

World Journal on Educational Technology: Current Issues



Volume 13, Issue 3, (2021) 437-449

www.wj-et.eu

How elementary school teachers organized online learning during the Covid-19 Pandemic?

Herwin Herwin ^{a*}, Faculty of Education, Universitas Negeri Yogyakarta, Yogyakarta, 55281, Indonesia, https://orcid.org/0000-0002-8882-5087

Agung Hastomo b, Faculty of Education, Universitas Negeri Yogyakarta, Yogyakarta, 55281, Indonesia, https://orcid.org/0000-0001-8948-4547

Bambang Saptono ^c, Faculty of Education, Universitas Negeri Yogyakarta, Yogyakarta, 55281, Indonesia, https://orcid.org/0000-0003-3571-1059

Amalia Rizki Ardiansyah ^d, Faculty of Education, Universitas Negeri Yogyakarta, Yogyakarta, 55281, Indonesia, https://orcid.org/0000-0003-2907-6052

Setiawan Edi Wibowo ^e, Faculty of Education, Universitas Negeri Yogyakarta, Yogyakarta, 55281, Indonesia, https://orcid.org/0000-0001-5309-044X

Suggested Citation:

Herwin, H., Hastomo, A., Saptono, B., Ardiyansyah, A. R., & Wibowo, S. E. (2021). How elementary school teachers organized online learning during the Covid-19 Pandemic? *World Journal on Educational Technology: Current Issues.* 13(3), 437-449. https://doi.org/10.18844/wjet.v13i3.5952

Received from March 02, 2021revised from; May 15, 2021, accepted from; 13 July, 2021. Selection and peer review under responsibility of Prof. Dr. Servet Bayram, Yeditepe University, Turkey. ©2021 United World Center of Research Innovation and Publication. All rights reserved.

Abstract

This study aims to analyze the organization of online learning from teachers during the Covid-19 pandemic. This research is a qualitative research with a phenomenological approach. The research subjects were elementary school teachers. Data were collected through interviews and documentation. Data analysis is done through data condensation, data presentation and verification. The results show that online learning is based on a simplified curriculum with the selection of essential competencies that are considered very important to be conveyed to students. The lesson plans are arranged in a simpler way with sections that always appear, namely learning objectives, learning activities and assessments. Synchronous learning relies more on Zoom. Asynchronous learning variations are carried out with Google Classroom to form independent and student-centered learning. Strengthening student understanding is done by providing feedback through the WhatsApp application because it is considered more flexible, responds quickly, is simple and easy to run on students' smartphones.

Keywords: Covid-19 Pandemic, elementary school, online learning;

^{*} ADDRESS FOR CORRESPONDENCE: Herwin, Herwin, Faculty of Education, Universitas Negeri Yogyakarta, Yogyakarta, 55281, Indonesia

1. Introduction

The Indonesian government has issued a policy that the learning period from home will continue in 2021. This certainly has a very broad impact, especially on aspects of education in Indonesia (Aini et al., 2020; Herwin et al., 2020; Rahardjo & Pertiwi, 2020). This situation forces teachers to educate their students through online learning-based distance learning (Yulia, 2020). Learning is directed to a knowledge transfer system using the support of the internet network through video, audio, images, text communication and software (Basilaia & Kvavadze, 2020; Wati & Yuniawatika, 2020). Currently there is a dilemma of the transition from traditional learning to digital learning. In fact, what has become a phenomenon with this situation is that the duration of learning tends to be shortened compared to usual. Based on this, the question arises that what should we pay attention to? Of course it is realized that the renewal of the learning system will have an impact on the renewal of learning strategies in general and activities to organize learning specifically.

Distance learning has been the main choice since the pandemic hit Indonesia even in general in the world. This is an educational practice where teachers and students are separated by space so that the learning process uses various resources by utilizing Information and Communication Technology (Chun et al., 2016; Nguyen, 2021). Some things that are highlighted, such as teachers must have a good understanding of IT in addition to understanding pedagogy both theoretically and practically. Information and communication technology is a very important component in the strategy of organizing distance learning. These educational technologies can replace direct teacher-student interactions and help convey learning objectives in remote situations (Kusmawan & Belawati, 2010; Rahman, 2014). The development of technology must be used by teachers to develop pedagogical competences and increase students' understanding(Adepoju & Nwulu, 2020; Budiaman et al., 2021; Riahi & Riahi, 2018).

Previous findings have shown that not all students are able to understand well the material presented online. On another aspect, not all teachers have sufficient abilities to apply technology in their learning and the difficulty of teachers in controlling student learning activities (Efriana, 2021). Organizing learning during the Covid-19 pandemic has become a serious problem in the learning activities itself. This situation requires teachers to find innovative ways to ensure learning activities run effectively (Adeoye, 2020; Al-Hunaiyyan & Alhajri, 2021; Gay, 2016). Particularly related to the presentation of learning which remains meaningful even though it is carried out from home. In normal situations, learning organization sometimes still leaves unsolved problems. Especially in a pandemic situation where all learning activities must be done remotely online.

