Improving the Quality of ICT-Based Arabic Learning Assessment With Online Applications

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This study aims to improve the ICT-based Arabic learning assessment quality in madrasahs. This research uses Participatory Action Research (PAR) and Asset-Based Community Development (ABCD) methods. The research stages include assessment, action, observation, and reflection, with the data collection using observation, interviews, questionnaires, and focused group discussions (FGD). This study concluded that improving the quality of ICT-based Arabic learning assessment has been effectively implemented. The improvement is known in the indicators achieved. This success saw an increase in the ICT competence of Arabic language teachers, which was initially 58% at medium and high levels. At the end of the program obtained data, 90% had mastered the trained application. Teachers are also committed to utilizing ICT in learning assessment, even if learning is offline.

Keywords: quality improvement, learning assessment, ICT, Wordwall Application

INTRODUCTION

Technology development in learning has been so rapid that increasing technological competence for educators is necessary (Assar, 2015). Research conducted by the author on Arabic teachers of Madrasah Aliyah in Sukoharjo district before the Covid-19 pandemic shows that the use of ICT in Arabic language learning is still not varied (Makruf, 2020). Meanwhile, many studies carried out during the Covid-19 pandemic both in Indonesia and other countries show that the ICT competence of teachers is generally not good and evenly distributed, which impacts the quality of learning. (Aditya, 2021; Jumareng et al., 2021; Motteram et al., 2020; Purwadi et al., 2020; Soria et al., 2020).

During the Covid-19 pandemic, online learning experienced many obstacles in the assessment process, mainly if teachers only use the WhatsApp application or other social media. Research related to this evaluation is carried out by Nusantara, which shows that WhatsApp is less effective (Nusantara et al., 2021). On the other hand, Putri's research indicates that *the Computer Base Test* (CBT) has higher effectiveness (Putri & Rahayu, 2018). Using *google forms* is also quite effective for assessment (Choiroh, 2021; Rezeki, 2020). Fauzi has even provided training to Arabic teachers in Malang Raya with several learning evaluation platforms such as Edmodo, Google Quiz, Potatoes, and Quiz Creator, with results that further increase learning effectiveness (Fauzi et al., 2020). Likewise, the Kahoot application is worth using in learning assessments (Widodo et al., 2021).

Based on the initial information that the author got from interviews with MGMP administrators and several Arabic teachers in MTs in the Sukoharjo district, most teachers use WhatsApp media in online learning assessments, although some also use google forms. It is also a common phenomenon in various institutions and countries. Some research results related to the use of WhatsApp can corroborate this (Ahmed, 2019; Balcı & Kartal, 2021; Enyama et al., 2021; Hikamah et al., 2021; Madge et al., 2019; Ritonga et al., 2020; Robles et al., 2019; Suhaimi et al., 2019). Among the considerations is choosing one that is simple, easy to use, and familiar. In this case, the quality of the assessment process and results are not a priority for consideration. Teachers generally also have limited skills in utilizing various more standardized test applications. Meanwhile, learning has been running offline so far, so it has not designed an online evaluation. Concerning the government's plan to implement the prototype curriculum in 2022, teachers do not wholly understand. In this case, teachers need to understand some paradigms or principles of assessment so that the evaluation quality continues to increase.

Sukoharjo Regency is affiliated with UIN Raden Mas Said Surakarta because this campus locates in this area. Thus, the existence of the campus can provide the most significant benefit to the community, especially those nearby. On this basis, Sukoharjo became a priority location for this community service program. In addition to the area, the selection of focus is on Arabic subjects because of the field of science closest to the research team's study program. Another thing to consider is the program's sustainability; in 2020, the service team also assisted Arabic teachers at the Elementary School (MI) level. Before that, it had trained Arabic teachers at the same district's Senior High School (MA) level. Thus, this study will equally distribute teacher competencies at all levels.

Many test platforms or applications can be utilized in Arabic language assessment with various advantages without being paid or free. Subject Teachers Association (MGMP) activities, regularly held, are also an opportunity for teachers to gather in one field of knowledge to share experiences and skills. On the other hand, universities are responsible for improving the quality of education, especially those following the study program developed. In this case, universities as strategic partners of educational institutions at the primary and secondary levels because they have human resources or experts who can synergize in overcoming various academic obstacles. Therefore, this study program-based community service program can be the best choice to establish cooperation between universities and madrasahs to improve the quality of education. The results of this mentoring program will be a pilot in innovating learning assessments, especially in Arabic studies.

