Kasetsart Journal of Social Sciences 43 (2022) 699–706

Kasetsart Journal of Social Sciences

journal homepage: http://kjss.kasetsart.org

E-Learning implementation in law and civics department: A comprehensive evaluation from students', teachers', and parents' perspectives

I Gusti Ketut Arya Sunu

Education Administration Study Program, Postgraduate Program, Ganesha University of Education, Singaraja, Bali 8116, Indonesia

Article Info

Article history:
Received 24 March 2021
Revised 5 September 2021
Accepted 23 September 2021
Available online 27 July 2022

Keywords:
CIPP,
e-learning evaluation,
lecturers' responses,
parents' responses,
students' responses

Abstract

A comprehensive evaluation involving teachers, students, and parents is essential to ensure that e-learning is carried out effectively. This is because teachers, students, and parents are very important components in implementing the learning process. Thus, this study aimed to comprehensively evaluate the application of e-learning in the Law and Civics Department, Ganesha University of Education. This research was conducted using the Content Input Process Product (CIPP) evaluation theory. Data were collected using a questionnaire distributed to students, lecturers and parents. This study involved 235 students, 235 parents, and 19 lecturers. The researchers analyzed the data quantitatively by using descriptive statistical analysis. The evaluation results showed that the students and lecturers gave positive responses toward the application of e-learning. However, many parents gave negative responses toward e-learning implementation, especially from the process and product aspects. The detailed results of the evaluation from the students', lecturers', and parents' perspectives and the CIPP aspects are discussed in this article.

Introduction

Many researchers have proven that technology application provides many benefits to the instructional process. Santos et al. (2019) found that using ICT allows the students to easier communicate with teachers. The use of ICT has also been proven to make students feel happier learning (Ramírez-Rueda et al., 2021). Besides, ICT has been proven to increase students' satisfaction with the teaching and learning process (Al-Rahmi et al., 2020). By having these advantages, it is natural that ICT use in learning has also proven to improve student's academic achievements (Basri et al., 2018).

Evaluation studies are important to ensure that learning methods are good to use. For this reason, several researchers have conducted evaluation studies on the implementation of e-learning. Al-Fraihat et al. (2020) evaluated an e-learning system implemented in a UK university from a student perspective and found that most

E-mail address: arya.sunu@undiksha.ac.id.

https://doi.org/10.34044/j.kjss.2022.43.3.22
2452–3151/© 2022 Kasetsart University.

students were satisfied with the e-learning system used at that university. Zulfikar et al. (2019) conducted an e-learning evaluation from the student point of view by looking at students' activeness and involvement in the learning process. Furthermore, Barteit et al. (2020) researched the evaluation of e-learning implementation in low and middle-income countries. They conducted evaluation research using the systematic literature review (SLR) method and found that most of the evaluations were carried out by giving summative tests and questionnaires to students. The E-learning evaluation, which was also carried out using the SLR method, was also carried out by Rodrigues et al. (2019). They also found that previous studies evaluated e-learning by looking at students' behavior using the technology.

From previous studies, it can be seen that the evaluation of e-learning conducted by previous researchers focused on the implementation of e-learning from the student's point of view. However, from a holistic educational perspective, evaluating the teachers' and parents' perspectives is also vital. This is because teachers and parents have an important role in the success of the learning process and student achievement (Sunu, 2014; Uiterwijk-Luijk et al., 2019). Therefore, this study aimed to evaluate the implementation of e-learning in the Department of Law and Civics, Ganesha University of Education, from students', lecturers' and parents' perspectives. This research also evaluated the e-learning implementation using the CIPP evaluation theory to get more comprehensive data. The researchers expected that this study's results could provide a complete picture of the e-learning evaluation to be used as a reference for improving the quality of e-learning.

