

Readiness of Digital Learning Documents on Islamic Religious Education Teachers in Madrasah

Agus Ruswandi 10*, M. Aditya Firdaus 20, Riki Ruswandi 30, Aang Mahyani 40

1,2,3,4 Universitas Islam Nusantara, Jalan Soekarno Hatta No. 530 Bandung, Indonesia *agus_ruswandi@uninus.ac.id; adityafirdaus83@uninus.ac.id; riki rusw@uninus.ac.id; aangmahyani@uinsqd.ac.id.

Abstract. The problem of this study is that post-pandemic network-based learning requires teachers to have digital-based learning documents. This study aims to reveal the availability of documents and digital learning devices owned by Islamic Religious Education Teachers in Madrasah. This research design uses a quantitative and descriptive type with data sources from as many as 42 Islamic Religious Education Teachers from 15 Madrasah in Bandung, Indonesia. The results showed that only 7.14% of teachers have a very complete curriculum document. About 57.14% of teachers have digital teaching materials; about 35.71% have a "very complete" lesson plan; and only 4.76% have assessment digital documents. Teachers need to adapt to the development of technology and information to use digital learning devices. There needs to be training on the preparation of digital learning devices for Islamic Religious Education teachers in Madrasah.

Keywords: Readiness, Digital Learning Documents, Islamic Religious Education, Madrasah.

1 Introduction

At the time the COVID-19 pandemic occurred, the schools became distance and digital-based learning. It makes teachers indirectly forced to do online learning. The Teachers are less prepared to follow the learning using technology and networks practically. [1]; [2]. Among the effects of COVID-19 pandemic is reduced social contact. With the prohibition of direct social contact, learning was no longer accomplished in class. In several studies, the impact of the COVID-19 pandemic is the loss of usual daily routines as well as reduced social and physical contact with others (including social distancing measures) triggering many negative emotions such as frustration, boredom, anxiety, and anger [3]; [4]; [5].

The COVID-19 pandemic occurs, it has created a challenge for teachers and students in the learning process. In early March 2020, the Indonesian Government decided to rule out learning in schools and changed it to distance learning using the Internet network. In the same cases in the United States, the learning process in the class is done away with and replaced e-learning. Thus, many teachers are frustrated because

they cannot deliver all the course material through an online system [6]. The COVID-19 pandemic has impacted educators at all levels of elementary, high school, and college [7]. Therefore, educators must be able to adapt quickly to find new ways to conduct online learning. [8]; [9].

The COVID-19 pandemic also led to changes in teaching and learning patterns. During the pandemic time, several things need to be considered if activities are carried out online, including teacher readiness, Information Communication and Technology (ICT) facilities that need to be optimized, and internet technology for poor and vulnerable families. [10]. As of April 1, 2020, the students required to stay at home due to the closure of their institutions at all levels reached a peak of 1.598 billion from 194 countries [11]; [12]. This data shows that students were no longer studying at school but studying at home using the internet network.

After the COVID-19 pandemic decreased, network-based learning has become a habit for teachers and students currently. Learning at school can be done using gadget devices or through available e-learning applications. Thus, teachers and students need to have the ability or skill to operating ICT devices. The same importance in post-pandemic learning is the availability of teaching materials, learning media, and digital learning resources. Currently, the education system is focused on the use of digital platforms, especially in decentralized educational institutions [13]; [14]. Although the COVID-19 pandemic has ended, network-based learning for the educational institution is needed now.

There are many advantages of digital-based learning. It can support active learning, repetition, and feedback in class. The integration of digital technology in education has improved significantly over the past decade. [15]. ICT can help teachers and students collaborate easily, and it could improve student motivation. According to ICILS research shows that 87% of teachers across countries which that ICT helps students to work at a level that is appropriate their learning needs, and 78% allow students to collaborate more effectively. In addition, about 91% of teachers agree with the statement that ICT supports students develop a greater interest in learning [16]; [17].

Digital-based learning after covid 19 will be successful if supported by the availability of digital learning documents. However, some studies show several problems with the digital-based learning process. Among the problems to digital-based learning at Madrasah in Indonesia is the lack of digital learning tools. The term 'digital competence' has become a key component in curriculum development, educational policy, and research during the last decade [18], [19]. There is a strong consensus that teacher candidates have an important role in transferring 21st-century skills into school practice, and research evidence supporting this is available [20]. One of the 21st-century skills that must be mastered by teachers and student are mastering information technology for education and teaching. The COVID-19 pandemic has further fuelled the ongoing digitization process in education, emphasizing the need for further research [21]; [22].