The main problem raised in this empowerment research program is the demand to improve the quality of ICT-based Arabic language learning in Yunior High School (MTs) of the Sukoharjo Regency. Specifically, this research aims to improve the quality of ICT-based Arabic language assessment in welcoming the implementation of the 2022 prototype curriculum in MTs of the Sukoharjo Regency.

METHODOLOGY

This research uses a *Participatory Action Research* (PAR) approach (Chevalier & Buckles, 2013) and combines it with the principles of ABCD (Asset-Based Community Development) (Winther, 2015). The participatory approach has main stages, namely; (1) assessment, (2) action, (3) observation, and (4) reflection. Meanwhile, ABCD has 5 (five) main stages, namely; Discovery, Dream, Design, Define, and Destiny (self-determination) (Mirza Maulana, 2019). This research uses the main stages of PAR because there are includes the basic principles of ABCD. Meanwhile, this study uses the ABCD method in the application of its principles, including; (1) All people have potential (Nobody Has Nothing), (2), Participation (Participation), and (3) Partnership (Partnership).

This approach is considered appropriate to apply because this research is devoted to teachers who are diverse in their abilities. Thus, there is potential that they have, especially the existence of MGMP, a medium for teachers to gather and engage in sharing experiences and improving their competence. Dengan pendekatan pemberdayaan, maka keterlibatan MGMP dalam kegiatan ini will greatly help the sustainability of its program. The first stage for this quality improvement program to be systematic and on target is

assessment before the action. The main second activity is observation and reflection to ensure sustainability. For this reason, the stages of this approach are carried out sequentially and structured.

The informants in this service program are all Arabic teachers in the Madrasah Tsanawiyah of the Sukoharjo district. Meanwhile, the key informants are the administrators of the Arabic MGMP of Sukoharjo district for the MTs level. In this case, all MGMP administrators are involved as informants in the data collection process, especially in FGD and Workshop activities.

The data collection uses observation, interviews, questionnaires, and *focused group discussions* (FGD) (Sugiyono, 2016). The observations focus on the workshop process and implementing ICT-based assessment development practices. Observation is carried out directly by looking at the location of the activities carried out both in the madrasah and at the workshop location. Due to a large number of madrasas focused on mentoring, observations are only carried out on the part of it as a sample. Observation is carried out by recording using an observation sheet in the form of a checklist. Interviews were conducted for respondents directly to meet during the FGD and when they came to the madrasah. Interviews supported them through online media, namely WhatsApp, chatting, and calling. Questionnaires are used to collect data on teachers' initial competencies in the field of ICT. Questionnaires are made in online form using Google Forms with some items as many as 20 and 4 alternative answer options. This questionnaire was distributed through the MGMP management through the WA Group. Focused Group Discussion (FGD) is carried out to collect data through joint discussions and explore data collected through other methods. This process is also used as a forum to triangulate data so that the data obtained is more valid and complete.

The data analysis process uses *interactive models* (Miles et al., 2014), which run simultaneously from the first to the last stage. The main steps in the data analysis of interactive models are data reduction, data presentation, and conclusion.

RESEARCH RESULTS

The results of this study describe the following stages in the community empowerment program: initial assessment, workshops, implementation/practice, monitoring, and evaluation.

Needs Assessment

Researchers assessed Arabic teachers in the Tsanawiyah Madrasah of Sukoharjo district at this stage. Data was collected using a google form-based questionnaire with 20 question items. The collected data saw that the majority of Arabic teachers have ICT skills at medium (8/47.1%) and low (7/41.2%), while those with high ability levels are only two people (2/11.8%). The data can be displayed in the table as follows:

TABLE 1
TOTAL SCORE DISTRIBUTION OF QUESTIONNAIRES

No	Interval Score	Frequency	Percentage	Category
1	21 – 40	7	41,2%	Low
2	41 – 60	8	47,1%	Medium
3	61 – 80	2	11,8%	High

When viewed from the items asked in the questionnaire, it presented as follows:

TABLE 2
SCORE DATA OF EACH INDICATOR

No	ICT Capability Indicators	Total Score	Average	Category
1.	Teachers can operate MS Word to build learning tools	51	3,00	Good
2.	Teachers can operate MS Word to compile assessment instruments	47	2,76	Good
3.	Teachers can operate MS Word to create, import, and organize graphic images/photos/visual shapes	48	2,82	Good
4.	Teachers can operate MS Excell to manage simple data	48	2,82	Good
5.	Teachers can operate MS Excell to process data with basic statistical formulas	46	2,71	Good
6.	Teachers can operate MS Excell to create graphs/images/photos/ visual graphic shapes	34	2,13	Good
7.	Teachers can operate MS PowerPoint to create simple presentations	47	2,76	Good
8.	Teachers can operate MS PowerPoint to create, import, and edit photos/images/videos/graphic visual shapes	38	2,24	Good
9.	Teachers can use Google Forms to create questions or learning assessment questionnaires	49	2,88	Good
10.	Teachers can use Google Forms to assign assignments and task collection	45	2,65	Good
11.	Teachers can use the Quiziz application to compile learning assessment instruments	33	1,94	Adequate
12.	Teachers can use the Google Quiz application to compile learning assessment instruments	33	1,94	Adequate
13.	Teachers can use the Kahoot application to compile learning assessment instruments	19	1,12	Adequate
14.	Teachers can use the Quiz Creator app to compile learning assessment instruments	25	1,47	Adequate
15.	Teachers can use the Moodle application to compile learning assessment instruments	21	1,24	Adequate
16.	Teachers can use the Edmodo application to compile learning assessment instruments	19	1,12	Adequate
17.	Teachers can use the WhatsApp application to compile learning assessment instruments	39	2,29	Good
18.	Teachers can use the internet to find materials needed for learning	43	2,53	Good
19.	Teachers can take advantage of Zoom Meetings or Google Meet to carry out learning and assessment	46	2,72	Good
20.	Teachers can use computers to make student report cards	47	2,76	Good

The data also provides information that teachers generally have not implemented many of the latest innovative applications in developing assessment instruments. Thus, assisting to increase competence in the field of ICT, especially for the needs of developing Arabic language assessment, becomes a real need. The data findings from the questionnaire were then explored in a focused group discussion (FGD) involving Arabic teachers.

The results of the FGD then set out to provide additional ICT competencies to Arabic teachers focused on training on the use of applications in the development of Arabic language learning assessment instruments. An expert person then consulted this result. They are Dr. Ahmad Maky, M.Pd. from UIN

Maulana Malik Ibrahim Malang, who, at the same time he, is also the chairman of the national level Arabic MGMP and has often accompanied Arabic teachers in developing competencies, especially in the field of technology. The result of the discussion then agreed to use Socrative, Quizalize, and Wordwall.

ICT-Based Assessment Instrument Development Workshop

This workshop activity is on July 28-29, 2022, at the Handayani Sukoharjo Food Center, near the centre of the Sukoharjo Regency. The determination of this location is initially at MTsN 3 Sukoharjo. However, because the implementation time coincided with the school's entrance and many students were in the madrasa this year, it was impossible to use the madrasa hall. The results of the deliberations with the MGMP management were then agreed to be moved to the Handayani Food Center, which has a reasonably representative meeting room equipped with internet (wifi) facilities supporting the development practice process ICT-based applications. The trainers in this workshop are; Dr. Ahmad Maky, M.Pd. from UIN Maulana Malik Ibrahim Malang, and Muhammad Nur Kholis, S.PdI. M.PdI. from UIN Raden Mas Said Surakarta.

The workshop material is on the theory and practice of utilizing the Socrative application (https://www.socrative.com/), Quizalize (https://www.quizalize.com/), and Wordwall (https://wordwall.net/id). This activity uses a direct technique guided by two speakers and a moderator. The workshop participants were enthusiastic and participated in the session after the session. All participants used laptops or smartphones to practice the trained applications (Obs, 01 and Obs, 02). This program is running well so that participants can produce products using ICT-based Arabic assessment instruments (Intv, 01).

Implementation, Monitoring, and Evaluation

Arabic teachers who have attended the two-day workshop training are generally committed to following up by utilizing the application in the assessment of Arabic language learning (Intv, 02). Researchers gave the participants questionnaires to determine their commitment to using ICT. The questionnaire is sent to the teachers via Google Forms shared via WhatsApp, coordinated by the Head of Arabic MGMP in the Sukoharjo Regency.