Literature Review

E-Learning

In a very simple way, e-learning can be defined as the process of using digital tools for learning (Wolfe & Cedillos, 2015). That definition has an emphasis on the use of digital tools. It means that when the teachers use digital tools to deliver the instruction it can be considered as e-learning. Nazim and Mukherjee (2016) explained that e-learning is a modern distance learning that utilizes the internet or intranet to deliver the students' materials. From those two definitions, it can be understood that e-learning is related to the use of electronic media in transferring learning materials or conducting teaching and learning processes, where the students do not need to meet the teacher in person. In this study, the researcher was more concerned with the definition given by Wolfe and Cedillos (2015) since the lecturer used various digital tools, not all of which were a standard application for instructional process, such as WhatsApp, Telegram, and Youtube.

CIPP

The Stufflebeam CIPP model contains four variables. These variables are context, input, process, and product (Stufflebeam, 2003). Those variables help the researcher to evaluate the e-learning in a more comprehensive way, since normally, e-learning is only evaluated from the process and product variables. Those four aspects have their own function that create a complete evaluation process. Contextual assessments help assess needs and opportunities in a defined context or environment. Input evaluation provides information to determine which resources are used to achieve the plan's objectives. Process evaluation focuses on the curriculum and the course teaching process. Product evaluation includes school performance. The product's focus is not to get students' grades, but the skills, attitudes, knowledge, learning, and abilities they have acquired, which students will use in their lives to benefit society. Some researchers have proven that CIPP is an effective educational evaluation theory (Warju, 2016). Thus, in this study, the researchers used CIPP evaluation theory to evaluate the implementation of e-learning in the Law and Civics Department.

Teachers and Parents Roles in Education

Teachers have a vital role in determining the students' achievement. Their quality will influence the students' success in studying (Fauth et al., 2019). Teachers' skills in conducting the instructional process will affect the instruction result and positively and significantly influence students' interaction during the teaching and learning process (Zulfikar et al., 2019).

Parents also have a significant role in the students' success in learning (Sunu, 2014). Therefore, involving parents to monitor their children has been proven to positively affect the students' academic achievement (Khajehpour & Ghazvini, 2011). Parents who always encourage and support their children by building good communication will help them succeed at school (Boonk et al., 2018). Thus, to ensure the education process's success, parents' role cannot be neglected.

Methodology

This study can be classified into descriptive survey research or a study conducted to determine specific characteristics of a group by delivering a written questionnaire of a large number of people (Fraenkel et al., 2012). This study was conducted at The Law and Civics Department, The Faculty of Law and Social Science, Ganesha University of Education, Singaraja, Indonesia. The samples of the study were chosen using a random sampling technique. This study involved the students, the lecturers, and the students' parents. The number of samples was taken based on the Bartlett et al. (2001) theory with a margin of error of 0.05. Since the total number of students in that department was 561, the appropriate number of samples was 235. For the students' parents, the same number of samples was also taken. There were 235 students' parents selected randomly as the study samples while for the lecturers, the number was 19 lecturers, all of whom were taken as samples of the study.

The data were taken by delivering questionnaires developed using CIPP evaluation theory. The questionnaire used the five-point rating scale. It means that the lowest score for each item is 1 (strongly disagree), and the highest score is 5 (strongly agree). There were 12 items for the context variable in the questionnaire, 10 items for the input variable, 12 items for the process variable, and 6 items for the product variable. The collected data were analyzed using descriptive statistics by using SPSS 22. Then, each CIPP aspect's mean score was categorized using a category table that was determined by using the theoretical ideal reference assessment theory by Nurkencana and Sunartana (1992). The ideal theoretical reference of measurement formula can be seen in Table 1 below.

Based on the Ideal Reference Assessment Criteria, the researchers determined the questionnaire results by consulting the category criteria shown in Table 2 below.

Table 2 provides the categories that were used in this study to classify the results of the questionnaire. The mean score for each aspect was categorized based on the interval for each aspect while the means score of all CIPP aspects was categorized using the interval for all CIPP aspects. By consulting Table 2, the researcher could determine the category for the students', lecturers', and parents' responses toward the implementation of the e-learning.