The digital learning system is widely complained about by teachers in Indonesia. In this research, we focus on Islamic Religious Education teachers in Madrasah. Among the problems are their limitations in using technological devices, especially software and hardware. According to Ruswandi (2023), at 15 Madrasah in Bandung,

concluded that just about 21.43% of Islamic Religious Education teachers are highly capable of operating a computer or laptop [23]. The problem of the ability to use ICT is not only in Indonesia but in other countries also happened. According to Trust and Whalen's research, about 65% of teachers need training to improve their capabilities in ICT use. In their study, It was about 325 educators in the State of Massachusetts, found that about 52%, 44%, and 43% of teachers had insufficient knowledge about online teaching strategies and communication tools [24].

To learning in the digital era implemented well, Islamic Religious Education teachers need to have skills in using digital devices and have digital-based learning documents. Learning documents that must be owned by Islamic Religious Education teachers in Madrasah include lesson plans, Islamic Religious Education curriculum documents, assessment planning documents, and assessment result documents. Therefore, the question of this research is whether Islamic Religious Education teachers in Madrasah already have the readiness for digital learning documents. This research topic is important to be studied to find out the extent of the readiness of digital learning documents owned by Islamic Religious Education teachers in Madrasah.

2 Method

This study used a qualitative research design with a descriptive type of design. Research using descriptive design only provides a summary of an existing phenomenon by using numbers to characterize individuals or groups. It assesses the nature of the existing conditions. The goal of descriptive research is limited to characterizing things as reality that exists [25]. The population of this study is Islamic Religious Education teachers in 15 Madrasah Tsanawiyah and Madrasah Aliyah Bandung districts as many as 45 teachers. With a margin of error of 1%, the sample of this study was 42 respondents.

This data collection technique is taken in 2 ways, it will be interview techniques and questionnaires. The interview technique was used to reveal data about the difficulties and constraints of Islamic Religious Education teachers in providing digital learning documents. The number of statements was 10 items. The questions on the questionnaire are divided into two parts. The first part is a question about the identity of the research sample, and the second part is a question about the readiness of digital learning documents for Islamic Religious Education teachers in Madrasah. The questionnaire instrument scale used four scales (1-4). The categories included Very Complete (VC), Complete (C), Incomplete (IC), and Not Very Complete (NVC). The preparation of test instruments and questionnaires adjusted the indicators on each variable.

The data analysis technique is a data processing technique that aims to obtain an accurate conclusion. In this survey study, researchers used quantitative data analysis techniques with a descriptive approach. The quantitative approach is a research approach primarily using the postpositivist paradigm in developing science, such as thinking about cause and effect, reduction to variables, hypotheses, and specific questions, using measurements and observations, and theoretical testing.

The reference for interpreting digital learning document readiness questionnaires is by using the following interpretation table.

Percentages	Interpretation
75.00><100.00	Very ready
50.00> <74.99	Ready
25.00> <49.99	Less Ready
0 > < 24.99	Not ready

Table 1. References for Interpretation of Digital Learning Document Readiness

3 Result and Discussion

3.1 Readiness of Digital Material Learning Islamic Religious Education

The aim of education in the 21st century is that students must be ready to be globally competent. The ultimate goal of education is to prepare students to become professionals and to contribute to their communities, which has been one of the outstanding challenges of this century [26]. Critical thinking skills and problem-solving are fundamental to students for 21st-century learning. A survey conducted by Insani (2016) found that 96% of teaching materials used by teachers in Indonesia are printed materials (textbooks, student paper work), and only 4% use electronic books [27]. This research shows that teachers in Indonesia still predominantly use teaching materials in printed form, and only 4% use electronic teaching materials.

The results of this research regarding the readiness of digital documents as teaching materials for Islamic Religious Education subjects are tabulated in the following table:

Readiness	Frequency	Percentage	Score
Very Complete	0	0,00	0
Complete	24	57,14	72
Less Complete	18	42,86	36
Incomplete	0	0,00	0
Overall	42	100	108

Table 2. Readiness of Digital Teaching Materials for Islamic Religious Education Subjects

Referring to Table 2 above shows that none of the respondents had digital document materials teaching Islamic Religious Education subjects that were "very complete." As many as 57.14% of respondents had "complete" teaching materials, as many as 42.86% of respondents had "less complete" teaching materials, and there were no respondents who did not have digital documents of Islamic Religious Education subject teaching materials. The readiness score for digital teaching materials is 108, and the maximum score is 168. By referring to the interpretation table, the readiness of digital teaching materials is 64.29, which is at the level "ready".