The questionnaire asked 15 (fifteen) items divided into 2 (two) types, namely closed and open questionnaires. The existence of an open questionnaire uses to strengthen and explore more answers from respondents. However, the open questionnaire is generally the same as the closed one. The questionnaire includes an evaluation of the training; the training material understanding; the follow-up to apply in learning; the selection of applications considered the most appropriate; and the general constraints and benefits obtained by madrasahs. The closed questionnaire provided can describe as the following:

TABLE 3
TEACHER RESPONSES TO ICT TRAINING

No	Aspects	Percentage	Description
1	Participants' response to the training carried out	78%	Very happy and gained new knowledge from the training
2	Participant assessment of the trained application	56%	Trained application according to the characteristics of the Arabic learning material
3	Participants' mastery of the training material	90%	They can practice the trained application themselves
4	Application of trained applications in madrasas	56%	There are no significant obstacles and will apply in madrasah
5	Benefits of using the app in Arabic language assessment	72%	The use of the application can improve the quality of assessment of Arabic language learning and not reduce the objectivity of the assessment

(Data processed from the results of the questionnaire)

In addition to using questionnaires, the monitoring and evaluation process was explored in a focused group discussion (FGD) forum. This activity was carried out by involving representatives of Arabic teachers as participants. In the FGD, some additional data related to implementing ICT in Arabic language assessment in madrasah. Based on the participant's experience, the most suitable application for Arabic assessment was Wordwall. Among the considerations is this application is placed as the most accessible and the most fun.

Data from the open questionnaire validated during the FGD indicated that the Wordwall application was considered the most suitable for use with various considerations. Teachers rate the app as more straightforward, more accessible, and more fun. The head of the Arabic MGMP reinforces this option, Mr Mudhakir, who said that the sharing results from teachers mostly use Wordwall because it is simpler and easier to use (Intv, 02). This opinion was also corroborated by Mr Masykur Ridwan (Intv, 03) and Hadi Prianto (Intv, 04), who stated that this app is easier and more fun because it is a game.

The teachers positively assessed the relationship between ICT and assessment in the context of the prototype curriculum. Mr Mudhakir stated: "the development of information technology demands innovation and creativity of educators in conducting assessments" (Intv, 02). Mrs Betty Wahyu Prihatin made almost the same statement: "the use of ICT makes it easier for teachers, and if not use it, is very troublesome" (Intv, 05). This statement also states by Mrs Siti Fatimah, who said that: "the current curriculum demands that teachers be more creative and active" (Intv, 06).

From the FGD process, sow several facts that there were several obstacles to implementing ICT in the assessment. Among these obstacles are students who do not have cell phones that support low internet signals, and some even do not have gadgets at home, both smartphones and laptops. To overcome this obstacle is if the madrasa has a computer or multimedia laboratory to use in the assessment process. However, the fact is that madrasas also do not all have the same facilities.

Despite the obstacles, it is indicated that ICT has excellent benefits in education. According to Mr Rizki Pangeran, using ICT provides benefits because; "practice, students are enthusiastic and do not feel like assessments, can be analyzed immediately, teachers do not have to bother with manual corrections" (Intv, 07). This statement means assessments are more objective, fast, time-saving, and accountable. According to Mr Hadi Prianto, using ICT means that madrasahs will also be more advanced, and the assessment process will not take up much time for teachers (Intv, 04). The comprehensive data collected saws that using ICT will further improve the overall quality of madrasahs.

DISCUSSION

Quality improvement is an effort used in various appropriate ways according to the problems faced. In the context of improving the quality of assessment, it is necessary to identify the real needs experienced by teachers in the learning assessment process. This experience needs assessment as part of the participatory research process. The stages follow the empowerment method with *Participatory Action Research* (PAR) combined with *Asset-Based Community Development* (ABCD). This study finds several essentials from the implementation process, and the community service results can be followed up and disseminated in similar places.

The teachers stated that the need for technology in developing Arabic language learning assessments was not only caused by the Covid-19 pandemic. This statement can be found in the evaluation results through the questionnaire after the training process, and the practice of developing ICT-based evaluation instruments is carried out. This finding is understandable because, at this time, technology development has been so fast and has provided many benefits for the learning process. Many online-based applications can be used to develop assessment instruments and are easier to use. On the other hand, nowadays, there are almost no more students who do not have gadgets in their homes, either their own or those of other family members, that allow them to access for internet. Every family today has gadgets or smartphones as their family members, likewise with the ownership of a laptop or computer in each house.