Table 1 The theoretical ideal reference assessment criteria

No	Interval	Category
1	(MI + 1.5 SDI) < X	Very Positive (VP)
2	(MI + 0.5 SDI) < X < (MI + 1.5 SDI)	Positive (P)
3	(MI – 0.5 SDI) < X < (MI + 0.5 SDI)	Somewhat positive (SP)
4	(MI – 1.5 SDI) < X < MI – 0.5 SDI)	Negative (N)
5	X (< MI – 1.5 SDI)	Very Negative (VN)

Note: MI = $^1/_2$ (ideal maximum score + ideal minimum score),
SDI = $^1/_6$ (ideal maximum score - ideal minimum score).

Table 2 The categories for the results of the questionnaire

Category	Each aspect of CIPP				All CIPP Aspects
	Context	Input	Process	Product	
VP	48 < X	40 < X	48 < X	24 < X	160 < X
P	40 < X < 48	33.3 < X < 40	40 < X < 48	20 < X < 24	133.3 < X < 160
SP	32 < X < 40	26.7 < X < 33.3	32 < X < 40	16 < X < 20	106.7 < X < 133.3
N	24 < X < 32	20 < X < 26.7	24 < X < 32	12 < X < 16	80 < X < 106.7
VN	X < 24	X < 20	X < 24	X < 12	X < 80

Note: VP : Very Positive
P : Positive
SP : Somewhat Positive
N : Negative
VN : Very Negative

Results and Discussion

The study's objective was to identify students', lecturers', and parents' responses toward the implementation of e-learning in the Law and Civics Department. In this section, there is information about the study findings and discussion related to students', lecturers,' and parents' responses toward the implementation of e-learning in the Law and Civics Department.

The Students' Responses

This study found that students positively responded to the e-learning implementation in the Law and Civics Department. This can be seen from the results of the descriptive statistics, which showed that the mean score of student responses was 143.57 (positive). Most students (91.7%) gave positive responses to the implementation of e-learning. However, some students (6%) gave negative scores, and some other students (2.5%) only gave quite positive responses to the implementation of e-learning. The data obtained found that very few students (0.43%) gave very positive responses.

When viewed in detail from each aspect, namely context, input, process, and product, the questionnaire results show varied results. In terms of context, student responses were categorized as positive. These results can be seen from the average value of students' responses from the context aspect that was 43.77. Students' responses were also categorized as positive for the input aspect, with a mean score of 36.14. A positive result was also found for the process aspect, as indicated by the mean score of the questionnaire that was 42.54. A similar finding was also found for the product aspect, where students gave positive responses. This can be seen from the results of the questionnaire, which showed a mean score of 21.12. The descriptive statistical analysis of students' responses to e-learning implementation can be seen in Table 3.

From the data analysis results as is shown in Table 3, especially the mean score of each aspect, this study confirmed that the students had a positive response toward e-learning. Students' positive response indicates students' readiness for e-learning since readiness influences their responses toward the implementation of e-learning for e-learning (Muthuprasad et al., 2021). This is supported by the fact that students' readiness for e-learning is shaped by the availability of quality internet connections, students' ability to use mobile technologies, and availability of mobile devices to support e-learning (Küsel et al., 2020). Considering the availability of mobile devices and an internet connection, the Law and Civics Department students had no problem with those two aspects as all students had smartphones, and the Indonesian government provides a free internet connection for university students.

Even though most of the students gave positive responses toward e-learning, some students still negatively responded to it. They gave negative responses on the process and product aspects. Since the students were accustomed to face-to-face instruction during e-learning implementation, some students preferred to have face-to-face instruction compared to e-learning (Aguilera-Hermida, 2020). For some students, e-learning is more challenging than face-to-face instruction (Tuma et al., 2021). Thus, the lecturers as the designer of the e-learning need to make sure that the e-learning is more flexible so that the students do not feel it is more difficult than face-to-face instruction.