Another thing to consider is that the conditions and backgrounds of students are very diverse both economically, culturally, and in family education and the inclusion of IT variables is a problem for teachers in carrying out their learning. This is supported by one of the findings which shows that some parents and students have difficulty with computers or Android devices so that it becomes a challenge for teachers in organizing learning activities (Wahab & Iskandar, 2020). Another finding is that some students live in remote rural areas that are not well covered by the internet so that their cellular networks are sometimes unstable due to good geographic location (Nashruddin et al., 2020). Some of these things are common problems that are often encountered in the field and affect the implementation of the organizing strategies used by teachers.

Learning strategies are special patterns or combinations of various learning activities carried out by teachers and students to achieve goals which are an important component in the success of learning (Dumford et al., 2016; Surur et al., 2020). When discussing the problem of action and a series of activities, there is the potential for variations to arise in the series of activities. The variation that is meant in this case is the action between one teacher and another allows variation. A teacher can carry

out a series of activities in his own way but still refers to scientific principles. The hope is that the series of activities will have an impact on the achievement of predetermined learning objectives.

A pandemic situation has the potential to generate a variety of learning strategies that can be carried out by teachers in carrying out their learning. Especially with long-distance conditions, of course, have an impact on discussion and supervision of learning that cannot be as intensive as when in normal conditions. This is the basis for researchers to conduct an analysis of the organization of learning carried out by teachers during the Covid-19 pandemic in Sleman Regency. This is considered very important to obtain information on learning patterns during the Covid-19 pandemic. Another hope is that we hope to get information regarding what has been a success so far and what still needs to be improved in the future. This study aims to analyze the learning organizing strategies of elementary school teachers during the Covid-19 pandemic

2. Methods

This study uses a qualitative approach with a transcendental phenomenology type. This is done with the aim of describing the phenomenon as it is based on the apparent reality to obtain solutions. This phenomenon is a process of learning in elementary schools during the Covid-19 pandemic. This research was conducted in elementary schools in Sleman, Yogyakarta. The subjects of this study were elementary school teachers who were selected purposively.

Data collection conducted in this study using interview techniques, questionnaires and documentation. Interviews were conducted as the main data collection technique to obtain information related to the implementation of learning strategies by teachers during the Covid-19 pandemic. The questionnaire was conducted to support the interview data. In addition, data collection in the form of documentation was also carried out to obtain supporting data that could corroborate the findings in the interview results. The data analysis technique used in this research is qualitative analysis. Activities in data analysis, namely data condensation, data presentation, and verification of data to draw conclusions (Miles et al., 2018).

3. Findings and Discussion

The results of this study describe several topics that are the focus of this research, including: the use of curriculum during online learning, preparation of lesson plans, and presentation of learning. The results of the research are then condensed through the discovery subthemes on the themes found for each topic discussed. Furthermore, these subthemes become one another to obtain conclusions on each topic. Each of the topics discussed is presented in more detail as follows.

3.1 The Use of Curriculum During Online Learning

The curriculum is one aspect of the running of the education system. The curriculum becomes important, especially for the achievement of educational goals. When the Covid-19 pandemic hit almost all countries including Indonesia, at that time there was also a very significant change in the situation in social life. This change also includes changes in the pattern of education delivery where learning takes place remotely through the integration of technology in the form of online learning. Therefore, major changes that occur in the education system must be followed by adjustments to the curriculum applied in schools.

All teachers stated that the use of the curriculum remained the basis for achieving learning objectives despite a very significant change in the situation. These results indicate that teachers remain guided by a certain curriculum in organizing online learning activities in their classrooms. Based on the results of data analysis on the use of curriculum in online learning, three sub-themes were found, namely the

application of the national curriculum, the application of the emergency curriculum, and the application of the independent curriculum. The results are described in detail as follows.

Table 1. The use of curriculum during online learning

No	Sub-theme	Correlation between Sub-theme
1.	Teachers still refer to the national curriculum (2013 Curriculum), but in their implementation they simplify the indicators of competency achievement that are considered the most important to be conveyed.	The teacher applies a simplified curriculum through the selection of essential competencies for students.
2.	Teachers apply the emergency curriculum (under special conditions) prepared by the Ministry of Education and Culture which is a simplification of the national curriculum.	
3.	The teacher applies an independent curriculum through simplification of competencies that is carried out by himself based on consideration of the surrounding situation and the needs of his students.	

Table 1 presents the findings obtained on the topic of curriculum use during online learning. These findings indicate that something very different before the Covid-19 Pandemic was that the content or competencies contained in the national curriculum could not be conveyed in its entirety. This is the impact of a sudden transition between face-to-face offline learning to online learning based on the integration of information technology in learning activities. Based on the presentation of the subthemes found to the correlation process between the sub-themes, it can be concluded that online learning carried out by teachers during the Covid-19 pandemic is guided by a simplified curriculum through the selection of essential competencies for students.