Teachers also stated that they would continue to utilize technology in learning assessments, although not as thoroughly as they did during the pandemic. Using this technology, in Triyana's view (Triyana et al.,

2019), can improve the quality, effectiveness, and efficiency of learning. This post-pandemic learning trend will not return to what it was before the pandemic in full because technological adaptation has already occurred, making it easier to continue to use it so that the learning process is more effective and efficient. Horn even stated that these technological innovations would continue to occur dynamically over time (Horn et al., 2015).

The readiness of teachers to continue to utilize technology cannot be separated from their enthusiasm because they already have good technological competence. If you look at the UNESCO criteria, teachers' ICT competencies at least include technological literacy, knowledge deepening, and knowledge creation. (Munir, 2014). In this community service program, teachers fill out a questionnaire stating they have no difficulty attending training and are trying to develop their ICT-based assessment instruments. Even among the teachers, some have committed to continue using technology in assessment. This commitment proves that the teachers' ICT competence has been quite good.

Of the several alternative applications introduced to Arabic teachers, the majority stated that the Wordwall application is still considered the most suitable for the character of Arabic learning. In addition, you can also use Quizalize and Socrative as other alternatives. Specifically, the Wordwall application has advantages over others. Among the benefits is that this application has a complete menu and selection of activities generally designed with game principles. Thus the teachers can choose according to the language skills to be tested. The development of questions is also not so difficult for teachers because it can be more accessible to operate, and it is not difficult to run the application. The principles in choosing the application follow the findings of research that the author conducted earlier, that the primary consideration for selecting a technology platform for the implementation of e-learning is the ease of application, lightweight, and familiarity (Makruf, 2020; Makruf et al., 2022). This result also aligns with Widodo's finding that the applications used the most practical and efficient considerations (Widodo et al., 2021).

The MTs Arabic teachers in Sukoharjo Regency already have good technological competence. The follow-up of the ICT utilization training program provided proves it. The follow-up is to use ICT to assess Arabic language learning in their respective madrasahs. Although not all of them are optimally in use, most have practised the development of instruments based on Wordwall, Socrative, and Quizalize applications. The Arabic teachers who have practised have the enthusiasm to implement learning and will use the application in learning assessments even though it is no longer online.

From the data collected from the field and the results of the FGD with teachers and administrators of the Arabic Language Subject MGMP, we know that the process of assisting the development of ICT-based Arabic language assessment can run well and effectively. This claim is not an exaggeration because technology has also become commonplace during the Covid-19 pandemic. There is a lot of research related to the use of ICT in learning during this pandemic. For example, Apri Wardana Ritonga's research (Ritonga et al., 2020) related to learning reading skills utilizing technology during a pandemic. Also, research from Emilda Sulasmi (Sulasmi & Agussani, 2021) related to virtual learning management during the Covid-19 pandemic.

This community service program is more of an effort to improve the skills of teachers in utilizing assessment applications and improving the quality of learning in general. The opportunity to continue to use technology in a learning process that is already wholly offline will remain. In the future, implementing an independent curriculum will require technological support in learning and assessment. Research findings of Siron et al. (Siron et al., 2020) show that educational institutions in Indonesia need to adapt technology in the curriculum. Thus, improving teacher competence in the field of ICT needs to be continuous, and innovations in ICT-based learning will continue to be required to improve the quality of learning and education in general.

CONCLUSIONS

Based on all the series of empowerment research programs implemented, this program has succeeded in improving the quality of Arabic language learning assessment in MTs Sukoharjo Regency. This success indicator is the increase in the ICT competence of Arabic language teachers, which was initially 58% at

medium and high levels. At the end of the program obtained data, 90% had mastered the trained application. With the increase in competence in the field of ICT, the quality of assessment of Arabic language learning has also increased because it is offline and online. The test includes varies according to the characteristics of the material. The follow-up to this research is that teachers are highly committed to implementing ICT in learning assessment even though the learning process is not online. This indicator is one of the proofs that this mentoring and empowerment program is quite effective.