The Lecturers' Responses

In general, the lecturers had a positive response toward e-learning in the instructional process. This was clearly shown by the mean score of the questionnaire, which was 157.68. From the frequency of the responses, it can be seen that most of the lecturers (84.21%) had positive responses, and some lecturers (15.79%) had very positive responses. Separately, from the context, input, process, and product variables, the lecturers had very positive responses towards input and process variables, and they had positive responses to context and product variables. The mean score of each variable, the standard deviation, the minimum score, and the maximum score of the lecturers' responses can be seen in Table 4.

Table 3 Descriptive statistical analysis results for students' responses

Descriptive Statistics	Each aspect of CIPP				All CIPP Aspects
	Context	Input	Process	Product	
Mean	43.77	36.14	42.54	21.12	143.57
Standard Deviation	5.41	4.82	5.74	2.83	18.68
Max	58.00	49.00	59.00	29.00	195.00
Min	20.00	16.00	19.00	10.00	65.00

Table 4 Descriptive statistics results for lecturers' responses

Descriptive Statistics	Each Aspect of CIPP				All CIPP Aspects
	Context	Input	Process	Product	
Mean	47.37	40.63	49.53	20.16	157.68
Standard Deviation	1.46	1.61	2.09	1.50	3.38
Max	50.00	43.00	53.00	23.00	164.00
Min	44.00	36.00	46.00	17.00	150.00

As the designers of e-learning, teachers have a vital role in educational process success. The same also goes for the success of e-learning, where teachers' readiness will influence the success of e-learning implementation (Alqahtani & Rajkhan, 2020). Moreover, teachers' responses toward the implementation of e-learning indicate teachers' readiness for e-learning (Scherer et al., 2021). Thus, the lecturers' positive responses in this study indicate that they are ready to implement e-learning. Furthermore, this readiness cannot be separated from the institution's efforts by providing the regulation, free internet connection, specific learning management system (LMS) for the lecturers, and specific training to use the LMS.

The Parents' Responses

In general, students' parents had a somewhat positive response toward e-learning at the Law and Civics Department. This can be seen from the result of the questionnaire. The parents' mean score was 126.65, and that was categorized as somewhat positive. Specifically, 5.96 percent of parents had negative responses toward the implementation of e-learning while 86.81 percent of them had somewhat positive responses, and only 7.23 percent had positive responses.

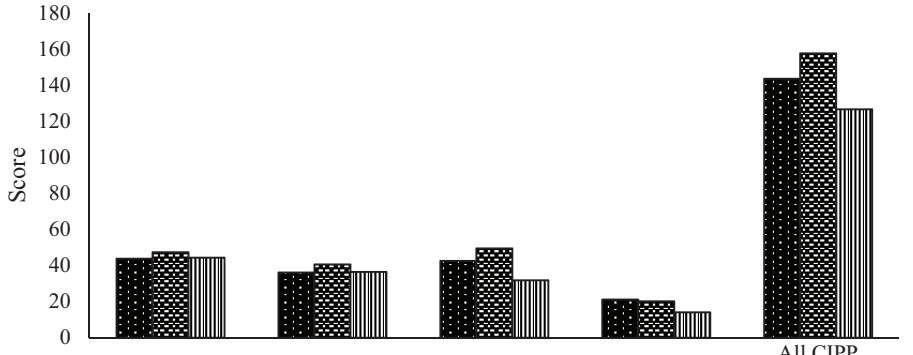
The parents ' responses were varied from the context, input, process, and product variables. The parents had positive responses toward the context variable. This can be seen from the score of the context variable, which was 44.35. For the input variable, the parents gave positive responses with a mean score of 36.45 while for the process variable, they gave somewhat positive responses with a mean score of 31.80, and for the product variable, they gave negative responses with a mean score of 14.03. The descriptive statistical results for the parents' responses can be seen in Table 5 below.