The changing situation caused by the Covid-19 Pandemic can provide time for teachers to re-analyze several components in the education system including the curriculum, besides the integration of technology in learning activities plays a key role in educating future generations (Luthra & Mackenzie, 2020; Yulia, 2020). This is why teachers have to adapt online learning with their students to new situations. Schools as educational institutions must provide alternative education for students in carrying out the educational process and achieving its goals (Abidah et al., 2020). Simplification of content has become an agreed thing to do because of adjustments to the conditions. Online distance learning has an impact on learning time that cannot be equated with face-to-face learning. Online learning presents challenges especially in student engagement and time management so that teachers must design learning effectively (Goodson et al., 2015).

The research findings show that during the implementation of online learning during the pandemic, teachers are given the opportunity to simplify curriculum components by choosing competencies that are considered essential for their students. On the one hand, these efforts are a way to adapt learning to the situation, but on the other hand it must be realized that most teachers do not have an academic background on curriculum studies (Melati & Utanto, 2016; Palupi, 2018; Siambaton et al., 2016; Subekti et al., 2016; Sutrisno et al., 2017). This is certainly an evaluation for all how teachers can adjust the curriculum as well as possible with the changing pandemic situation and integrate ICT in learning activities.

3.2 Preparation of Lesson Plans in Online Learning

Lesson plan is one of the most important aspects in learning activities. Systematic learning activities should be supported by good planning. In any situation the teacher is obliged to make learning preparations for the achievement of the learning objectives that have been set. The pandemic situation

which has also changed various components of education has an impact on significant changes for teachers in planning their learning.

All teachers stated that the lesson plan was still being developed during online learning. Although there is a shift in learning activities from conventional face-to-face to distance learning by utilizing digital technology, teachers still make plans before carrying out learning activities together with their students. It's just that the way they do it shows various variations. Based on the results of the analysis of the data on the preparation of lesson plans in online learning, four sub-themes were found, namely the preparation of lesson plans through the teacher working group forum (teacher working groups in Indonesia known as KKG), the preparation of lesson plans facilitated by educational foundations, the preparation of lesson plans that coordinated by the school unit and the preparation of lesson plans independently by the teacher. The findings are presented in detail in the following table.

Table 2. Preparation of lesson plans in online learning

No	Sub-theme	Correlation between
		Sub-theme
1.	The teacher prepares a lesson plan through the KKG forum that has been formed according to the area where the school is located. Lesson plans are discussed and developed at the forum, then the results are used jointly in each online learning activity for each teacher.	Teachers compile and develop lesson plans for online learning, both through coordination and independently.
2.	Lesson plan preparation is facilitated by educational foundations. This generally occurs in private schools coordinated by certain foundations. Through the forum, a lesson plan product was produced which was agreed to be used for all teachers according to the subjects and class levels being taught.	
3.	Lesson plans are prepared based on the coordination of the school units. The preparation is done by the teacher through the coordination of the headmaster. The resulting product is used only for the scope of one school	
4.	The preparation of the lesson plan is carried out independently by the teacher. Lesson plans are prepared by themselves and used alone in online learning.	

The results of the analysis presented in Table 2 show that the preparation of lesson plans is carried out in online learning. Even though there is a change to online learning, teachers continue to plan learning activities with their students. It's just that the preparation process showed varied findings. Some of the lesson plans are arranged through coordination to be implemented together on a wide scale, it is also found that the preparation of coordinated lesson plans is only for small scale or for one school unit. Another finding is that the preparation of lesson plans is carried out independently by the teacher.

Based on the correlation of these findings, it can be concluded that during the pandemic, teachers still make plans before carrying out learning together with their students. This should ideally be done. Whether learning is carried out face-to-face conventionally, or distance learning online, then the lesson plan is a mandatory thing to be developed before the teacher conducts learning activities. Lesson plans must be developed by teachers because they are very important tools for learning. Through careful planning, the learning process will be more organized, directed and systematically arranged (Emiliasari, 2019). Carrying out effective learning planning is part of the quality of the teacher's pedagogic competence (Abadi & Ekawati, 2018; Hallam et al., 2021; Ortiz & Davis, 2020; Rosen et al., 2020; Rusznyak & Walton, 2011; Tresnawati & Utari, 2019). Even the lesson plan is one of the main supports for Technology Pedagogy and Content Knowledge (TPACK) (Aktaş & Özmen, 2020; Akyuz, 2018; Brinkley-Etzkorn, 2018; Dalal et al., 2017; Durdu & Dağ, 2017; Tseng et al., 2019). Thus, it is appropriate that

teachers are still obliged to prepare lesson plans even though they are in any learning situation (such as online learning during a pandemic).

Another result that became the findings on this topic was the content of the lesson plans prepared by the teacher. The results of the document analysis show that the lesson plans in online learning developed by teachers always contain three main elements, namely: learning objectives, learning activities and learning assessments. These three main elements were found in all analyzed cases. The first main element that always appears is the learning objectives. This is the most important component because it is related to the goals to be achieved according to the demands of the curriculum. As stated in the findings of the previous topic that in online learning during a pandemic, the learning objectives used by teachers only choose competencies that are considered essential (not all). This is based on the situation and the duration of online learning cannot be equated with conventional face-to-face learning. Ideally learning outcomes should consider duration, activity, level and subject (Adiguzel, 2021). Therefore, with the limited duration of the teacher, the simplification of competencies by choosing only essential competencies is a way to overcome these limitations. Lesson plan is a way for teachers to achieve goals (Vdovina & Gaibisso, 2013). Each teacher has a different way of achieving goals but must comply with standard rules (Nurtanto et al., 2021).