Teaching materials have an essential role in learning in the 21st century. But unfortunately, not all teachers have digital teaching materials on Islamic Religious Education subjects in Madrasah. The results of this study above showed that only 57.14% of Islamic Religious Education teachers had "complete" teaching material documents, while 42.86% were "less complete". Teaching materials are an important part of teaching. Teaching materials can help students learn something. Effective teaching materials will help the student experience learning activities [28]. Digital-based learning has many advantages over the conventional learning process. The survey results presented by Evans in 2018 showed an increase in academic outcome test scores of 59% and an easier understanding of learning content by 52%. The results of this survey concluded that the involvement of technology can improve student learning outcomes in grades 6, 7, and 8 students. [29]

Students do not always like digital-based learning devices. Referencing the results of his research, Sorensen in 2018 revealed that students are not always enthusiastic about adopting new digital tools or realizing the benefits they provide in supporting learning [30]. It is caused by First; many students do not have a laptop or computer device. Second, the quality of the internet signal in certain areas is low. Thus, Madrasah teachers still must use teaching materials in the form of printed books. Many Islamic Religious Education teachers still use learning media in the form of textbooks provided by the government or published by private publishers [31]. On the other hand, many teachers have started to innovate by using e-books to teach Islamic Religious Education subjects in schools. Using e-books for Islamic Religious Education subjects is more prevalent among teachers in elementary schools.

3.2 Readiness of Digital Curriculum Document

A curriculum document is one of the essential components that Islamic Religious Education teachers must have. For curriculum implementation in schools to be successful, there needs to be the availability of curriculum documents and various instruments as a reference for implementation [32]. Digital documents in education include publications, online documents, web resources, and multimedia materials. [33]. Islamic Religious Education teachers in Madrasah must have curriculum documents such as annual programs, semester programs, lesson plans, and learning outcomes, or a list of competencies that must be achieved by Madrasah students.

The results show that digital competence has become an increasingly complex concept with a crucial emphasis in the current curriculum and is strongly linked to a 21st-century education. [19]. The current curriculum recommended to students will have at least one multidisciplinary learning module each year, which provides opportunities to use technology and digital devices in projects, inquiries, and topics that learners will work on [34]. The current curriculum must be adaptive to technological and informational developments. Thus, Islamic Religious Education teachers must have a complete digital curriculum document.

The readiness of Islamic Religious Education curriculum documents in the form of soft files owned by Islamic Religious Education teachers tabulated in the following table.

Readiness	Frequency	Percentage	Total Score
Very Complete	3	7,15	12
Complete	25	59,52	75
Less Complete	14	33,33	28
Incomplete	0	0,00	0
Overall	42	100	115

Table 3. Readiness for Curriculum Digital Document Islamic Religious Education Subject

Based on the 42 respondents in Table 3, only 7.15% of Islamic Religious Education teachers have a "Very Complete" curriculum document. As many as 59.52% of respondents had a "complete" curriculum document soft file, as many as 33.33% of respondents had a "less complete" curriculum soft file, and there were no respondents who did not have an Islamic Religious Education subject curriculum digital document. The curriculum file readiness score is 115, and the maximum score is 168. By referring to the interpretation table, the readiness of curriculum documents is 68.45, which is at the level of "ready".

3.3 Readiness of Digital Lesson Plan Document

0

0

42

Less Complete

Incomplete

Overall

The lesson plan is an essential part of the learning process. After the COVID-19 pandemic, a digital lesson plan document is necessary for teachers to guide their teaching steps. Planning is an important step that reminds teachers what to do in class and makes students confident about their teachers [35]. Good planning will lead to effective learning. There is no doubt that lesson planning is a necessary product of lesson study [36]. Teachers should use lesson plans to interpret them as guiding what students and teachers need to do in classroom learning activities. [37], [38]. For classroom learning to be more orderly and organized, English Religious Education teachers need to have lesson plan documents to share with students so that students know the stages of learning English Religious Education subjects in one semester. The readiness of the lesson plan document for English Religious Education Madrasah teachers will be tabulate in the following table:

iness of the lesson plan document for English Religious Education Madrasah teachers will be tabulate in the following table:

Table 4. Readiness of Digital Lesson Plan Document for Islamic Religious Education Subjects

Readiness Frequency Percentage Total Score

Very Complete 15 35,71 60

Complete 27 64,29 81

0.00

0.00

100

0

0

141

Based on table 4 above, as many as 35.71 respondents have a "very complete" lesson plan, as many as 64.29% of respondents have a "complete" lesson plan, and no respondents do not have an Islamic Religious Education subject lesson plan document. The digital lesson plan document score is 141, and the maximum score is 168.

Referring to the interpretation table, the lesson plan readiness of Islamic Religious Education subjects is 83.92, which is at the "Very Ready" level.