This study showed that most parents did not give positive responses toward the implementation of e-learning, especially for the process and product aspects. Theoretically and empirically, parents have a great role in the education process's success (Sunu, 2014; Uiterwijk-Luijk et al., 2019). Parent support has also been proven to influence the students' achievement (Sulaiman et al., 2020). More importantly, using e-learning means that the students should study from their homes and be supervised by their parents (Abuhammad, 2020). Thus, some revisions on the implementation of e-learning need to be done to fulfill the parents' expectations and ensure that parents support the implementation of e-learning.

Furthermore, from the comparison of the students, lecturers, and parents' mean scores toward the implementation of e-learning from the context, input, process, and product, we can see that the lecturers are the ones who had the most positive responses toward the implementation of e-learning. The lecturers had a higher score in all CIPP aspects than the students and parents. The students' responses were in the second position. In comparison, the parents' responses were in the third position. Figure 1 shows the comparison of the students', lecturers', and parents' responses.

Table 5 Descriptive statistical analysis for parents' responses

Descriptive Statistics	Each Aspect of CIPP				All CIPP Aspects
	Context	Input	Process	Product	
Mean	44.35	36.46	31.81	14.03	126.65
Standard Deviation	3.17	2.77	4.06	2.50	8.34
Max	58.00	49.00	38.00	21.00	153.00
Min	34.00	27.00	20.00	12.00	97.00



	Context	Input	Process	Product	All CIPP Aspects
Students' Responses	43.77	36.14	42.54	21.12	143.57
Lecturers' Responses	47.37	40.63	49.53	20.16	157.68
Parents' Responses	44.35	36.46	31.81	14.03	126.65

Figure 1 The comparison of the students', lecturers', and parents' responses

From the data in Figure 1, we can see that lecturers are the ones who had the highest scores for each aspect, followed by the students, and by the parents. It seems that the lecturers and the students were ready for the e-learning process. That finding is supported by the previous studies that confirmed lecturers and students were ready for online learning even when they had limited preparation (Aguilera-Hermida, 2020; Muthuprasad et al., 2021; Scherer et al., 2021). Since many parents were not accustom to online learning, they were the ones who were not really satisfied with the online learning implementation (Abuhammad, 2020; Iivari et al., 2020).

Most previous studies on e-learning evaluation were only concerned with the technology and users' aspects. For instance, the study conducted by Al-Fraihat et al. (2020), did e-learning evaluation from the technology, students, and teachers aspects. Yawson and Yamoah (2020) and Aguilera-Hermida (2020) did a study that evaluated e-learning from the students' perspective only. Scherer et al. (2021) only viewed the implementation of e-learning from the teachers' point of view. Thus, the difference of this study compared to the previous studies is that this study tried to evaluate the implementation of e-learning from three different perspectives, the students', lecturers', and parents' perspectives because in education, the role of parents cannot be neglected (Sunu, 2014; Uiterwijk-Luijk et al., 2019).

Conclusion

From the study results, we can understand that many parents did not give positive responses toward e-learning, especially from the process and product aspects. Thus, it means that the institution needs to make some efforts to ensure that e-learning is as effective as face-to-face instruction. Besides, since some students also did not give positive responses toward the implementation of e-learning, the lecturers should make sure that e-learning is not more challenging than face-to-face instruction. Thus, lecturers' ability in designing e-learning needs to be improved through more profound training. Furthermore, the parents' and the students' negative responses need to be studied further to collect students' and parents' specific problems. The result of such study is important in order to determine the things that need to be revised to improve the quality of the e-learning. In other words, this study concluded that in implementing e-learning, the schools need to build good communication with the students' parents so that they understand about the implementation of the e-learning. If the parents understand the implementation of e-learning and its benefit, their response will be better, and they can give better support for their children to study. This is crucial since parents' support is a mandatory in ensuring the success of a learning process.

Conflict of Interest

There is no conflict of interest.