The second main element that is always found in the teacher's lesson plans is learning activities. Research findings show that all teacher lesson plans always contain learning activities which include: introduction, core activity and closing. This shows a good effort from the teacher's lesson plan because the three activities are indicators of teacher performance in the implementation of learning (Tjabolo & Herwin, 2020). Lesson plan is the main task and responsibility of a teacher (Wuryandani & Herwin, 2021). Lesson plans provide instructions to the teacher about what to do at a certain time so that the learning roadmap becomes clear from the introduction to the closing activity (Bin-Hady, 2018; Bin-Hady & Abdulsafi, 2018). Based on this, every activity in learning activities must be detailed clearly and systematically.

The last main element that is always found in the teacher's lesson plan in online learning is assessment. Assessment is an important activity in learning activities (Herwin et al., 2019). The results of the assessment are very useful for improving the educational process (Retnawati et al., 2017). To overcome student boredom in online learning, assessment can be used as a generator of motivation to learn (Leenknecht et al., 2020; Panesar-Aguilar & Aguilar, 2017). As is the case with the findings of this study, teachers are aware of student boredom in continuous online learning, so innovation is needed to overcome this. One example used is to integrate assessments with mobile-based competitive games. Through such assessment techniques, the teacher displays all student achievements during the competition. One of the recorded situations is presented in the following figure.



Figure 1. Example of assessment results through competition games

Figure 1 shows one of the results of the teacher's assessment where the assessment is designed based on a competition game. All students can see the points that have been collected from several opportunities to take the assessment. Basically, the game is an activity that is very close to the world of children. If applied in learning activities proportionally, it can be useful for increasing children's learning activities (Nugraha et al., 2018). This of course can indirectly overcome the boredom of children's learning and generate their motivation.

3.3 Presentation of Online Learning

Presentation of learning is the most important part in learning activities. In this activity the teacher conveys the competencies or learning objectives that have been designed in the lesson plan based on the demands of the curriculum. Therefore, this is the part that will determine whether the learning objectives can be conveyed to students effectively. It must be realized that every teacher has different characteristics in terms of the delivery of learning. Likewise, the findings of this study based on the results of data analysis, three sub-themes were obtained which are presented in the following table.

Table 3. Presentation of online learning

No	Sub-theme	Correlation between
1.	The teacher delivers the material by using Zoom to conduct video conferencing and is supported by WhatsApp Groups (Student Groups and Parents Groups) to conduct non-face-to-face discussions.	Sub-theme Teachers carry out online learning through network technology both synchronously and asynchronously.
2.	Video conferencing presentations by teachers are carried out using Google Meet, while asynchronous learning is carried out through Google Classroom and supported by WhatsApp Groups to strengthen information for students and parents.	
3.	Teachers don't do too much synchronous learning, but the delivery of material relies more on Handbooks, Youtube recordings and WhatsApp Groups	

Table 3 presents several sub-themes that have been found after conducting data analysis. Basically, the findings on this topic indicate that during the Covid-19 pandemic, online learning has become the main choice for teachers to convey competence to their students. This online learning is carried out synchronously and also asynchronously (a combination of both). Synchronous learning generally uses

video conferencing via Zoom and Google Meetings. These two platforms are the choice of teachers to facilitate their synchronous learning. One sample situation is presented in the following figure.

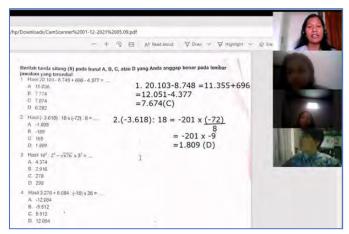


Figure 2. Zoom-mediated synchronous meeting

Online meetings are one way for teachers to carry out synchronous learning. This activity is very useful for both teachers and students as an effort to convey material that is considered difficult to convey through asynchronous learning. Findings in the field show that Zoom is the most frequently used video communication application by teachers on various devices, both mobile and desktop. This is supported by several previous findings that Zoom has an impact on improving student performance in independent learning, managing time and increasing motivation (Bawanti & Arifani, 2021; Nadezhda, 2020). This media is quite good at conveying detailed information but sometimes students and parents complain about it because it requires a lot of internet quota.

At the time of online-based distance learning, not all meetings were conducted synchronously by the teacher. The combination with asynchronous learning is also done as a variation in delivering learning. Asynchronous learning is generally done through Google Classroom media. Most teachers feel that they are suitable for the media to post material that is followed asynchronously by students. The following is an example of an asynchronous learning situation.