REFERENCES

Aditya, D.S. (2021). Embarking digital learning due to Covid-19: Are teachers ready? *Journal of Technology and Science Education*, *11*(1), 104–116. https://doi.org/10.3926/jotse.1109

Ahmed, S.T.S. (2019). Chat and Learn: Effectiveness of Using Whatsapp as a Pedagogical Tool to Enhance EFL Learners' Reading and Writing Skills. *International Journal of English Language and Literature Studies*, *8*(2), 61–68. https://doi.org/10.18488/journal.23.2019.82.61.68

Assar, S. (2015). Information and Communications Technology in Education. In *International Encyclopedia of the Social & Behavioral Sciences: Second Edition*. https://doi.org/10.1016/B978-0-08-097086-8.92104-4

Balcı, Ö., & Kartal, G. (2021). A New Vocabulary Revision Technique Using WhatsApp: Peer-Chain. *Education and Information Technologies*, *26*(5), 5873–5893. https://doi.org/10.1007/s10639-021-10571-7

Chevalier, J., & Buckles, D. (2013). *Participatory Action Research and an Independent Consultant Theory and Methods for Engaged Inquiry*.

Choiroh, M. (2021). Evaluasi Pembelajaran Bahasa Arab Berbasis Media E-Learning وسائط التعليم الإلكتروني تقويم التعليم اللغة العربية على أسس , *Bahasa Arab NASKHI Jurnal Kajian Pendidikan Dan Bahasa Arab*. Retrieved from https://journal.iaimsinjai.ac.id/index.php/naskhi. 47–41), 1(*3*

Enyama, D., Balti, E.V., Simeni Njonnou, S.R., Ngongang Ouankou, C., Kemta Lekpa, F., Noukeu Njinkui, D., . . . Choukem, S.P. (2021). Use of WhatsApp®, for Distance Teaching During Covid-19 Pandemic: Experience and Perception From a Sub-Saharan African Setting. *BMC Medical Education*, *21*(1), 1–9. https://doi.org/10.1186/s12909-021-02953-9

Fauzi, M.F., Fatoni, A., & Anindiati, I. (2020). Pelatihan Peningkatan Kualitas Evaluasi Pembelajaran Bahasa Arab Berbasis Information dan Communication Technology (ICT). *Jurnal Terapan Abdimas*, *5*(2), 173–181.

Hikamah, S.R., Suhadi, Rohman, F., & Kurniawan, N. (2021). Developing Virtual Communication Skills in Online Learning Based on Modified PBLDuring the Covid-19 Pandemic. *International Journal of Education and Practice*, *9*(2), 323–339. https://doi.org/10.18488/journal.61.2021.92.323.339

Horn, M.B., Staker, H., & Christensen, C.M. (2015). *Blended: Using Disruptive Innovation to Improve Schools*. Jossey-Bass, A Wiley Brand.

Jumareng, H., Setiawan, E., Patah, I.A., Aryani, M., Asmuddin, & Gani, R.A. (2021). Online learning and platforms favored in physical education class during Covid-19 era: Exploring student' perceptions. *International Journal of Human Movement and Sports Sciences*, *9*(1), 11–18. https://doi.org/10.13189/saj.2021.090102

Madge, C., Breines, M.R., Dalu, M.T.B., Gunter, A., Mittelmeier, J., Prinsloo, P., & Raghuram, P. (2019). WhatsApp use Among African International Distance Education (IDE) Students: Transferring, Translating and Transforming Educational Experiences. *Learning, Media and Technology*, *44*(3), 267–282. https://doi.org/10.1080/17439884.2019.1628048

Makruf, I. (2020). Pemanfaatan Teknologi Informasi dan Komunikasi dalam Pembelajaran Bahasa Arab di Madrasah Aliyah Kabupaten Sukoharjo. *Arabi : Journal of Arabic Studies*. https://doi.org/http://dx.doi.org/10.24865/ajas.v5i1.93

Makruf, I., Rifa'i, A.A., & Triana, Y. (2022). Moodle-Based Online Learning Management in Higher Education. *International Journal of Instruction*, *15*(1), 135–152.

Miles, M.B., Huberman, A.M., & Saldana, J. (2014). *Qualitative data analysis a methods sourcebook*. SAGE Publications, Inc.

Mirza Maulana. (2019). Asset-Based Community Development : Strategi Pengembangan Masyarakat di Desa Wisata Ledok Sambi Kaliurang. *Empower: Jurnal Pengembangan Masyarakat Islam*, *4*(2), 259–278. https://doi.org/10.24235/empower.v4i2.4572

Motteram, G., Dawson, S., & Al-Masri, N. (2020). WhatsApp Supported Language Teacher Development: A Case Study in the Zataari Refugee Camp. *Education and Information Technologies*, *25*(6), 5731–5751. https://doi.org/10.1007/s10639-020-10233-0

Munir. (2014). Kerangka Kompetensi Tik Bagi Guru. In *Alfabeta*.