References

Abuhammad, S. (2020). Barriers to distance learning during the COVID-19 outbreak: A qualitative review from parents' perspective. *Heliyon*, *6*(11), e05482. https://doi.org/10.1016/j.heliyon.2020.e05482

Aguilera-Hermida, A. P. (2020). College students' use and acceptance of emergency online learning due to COVID-19. *International Journal of Educational Research Open*, *1*, 100011. https://doi.org/10.1016/j.ijedro.2020.100011

Al-Fraihat, D., Joy, M., Masa'deh, R., & Sinclair, J. (2020). Evaluating e-learning systems success: An empirical study. *Computers in Human Behavior*, *102*, 67–86. https://doi.org/10.1016/j.chb.2019.08.004

Al-Rahmi, W. M., Alzahrani, A. I., Yahaya, N., Alalwan, N., & Kamin, Y. B. (2020). Digital communication: Information and communication technology (ICT) usage for education sustainability. *Sustainability (Switzerland)*, *12*(12), 1–18. https://doi.org/10.3390/su12125052

Alqahtani, A. Y., & Rajkhan, A. A. (2020). E-learning critical success factors during the covid-19 pandemic: A comprehensive analysis of e-learning managerial perspectives. *Education Sciences*, *10*(9), 1–16. https://doi.org/10.3390/educsci10090216

Barteit, S., Guzek, D., Jahn, A., Bärnighausen, T., Jorge, M. M., & Neuhann, F. (2020). Evaluation of e-learning for medical education in low- and middle-income countries: A systematic review. *Computers & Education*, *145*, 103726. https://doi.org/10.1016/j.compedu.2019.103726

Bartlett, J. E., Kotrlik, J. W., & Higgins, C. C. (2001). Organizational research: Determining appropriate sample size in survey research. *Information Technology, Learning, and Performance Journal*, *19*(1), 43–50.

Basri, W. S., Alandejani, J. A., & Almadani, F. M. (2018). ICT adoption impact on students' academic performance: Evidence from Saudi universities. *Education Research International*, *2018*, 1240197. https://doi.org/10.1155/2018/1240197

Boonk, L., Gijselaers, H. J. M., Ritzen, H., & Brand-Gruwel, S. (2018). A review of the relationship between parental involvement indicators and academic achievement. *Educational Research Review*, *24*, 10–30. https://doi.org/10.1016/j.edurev.2018.02.001

Fauth, B., Decristan, J., Decker, A.-T., Büttner, G., Hardy, I., Klieme, E., & Kunter, M. (2019). The effects of teacher competence on student outcomes in elementary science education: The mediating role of teaching quality. *Teaching and Teacher Education*, *86*, 102882. https://doi.org/10.1016/j.tate.2019.102882

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). *How to design and evaluate research in education*. McGraw-Hill.

Iivari, N., Sharma, S., & Ventä-Olkkonen, L. (2020). Digital transformation of everyday life – How COVID-19 pandemic transformed the basic education of the young generation and why information management research should care? *International Journal of Information Management*, *55*, 102183. https://doi.org/10.1016/j.ijinfomgt.2020.102183

Khajehpour, M., & Ghazvini, S. D. (2011). The role of parental involvement affect in children's academic performance. *Procedia - Social and Behavioral Sciences*, *15*, 1204–1208. https://doi.org/10.1016/j.sbspro.2011.03.263

Küsel, J., Martin, F., & Markic, S. (2020). University students' readiness for using digital media and online learning—Comparison between Germany and the USA. *Education Sciences*, *10*(11), 1–15. https://doi.org/10.3390/educsci10110313

Muthuprasad, T., Aiswarya, S., Aditya, K. S., & Jha, G. K. (2021). Students' perception and preference for online education in India during COVID -19 pandemic. *Social Sciences & Humanities Open*, *3*(1), 100101. https://doi.org/10.1016/j.ssaho.2020.100101

Nazim, M., & Mukherjee, B. (2016). Chapter 6 - Knowledge management tools for libraries. M. Nazim, & B. Mukherjee (Eds.), *Knowledge management in libraries concepts, tools and approaches* (pp. 115–148). Chandos Publishing. https://doi.org/10.1016/B978-0-08-100564-4.00006-5

Nurkencana, W., & Sunartana, P. P. (1992). *Education evaluation*. Usaha Nasional.