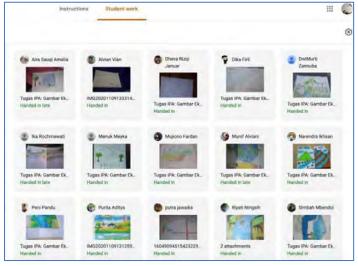


Figure 3. Asynchronous online learning activities

Integrating synchronous and asynchronous learning activities is a teacher's effort to make variations and minimize student boredom in learning activities. In addition to synchronous learning, the teacher also makes variations with asynchronous learning. This is also important because asynchronous online learning supports constructivist theory, a student-centered approach that emphasizes the importance of interaction and strengthens independent learning in students (Shahabadi & Uplane, 2015). This is generally done so that students can study anywhere and can spend their time studying the topics they want to know with a more flexible time (Malik et al., 2017). Because asynchronous learning does not take place in real time, students' responses and work results need to get feedback from the teacher so that they can understand the topic well. The findings of this study indicate that feedback is sometimes given via Google Classroom, but sometimes feedback is also sent via WhatsApp as in the situation presented in Figure 4 below.

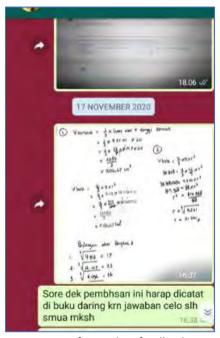


Figure 4. Activities of providing feedback to students

Feedback is done by the teacher to strengthen students' understanding of the learning topic. The findings of this study indicate that giving feedback is generally done through WhatsApp. They consider that WhatsApp is the closest application for students to reach. In addition, this application is also very instant run on smartphone (Barhoumi, 2015). Its use is simple and allows for a quick response both by the teacher and by students. In online learning, providing quality feedback to students is more technical. In distance learning students need more support and feedback from the teacher because there is no direct interaction (Halawa et al., 2017). This is certainly a positive effort made by the teacher to achieve the learning objectives set.

4. Conclusion

Learning during the pandemic is presented in a distance model based on online learning. Online learning is based on a simplified curriculum with the selection of essential competencies that are considered very important to be conveyed to students. The total change from conventional face-to-face learning to online-based distance learning also has an impact on the way teachers plan learning activities. The simplification of competencies and a more flexible situation also influence teacher planning. Lesson plans that are prepared are not as complex as during face-to-face offline learning but

are simpler or can even be used for several occasions. Each teacher has their own way of planning their lessons, but what is always found in the lesson plans are learning objectives, learning activities and assessments.

The teacher presents learning by utilizing various media. Synchronous learning more often relies on online face-to-face meetings via Zoom. Asynchronous learning variations are carried out using Google Classroom media to form independent learning and realize student-centered learning. In online learning the teacher makes efforts to strengthen student understanding through providing feedback through the WhatsApp application because it is considered more flexible, responds quickly, is simple and easy to run on students' smartphones. In addition, feedback is used by teachers to provide external motivation to students.

This finding recommends to local governments the need to develop teacher resources in the future. Development can be done in the form of online learning development training, online-based innovative learning media training and pedagogic activities that support the success of online learning. In addition, schools and foundations must also continue to monitor and assist teachers who have difficulty adapting to online-based learning. To all, be it schools, parents, the community and especially the government, needs to support the development of online learning facilities, for example on internet quota assistance, network strengthening and other online facilities. This is very important for the success of online learning to achieve the goals in the national curriculum.

Acknowledgements

This is a research group project at the Department of Elementary School Education, Universitas Negeri Yogyakarta. This research was funded by Universitas Negeri Yogyakarta in 2021. Therefore, we would like to thank the Chancellor who has provided motivation and financial assistance for this research activity. We also thank the elementary school teachers for their willingness to be informants in this research.

References

- Abadi, A., & Ekawati, R. (2018). Redesigning preservice Mathematics teacher's lesson plan by using productive pedagogies framework. *Journal of Engineering Science and Technology*, *13*(5), 1376–1383.
- Abidah, A., Hidaayatullaah, H. N., Simamora, R. M., Fehabutar, D., & Mutakinati, L. (2020). The impact of Covid-19 to Indonesian Education and its relation to the philosophy of "Merdeka Belajar." *Studies in Philosophy of Science and Education*, 1(1), 38–49. https://doi.org/10.46627/sipose.v1i1.9
- Adeoye, B. F. (2020). The era of digital technology in teaching and learning in Nigeria Educational Institutions. *The Roles of Technology and Globalization in Educational Transformation*, 43–51. https://doi.org/10.4018/978-1-5225-9746-9
- Adepoju, O., & Nwulu, N. (2020). Engineering students innovation competence: A comparative analysis of Nigeria and South Africa. *International Journal of Engineering Pedagogy*, 10(6), 147–155. https://doi.org/10.3991/ijep.v10i6.14695
- Adiguzel, F. B. (2021). Examining the creative drama-based lesson plans of the prospective Turkish Language and literature teachers. *Eurasian Journal of Educational Research*, *91*, 205–236. https://doi.org/10.14689/ejer.2021.91.10
- Aini, Q., Budiarto, M., Putra, P. O. H., & Rahardja, U. (2020). Exploring e-learning challenges during the global Covid-19 Pandemic: A review. *Jurnal Sistem Informasi*, 16(2), 57–65. https://doi.org/10.21609/jsi.v16i2.1011
- Aktaş, İ., & Özmen, H. (2020). Investigating the impact of TPACK development course on pre-service science teachers' performances. *Asia Pacific Education Review*, *21*(4), 667–682. https://doi.org/10.1007/s12564-020-09653-x
- Akyuz, D. (2018). Measuring technological pedagogical content knowledge (TPACK) through performance assessment. *Computers & Education*, *125*, 212–225. https://doi.org/10.1016/j.compedu.2018.06.012