The outcome of the research on lesson plan readiness above shows that not all Islamic Religious Education teachers have a complete lesson plan document. The lesson plan must contain 13 components (1) school identification, (2) topic/sub-theme identity, (3) class/semester, (4) topic matter, (5) time allocation, (6) lesson goals, (7) basic skills and metrics, (8) teaching tools, (9) teaching strategies, (10) lesson materials, (11) lesson resources, (12) lesson measures and (12) evaluation. There are several obstacles for teachers in preparing lesson plans. First, because of the lack of teacher ability to use ICT devices [39].

3.4 Readiness of Exam Content Outline

An exam content outline is essential to prepare before preparing the assessment sheet for students. In digital-based learning post-pandemic, teachers must have an exam content outline for Islamic Religious Education subjects. It makes it easier for teachers to conduct summative or formative assessments or observational assessments of learners abilities. The result of the study on the readiness exam content outline digital documents of Islamic Religious Education teachers in madrasah will be tabulated in the following table:

Readiness	Frequency	Percentage	Score	
Very Complete	0	0,00	0	
Complete	27	64,29	81	
Less Complete	15	35,71	30	
Incomplete	0	0,00	0	
Overall	42	100	111	

Table 5. Readiness of Digital Exam Content Outline Islamic Religious Education Subject

Based on Table 5 above, none of the respondents had exam content outline digital documents that were "very complete." About 64.29% of respondents had the exam content outline digital document complete," and as many as 35.71% of respondents had the "less complete" exam content outline digital document. The readiness score of the exam content outline digital document is 111, and the maximum score is 168. By referring to the interpretation table, the readiness of the exam content outline digital document is 66.07, which is at the level "ready".

The outcome of the research on the readiness of the exam content outlined above shows that most Islamic religious education teachers have a complete exam content outline. The exam content outline serves to align the collective questions, so this will also facilitate the evaluation process. Several essential things need to be done by teachers in conducting assessments, namely compiling standard test kits. [40] The assessment instrument includes an exam content outline, questions, answer keys, and assessment rubrics. Good test questions are arranged based on the existing exam content outline. The exam content outline (blueprint test or table of specifications) is a

defined information matrix used as a guideline for writing and assembling questions into tests. The purpose of its preparation is to determine the scope and persuasion of the assessment as precisely as possible so that it can be a guide in writing questions [41]. Some teachers still ignore the exam content outline in making assessments. As revealed by April in her research, of all the questions made by teachers, 82% do not have the exam content outline. [42] Many aspects become obstacles for teachers in compiling the exam content outline, making them less qualified [43]. Teachers still do not understand how to choose the correct basic competency. A good exam content outline must include the following requirements: (a) The exam content outline must represent the content of the syllabus, curriculum, or material appropriately and proportionally. (b) The components are described clearly and are easily understood. (c) The material to be asked can be made into a question [44].

3.5 Readiness of Digital Assessment Document

In education, the term assessment is often misunderstood. There is Assessment as Learning (AaL), Assessment for Learning (AfL), and Assessment of Learning (AoL). However, the different terms all refer to how to facilitate student learning for the maximum achievement [45]. Assessment has a significant influence on student learning. The assessment determines what students consider essential; it affects knowledge of learning activities and the quality of students' participation in these tasks [46]. Therefore, the Islamic Religious Education teacher needs a digital assessment document to make it easier to measure learning outcomes and provide a good impact. The digital assessment document readiness research results on madrasah teachers will be tabulated in the following table:

Readiness	Frequency	Percentage	Score
Very Complete	2	4,77	8
Complete	26	61,90	78
Less Complete	14	33,33	28
Incomplete	0	0,00	0
Overall	42	100	114

Table 6. Readiness of Digital Assessment Document Islamic Religious Education Subject

Based on Table 6 above, only 4.77% of respondents have a "very complete" digital assessment document. As many as 61.90% of respondents had a "complete" digital assessment document, as many as 33.33% of respondents had a less complete digital assessment document, and there were no respondents who did not have a digital assessment document for Islamic Religious Education subjects. The readiness score for digital teaching materials is 114, and the maximum score is 168. By referring to the interpretation table, the readiness of the digital assessment document is 67.85, which is at the level "ready".