Ramírez-Rueda, M. del C., Cózar-Gutiérrez, R., Roblizo Colmenero, M. J., & González-Calero, J. A. (2021). Towards a coordinated vision of ICT in education: A comparative analysis of Preschool and Primary Education teachers' and parents' perceptions. *Teaching and Teacher Education*, *100*, 103300. 10.1016/j.tate.2021.103300

Rodrigues, H., Almeida, F., Figueiredo, V., & Lopes, S. L. (2019). Tracking e-learning through published papers: A systematic review. *Computers & Education*, *136*, 87–98. https://doi.org/10.1016/j.compedu.2019.03.007

Santos, H., Batista, J., & Marques, R. P. (2019). Digital transformation in higher education: The use of communication technologies by students. *Procedia Computer Science*, *164*, 123–130. https://doi.org/10.1016/j.procs.2019.12.163

Scherer, R., Howard, S. K., Tondeur, J., & Siddiq, F. (2021). Profiling teachers' readiness for online teaching and learning in higher education: Who's ready? *Computers in Human Behavior*, *118*, 106675. https://doi.org/10.1016/j.chb.2020.106675

Stufflebeam, D. L. (2003). The CIPP model for evaluation. In T. Kellaghan, D. L. Stufflebeam, & L. A. Wingate (Eds.), *International handbook of educational evaluation* (9th ed., pp. 31–62). Kluwer Academic Publishers.

Sulaiman, N. F. C., Akhir, N. H. M., Hussain, N. E., Jamin, R. M., & Ramli, N. H. (2020). Data on the impact of socioeconomic status on academic achievement among students in Malaysian public universities. *Data in Brief*, *31*, 106018. https://doi.org/10.1016/j.dib.2020.106018

Sunu, A. (2014). *Classroom management application in the learning process in formal education*. Media Akademi.

Tuma, F., Nassar, A. K., Kamel, M. K., Knowlton, L. M., & Jawad, N. K. (2021). Students and faculty perception of distance medical education outcomes in resource-constrained system during COVID-19 pandemic. A cross-sectional study. *Annals of Medicine and Surgery*, *62*, 377–382. https://doi.org/10.1016/j.amsu.2021.01.073

Uiterwijk-Luijk, L., Krüger, M., Zijlstra, B., & Volman, M. (2019). Teachers' role in stimulating students' inquiry habit of mind in primary schools. *Teaching and Teacher Education*, *86*, 102894. https://doi.org/10.1016/j.tate.2019.102894

Warju, W. (2016). Educational program evaluation using CIPP Model. *Innovation of vocational technology education*, *12*(1), 36–42. https://doi.org/10.17509/invotec.v12i1.4502

Wolfe, C. R., & Cedillos, E. M. (2015). E-communications platforms and e-learning. In C. R. Wolfe (Ed.), *International encyclopedia of the social & behavioral sciences* (2nd ed., pp. 895–902). Elsevier. https://doi.org/10.1016/B978-0-08-097086-8.41022-6

Yawson, D. E., & Yamoah, F. A. (2020). Understanding satisfaction essentials of E-learning in higher education: A multi-generational cohort perspective. *Heliyon*, *6*(11), e05519. https://doi.org/10.1016/j.heliyon.2020.e05519

Zulfikar, A. F., Muhidin, A., Pranoto, Suparta, W., Trisetyarso, A., Abbas, B. S., & Kang, C. H. (2019). The effectiveness of online learning with facilitation method. *Procedia Computer Science*, *161*, 32–40. https://doi.org/10.1016/j.procs.2019.11.096