- Herwin, H., Hastomo, A., Saptono, B., Ardiyansyah, A. R., & Wibowo, S. E. (2021). How elementary school teachers organized online learning during the Covid-19 Pandemic? *World Journal on Educational Technology: Current Issues.* 13(3), 437-449. https://doi.org/10.18844/wjet.v13i3.5952
- Al-Hunaiyyan, A., & Alhajri, R. (2021). Towards an efficient integrated distance and blended learning model: How to minimise the Impact of Covid-19 on education. *International Journal of Interactive Mobile Technologies*, 15(10), 173–193. https://doi.org/10.3991/ijim.v15i10.21331
- Barhoumi, C. (2015). The effectiveness of WhatsApp mobile learning activities guided by activity theory on students' knowledge management. *Contemporary Educational Technology*, 6(3), 221–238. https://doi.org/10.30935/cedtech/6151
- Basilaia, G., & Kvavadze, D. (2020). Transition to online education in schools during a SARS-CoV-2 coronavirus (COVID-19) pandemic in Georgia. *Pedagogical Research*, *5*(4), 1–9. https://doi.org/10.29333/pr/7937
- Bawanti, P. K. D., & Arifani, Y. (2021). Students' perceptions of using Zoom application on mobile phone in improving speaking skills during online learning at Ban Loeiwangsai School, Loei Province, Thailand. *Journal of English Teaching, Literature, and Applied Linguistics, 5*(1), 54–61. https://doi.org/10.30587/jetlal.v5i1.2212
- Bin-Hady, W. R. A. (2018). A study of novice teachers' challenges at their practical teaching phase. *International Journal on Language, Research and Education Studies*, 2(3), 333–345. https://doi.org/10.30575/2017/IJLRES-2018091203
- Bin-Hady, W. R. A., & Abdulsafi, A. S. T. (2018). How can i prepare an ideal lesson-plan? *International Journal of English and Education*, 7(4), 275–289. https://doi.org/10.2139/ssrn.3434031
- Brinkley-Etzkorn, K. E. (2018). Learning to teach online: Measuring the influence of faculty development training on teaching effectiveness through a TPACK lens. *The Internet and Higher Education*, *38*, 28–35. https://doi.org/10.1016/j.iheduc.2018.04.004
- Budiaman, B., Komarudin, K., Nuruddin, N., & Kustandi, C. (2021). Learning design on social studies through digital book in senior high school. *International Journal of Interactive Mobile Technologies*, *15*(9), 154–166. https://doi.org/10.3991/ijim.v15i09.18435
- Chun, D., Kern, R., & Smith, B. (2016). Technology in language use, language teaching, and language learning. *The Modern Language Journal*, 100(S1), 64–80. https://doi.org/10.1111/modl.12302
- Dalal, M., Archambault, L., & Shelton, C. (2017). Professional development for international teachers: Examining TPACK and technology integration decision making. *Journal of Research on Technology in Education*, 49(3–4), 117–133. https://doi.org/10.1080/15391523.2017.1314780
- Dumford, A. D., Cogswell, C. A., & Miller, A. L. (2016). The who, what, and where of learning strategies. *The Journal of Effective Teaching*, *16*(1), 72–88.
- Durdu, L., & Dağ, F. (2017). Pre-service teachers' TPACK development and conceptions through a TPACK-based course. *Australian Journal of Teacher Education*, 42(11), 150–171. https://doi.org/10.14221/ajte.2017v42n11.10
- Efriana, L. (2021). Problems of nnline learning during Covid-19 Pandemic in EFL Classroom and the solution. *JELITA*, 2(1), 38–47.
- Emiliasari, R. N. (2019). Lesson planning in EFL Classroom: A case study in lesson plan preparation and implementation. *Wiralodra English Journal*, *3*(2), 367–375. https://doi.org/10.31943/wej.v3i2.67
- Gay, G. (2016). An assessment of online instructor e-learning readiness before, during, and after course delivery. Journal of Computer in Higher Education, 28, 199–220. https://doi.org/10.1007/s12528-016-9115-z
- Goodson, C. E., Miertschin, S. L., & Stewart, B. L. (2015). Time management skills and student performance in online courses. *The ASEE Computers in Education (CoED) Journal*, 7(2), 37–48. https://doi.org/10.18260/p.24921
- Halawa, A., Sharma, A., Bridson, J., Lyon, S., Prescott, D., Guha, A., & Taylor, D. (2017). Constructing quality feedback to the students in distance learning: Review of the current evidence with reference to the online master degree in transplantation. *World Journal of Education*, 7(4), 117–121. https://doi.org/10.5430/wje.v7n4p117
- Hallam, S., Willingham, P., & Baranovic, K. (2021). A process of engagement: Using government documents in open pedagogy. *The Journal of Academic Librarianship*, 47(3), 102358. https://doi.org/10.1016/j.acalib.2021.102358
- Herwin, H., Tenriawaru, A., & Fane, A. (2019). Math elementary school exam analysis based on the Rasch model. Jurnal Prima Edukasia, 7(2), 106–113. https://doi.org/10.21831/jpe.v7i2.24450

