3i2.1150>
- Ranjit, K. (2019). *Research Methodology: A Step-by-Step Guide for Beginners - Ranjit Kumar* - Google Books. In *SAGE*. https://books.google.co.uk/books/about/Research_Methodology.html?id=MKGVAgAAQBAJ&redir_esc=y
- Roberts, T., Jackson, C., Mohr-Schroeder, M. J., Bush, S. B., Maiorca, C., Cavalcanti, M., Craig Schroeder, D., Delaney, A., Putnam, L., & Cremeans, C. (2018). Students' Perceptions of STEM Learning after Participating in a Summer Informal Learning Experience. *International Journal of STEM Education*, 5(1). <https://doi.org/10.1186/s40594-018-0133-4>
- Rodriguez, M. C., Ooms, A., & Montañez, M. (2008). Students' Perceptions of Online-Learning Quality Given Comfort, Motivation, Satisfaction, and Experience. *Journal of Interactive Online Learning*, 7(2), 105–125.
- Sallum, S. A. (2008). Learning Management System Implementation - Building Strategic Change. *IMSCI 2008 - 2nd International Multi-Conference on*

- Society, Cybernetics and Informatics, Proceedings, 2, 279–282.
- Skaraki, E., Kalogiannakis, M., Ampartzaki, M., & Papadakis, S. (2018). Teaching Natural Science Concepts to Young Children with Mobile Devices and Hands-on Activities. A Case Study. *International Journal of Teaching and Case Studies*, 9(2), 171. <https://doi.org/10.1504/ijtc.2018.10011893>
- Sari, W. P., Pramesti, D., & Kusuma, A. I. (2020). Student's Perception of Online Learning in Pandemic. *Proceeding "International Webinar on Education 2020,"* 201–207.
- Sarwar, H., Akhtar, H., Naeem, M. M., Khan, J. A., Waraich, K., Shabbir, S., Hasan, A., & Khurshid, Z. (2020). Self-Reported Effectiveness of e-Learning Classes during COVID-19 Pandemic: A Nation-Wide Survey of Pakistani Undergraduate Dentistry Students. *European Journal of Dentistry*, 14, S34–S43. <https://doi.org/10.1055/s-0040-1717000>
- Stern, J. (2018). Introduction to Online Teaching and Learning. *International Journal of Science Education*, 3, 1–10. <https://doi.org/10.1002/9781118784235.eeltv06b>
- Sujarwo, S., Sukmawati, S., Akhiruddin, A., Ridwan, R., & Suharti Siradjuddin, S. S. (2020). An Analysis of University Students' Perspective On Online Learning in the Midst of Covid-19 Pandemic. *Jurnal Pendidikan Dan Pengajaran*, 53(2), 125. <https://doi.org/10.23887/jpp.v53i2.24964>
- Sund, K. J., & Bignoux, S. (2018). Can The Performance Effect be Ignored in The Attendance Policy Discussion? *Higher Education Quarterly*, 72(4), 360–374. <https://doi.org/10.1111/hequ.12172>
- Susila, H. R., Qosim, A., & Rositasari, T. (2020). Students' Perception of Online Learning in Covid-19 Pandemic: A Preparation for Developing a Strategy for Learning From Home. *Universal Journal of Educational Research*, 8(11B), 6042–6047. <https://doi.org/10.13189/ujer.2020.082240>
- Syakdiyah, A., Nurmahmudah, F., and Wijayanti, W. 2019. Active Learner Strategies in Era of Disruption: a Literature Review. In First International Conference on Progressive Civil Society, 317(IconProCS), 165–168.
- Wali, A. Z., & Popal, A. W. (2020). The Emerging Issues and Impacts of Technology in Classroom Learning. *International Journal of Emerging Technologies in Learning*, 15(15), 237–245. <https://doi.org/10.3991/ijet.v15i15.14175>
- Wang, L. T. (2020). A Visual Communication Study on the Perception of Motion for Computer Screen Animation. *Journal of Technology*, 35(1), 21–28.