Nusantara, D.S., Zulkardi, & Putri, R.I.I. (2021). Designing Pisa-Like Mathematics Task Using a Covid-19 Context (Pisacomat). *Journal on Mathematics Education*, *12*(2), 349–364. https://doi.org/10.22342/JME.12.2.13181.349-364

Purwadi, Saputra, W.N.E., Wahyudi, A., Supriyanto, A., Muyana, S., Rohmadheny, P.S., . . . Kurniawan, S.J. (2020). Student perceptions of online learning during the Covid-19 pandemic in Indonesia: A study of phenomenology. *European Journal of Educational Research*, *9*(3), 1257–1265. https://doi.org/https://doi.org/10.12973/eu-jer.10.3.1515

Putri, U.M., & Rahayu, S. (2018). Aplikasi Computer Based Test (CBT) Sebagai Alternatif Evaluasi Hasil Pembelajaran Siswa. *JUSIFO, Jurnal Sistem Informasi*, *4*(2), 153–164. Retrieved from http://jurnal.radenfatah.ac.id/index.php/jusifo/article/view/4110

Rezeki, P. (2020). Teknik Pelaksanaan Evaluasi pembelajaran Pendidikan Agama Islam Berbasis Online Masa Pandemi Covid-19. *At-Tarbiyah Al-Mustamirrah: Jurnal Pendidikan Islam*, *1*(1), 61–70. https://doi.org/10.31958/atjpi.v1i1.2533

Ritonga, A.W., Ritonga, M., Nurdianto, T., Kustati, M., Rehani, Lahmi, A., . . . Pahri. (2020). E-learning Process of Maharah Qira'ah in Higher Education During the Covid-19 Pandemic. *International Journal of Higher Education*, *9*(6), 227–235. https://doi.org/10.5430/ijhe.v9n6p227

Robles, H., Guerrero, J., Llinás, H., & Montero, P. (2019). Online Teacher-Students Interactions Using Whatsapp in a Law Course. *Journal of Information Technology Education: Research*, *18*, 231–252. https://doi.org/10.28945/4321

Siron, Y., Wibowo, A., & Narmaditya, B.S. (2020). Factors affecting the adoption of e-learning in Indonesia: Lesson from Covid-19. *Journal of Technology and Science Education*, *10*(2), 282–295. https://doi.org/10.3926/jotse.1025

Soria, S., Gutiérrez-Colón, M., & Frumuselu, A.D. (2020). Feedback and mobile instant messaging: Using Whatsapp as a Feedback tool in EFL. *International Journal of Instruction*, *13*(1), 797–812. https://doi.org/10.29333/iji.2020.13151a

Sugiyono. (2016). Metode Penelitian Kuantitatif Kualitataif dan Kombinasi (Mixed Methods). *Journal of Chemical Information and Modeling*. https://doi.org/10.1017/CBO9781107415324.004

Suhaimi, N.D., Mohamad, M., & Yamat, H. (2019). The Effects of Whatsapp in Teaching Narrative Writing: A Case Study. *Humanities and Social Sciences Reviews*, *7*(4), 590–602. https://doi.org/10.18510/hssr.2019.7479

Sulasmi, E., & Agussani. (2021). Managing virtual learning at higher education institutions during pandemic Covid-19 in the Indonesian context. *Educational Sciences: Theory and Practice*, *21*(1), 98–111. https://doi.org/10.12738/jestp.2021.1.008

Triyana, I.G.N., Sri Ratmini, N.K., Mandra, I.W., & Ruscitadewi, N.W. (2019). The Use Of Moodle-Based E-Learning In Evaluating Students' Learning. *Jurnal Penjaminan Mutu*, *5*(2), 165. https://doi.org/10.25078/jpm.v5i2.1089

Widodo, S., Supriyono, S., & Ratnaningsih, A. (2021). Inovasi Instrumen Penilaian Menggunakan Aplikasi Kahoot di Masa Pandemi Covid-19. *Edusia: Jurnal Ilmiah Pendidikan Asia*, *1*(1), 110–127. https://doi.org/10.53754/edusia.v1i1.62

Winther, T. (2015). *What lies within? An exploration of Asset Based Community Development (ABCD) Tracy Winther*.