- Herwin, H., Hastomo, A., Saptono, B., Ardiyansyah, A. R., & Wibowo, S. E. (2021). How elementary school teachers organized online learning during the Covid-19 Pandemic? *World Journal on Educational Technology: Current Issues.* 13(3), 437-449. https://doi.org/10.18844/wjet.v13i3.5952
- Herwin, Jabar, C. S. A., Senen, A., & Wuryandani, W. (2020). The Evaluation of Learning Services during the COVID-19 Pandemic. *Universal Journal of Educational Research*, 8(11B), 5926–5933. https://doi.org/10.13189/ujer.2020.082227
- Kusmawan, U., & Belawati, T. (2010). The role of ICT in open and distance education partnerships. *Southeast Asia Journal on Open and Distance Learning*, 4(1).
- Leenknecht, M., Wijnia, L., Köhlen, M., Fryer, L., Rikers, R., & Loyens, S. (2020). Formative assessment as practice: the role of students' motivation. *Assessment & Evaluation in Higher Education*, 46(2), 236–255. https://doi.org/10.1080/02602938.2020.1765228
- Luthra, P., & Mackenzie, S. (2020). 4 ways Covid-19 could change how we educate future generations. *World Economic Forum*. https://www.weforum.org/agenda/2020/03/4-ways-covid-19-education-future-generations/
- Malik, M., Fatima, G., Hussain, A., & Sarwar, A. (2017). E-Learning: Students' perspectives about asynchronous and synchronous resources at higher education level. *Bulletin of Education and Research*, *39*(2), 183–195.
- Melati, E. R., & Utanto, Y. (2016). Kendala guru sekolah dasar dalam memahami Kurikulum 2013 [Obstacles of elementary school teachers in understanding the 2013 Curriculum]. *Indonesian Journal of Curriculum and Educational Technology Studies*, 4(1), 1–9. https://doi.org/10.15294/ijcets.v4i1.14252
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2018). *Qualitative data analysis: A methods sourcebook*. Sage Publications.
- Nadezhda, G. (2020). Zoom technology as an effective tool for distance learning in teaching English to medical students. *Pedagogical Sciences*, *6*(5), 457–460. https://doi.org/10.33619/2414-2948/53/61
- Nashruddin, N., Alam, F. A., & Tanasy, N. (2020). Perceptions of teacher and students on the Use of e-mail as a medium in distance learning. *Berumpun: International Journal of Social, Politics, and Humanities*, 3(2), 182–194.
- Nguyen, H.-T. T. (2021). Boosting motivation to help students to overcome online learning barriers in Covid-19 Pandemic: A case study. *International Journal of Interactive Mobile Technologies*, 15(10), 4–20. https://doi.org/10.3991/ijim.v15i10.20319
- Nugraha, Y. A., Handoyo, E., & Sulistyorini, S. (2018). Traditional game on the social skill of students in the social science learning of elementary school. *Journal of Primary Education*, 7(2), 220–227. https://doi.org/10.15294/jpe.v7i2.23475
- Nurtanto, M., Kholifah, N., Masek, A., Sudira, P., & Samsudin, A. (2021). Crucial problems in arranged the lesson plan of vocational teacher. *International Journal of Evaluation and Research in Education*, 10(1), 345–354. https://doi.org/10.11591/ijere.v10i1.20604
- Ortiz, N. A., & Davis, T. J. (2020). Gladys's lesson plan: A culturally relevant exemplar. *Mathematics Teacher:* Learning and Teaching PK-12, 113(8), 651–657. https://doi.org/10.5951/MTLT.2019.0053
- Palupi, D. T. (2018). What type of curriculum development models do we follow? An Indonesia's 2013 Curriculum Case. *Indonesian Journal of Curriculum and Educational Technology Studies*, 6(2), 98–105. https://doi.org/10.15294/ijcets.v6i2.26954
- Panesar-Aguilar, S., & Aguilar, E. (2017). Promoting effective assessment for learning methods to increase student motivation in schools in India. *The Research in Higher Education Journal*, 31, 1–16.
- Rahardjo, A., & Pertiwi, S. (2020). Learning motivation and students' achievement in learning English. *JELITA*, 1(2), 56–64.
- Rahman, H. (2014). The role of ICT in open and distance education. *Turkish Online Journal of Distance Education*, 15(4), 162–169. https://doi.org/10.17718/tojde.47700
- Retnawati, H., Kartowagiran, B., Arlinwibowo, J., & Sulistyaningsih, E. (2017). Why are the mathematics national examination items difficult and what is teachers' strategy to overcome it? *International Journal of Instruction*, 10(3), 257–276. https://doi.org/10.12973/iji.2017.10317a
- Riahi, S., & Riahi, A. (2018). The pedagogy of higher education: How to evaluate the quality of training in Morocco to improve it. *International Journal of Engineering Pedagogy*, 8(1). https://doi.org/10.3991/ijep.v8i1.7984
- Rosen, M. L., Cerullo, J., Martinez, G., Mione, K. K., Note, A., & Vasquez, N. (2020). Letting go of the lesson plan: spontaneity and flexibility in a learner-centered approach to maximize learning in a graduate school setting. Transformations: The Journal of Inclusive Scholarship and Pedagogy, 30(2), 163–173.

- Herwin, H., Hastomo, A., Saptono, B., Ardiyansyah, A. R., & Wibowo, S. E. (2021). How elementary school teachers organized online learning during the Covid-19 Pandemic? *World Journal on Educational Technology: Current Issues.* 13(3), 437-449. https://doi.org/10.18844/wjet.v13i3.5952
 - https://doi.org/10.5325/trajincschped.30.2.0163
- Rusznyak, L., & Walton, E. (2011). Lesson planning guidelines for student teachers: A scaffold for the development of pedagogical content knowledge. *Education as Change*, 15(2), 271–285. https://doi.org/10.1080/16823206.2011.619141
- Shahabadi, M. M., & Uplane, M. (2015). Synchronous and asynchronous e-learning styles and academic performance of e-learners. *Procedia Social and Behavioral Sciences*, *176*, 129–138. https://doi.org/10.1016/j.sbspro.2015.01.453
- Siambaton, H. R., Erlinawati, E., & Haryanto, H. (2016). Problem implementasi Kurikulum 2013 Mata Pelajaran Ilmu Pengetahuan Sosial di jenjang sekolah menengah pertama [The problem of implementing the 2013 Curriculum for Social Science Subjects at the junior high school level]. *Indonesian Journal of Curriculum and Educational Technology Studies*, 4(1), 10–16. https://doi.org/10.15294/ijcets.v4i1.14269
- Subekti, A., Yudha, S. S., & Budisantoso, H. T. . (2016). Pemahaman dan peran guru TIK dalam implementasi Kurikulum 2013 di sekolah menengah atas [Understanding and the role of ICT teachers in the implementation of the 2013 Curriculum in senior high schools]. *Indonesian Journal of Curriculum and Educational Technology Studies*, 4(1), 25–31. https://doi.org/10.15294/ijcets.v4i1.14274
- Surur, M., Degeng, I., Setyosari, P., & Kuswandi, D. (2020). The effect of problem-based learning strategies and cognitive styles on junior high school students' problem-solving abilities. *International Journal of Instruction*, 13(4), 35–48. https://doi.org/10.29333/iji.2020.13
- Sutrisno, R., Widyaningsih, W., Asih, N., & Istyarini, I. (2017). Kendala pelaksanaan layanan teknologi informasi & komunikasi dalam Kurikulum 2013 [Obstacles in implementing information & communication technology services in the 2013 Curriculum]. *Indonesian Journal of Curriculum and Educational Technology Studies*, *5*(1), 22–32. https://doi.org/10.15294/ijcets.v5i1.14246
- Tjabolo, S. A., & Herwin. (2020). The influence of teacher certification on the performance of elementary school teachers in Gorontalo Province, Indonesia. *International Journal of Instruction*, 13(4), 347–360. https://doi.org/10.29333/iji.2020.13422a
- Tresnawati, C., & Utari, T. S. G. (2019). Meta-strategy analysis in evaluating pedagogy ability of Biology Student Teacher. *AIP Conference Proceedings*, 060011. https://doi.org/10.1063/1.5115711
- Tseng, J. J., Cheng, Y. S., & Yeh, H. N. (2019). How pre-service English teachers enact TPACK in the context of web-conferencing teaching: A design thinking approach. *Computers & Education*, 128, 171–182. https://doi.org/10.1016/j.compedu.2018.09.022
- Vdovina, E., & Gaibisso, L. C. (2013). Developing critical thinking in the English language classroom: A lesson plan. *ELTA Journal*, 1(1), 54–68.
- Wahab, S., & Iskandar, M. (2020). Teacher's performance to maintain students' learning enthusiasm in the online learning condition. *JELITA*, 1(2), 34–44.
- Wati, I. F., & Yuniawatika. (2020). Digital game-based learning as a solution to fun learning challenges during the Covid-19 pandemic. 1st International Conference on Information Technology and Education, 202–210. https://doi.org/10.2991/assehr.k.201214.237
- Wuryandani, W., & Herwin, H. (2021). The effect of the think–pair–share model on learning outcomes of Civics in elementary school students. *Cypriot Journal of Educational Sciences*, 16(2), 627–640. https://doi.org/10.18844/cjes.v16i2.5640
- Yulia, H. (2020). Online learning to prevent the spread of pandemic corona virus in Indonesia. *ETERNAL (English Teaching Journal)*, 11(1), 48–56. https://doi.org/10.26877/eternal.v11i1.6068