The outcome of the research on the readiness digital assessment document above shows that most Islamic Religious Education teachers have a complete digital assessment document. Digital assessment documents, or assessment documents owned by teachers, are information processes obtained relatively easily from several goals or objectives that want to be known, namely activities to measure the student learning outcomes. [47] Other terms often used and related to assessment need to be clarified to avoid teacher errors in having digital assessment documents. They are testing, measurement, and evaluation. The four terms, including assessment, have different meanings but are often used in overlapping ways, so that confusion occurs. The difference in terms is natural and does not change the essence of the meaning of assessment itself. In other words, the assessment is the collection of information that measures the students learning outcomes. They include employee performance and the quality of higher education institutions. It aims to collect information about how the improved quality of the resource function is being managed by an institution and its community. This statement defines assessment in context, encompassing efforts towards improvement beyond those related to the learner's learning and development. [48].

For the assessment to be done in the expected time and for the results to be effective and in the right direction, it is necessary to follow the following steps: First, formulate the purpose of conducting the learning evaluation because an assessment without a goal will run without direction and lose its meaning and function. Second, establish the aspects evaluated as cognitive, affective, or psychomotor aspects. Third, choose and determine the techniques used in the implementation assessment, for example, whether using test or non-test techniques. Fourth, compile measuring instruments used in measuring and assessing student learning outcomes, such as test question items. Fifth, determine benchmarks, norms, or criteria used as a guide or standard in providing an interpretation of evaluation data. [49].

4 Conclusion

The readiness of digital learning documents owned by Islamic Religious Education teachers in Madrasah is not fully prepared for digital-based learning after the COVID-19 pandemic. The results showed that only 7.14% of teachers have a very complete curriculum document. About 57.14% of teachers have very complete digital teaching materials about 35,71% respondents have a "very complete" Islamic Religious Education lesson plan and only 4.77% of teachers have very complete assessment digital documents and none of the respondents had exam content outline digital document that were "very complete".

References

 X. D. B. M. C. Daniel and T. A. Wasonga, "Teachers' Perspectives on Teaching and Learning during the Pandemic in the United States," *Int. J.*, vol. 11, no. 3, pp. 122–140, 2022, doi: 10.22521/edupij.2022.113.7.

- T. S. Foulger, K. J. Graziano, D. Schmidt-Crawford, and D. A. Slykhuis, "Teacher educator technology competencies," *J. Technol. Teach. Educ.*, vol. 25, no. 4, pp. 413–448, 2017.
- 3. W. Cao *et al.*, "The psychological impact of the COVID-19 epidemic on college students in China," *Psychiatry Res.*, vol. 287, p. 112934, 2020, doi: 10.1016/j.psychres.2020.112934.
- S. K. Brooks *et al.*, "The psychological impact of quarantine and how to reduce it: rapid review of the evidence," *Lancet*, vol. 395, no. 10227, pp. 912–920, 2020, doi: 10.1016/S0140-6736(20)30460-8.
- T. Elmer, K. Mepham, and C. Stadtfeld, "Students under lockdown: Comparisons of students' social networks and mental health before and during the COVID-19 crisis in Switzerland," *PLoS One*, vol. 15, no. 7, p. e0236337, 2020, doi: 10.1371/journal.pone.0236337.
- B. Herold and H. Kurtz, "Teachers work two hours less per day during COVID-19: 8 key EdWeek survey findings," *Educ. Week*, 2020.
- 7. I. Hoti, B. Dragusha, and V. Ndou, "Online Teaching during the COVID-19 Pandemic: A Case Study of Albania," *Adm. Sci.*, vol. 12, no. 3, p. 116, 2022, doi: 10.3390/admsci12030116.
- 8. J. L. Guzmán *et al.*, "Teaching Control during the COVID-19 Pandemic," *IFAC-PapersOnLine*, vol. 55, no. 17, pp. 31–36, 2022, doi: 10.1016/j.ifacol.2022.09.221.
- 9. P. Tarkar, "Impact of COVID-19 pandemic on education system," Int. J. Adv. Sci. Technol., vol. 29, no. 9, pp. 3812–3814, 2020.
- Nurmawiya and K. A. Harvian, "Public sentiment towards face-to-face activities during the COVID-19 pandemic in Indonesia," *Procedia Comput. Sci.*, vol. 197, pp. 529–537, 2022, doi: 10.1016/j.procs.2021.12.170.
- A. Aristovnik, D. Keržič, D. Ravšelj, N. Tomaževič, and L. Umek, "Impacts of the COVID-19 Pandemic on Life of Higher Education Students: A Global Perspective," Sustainability, vol. 12, no. 20, 2020, doi: 10.3390/su12208438.
- 12. R. Tormey, I. Sarrade, and P. Jermann, "Online learning experience questionnaire; teaching support and center for digital education, EPFL." 2020. [Online]. Available: https://www.epfl.ch/education/educational-initiatives/online-lecturing/
- T. Hillman, A. B. Rensfeldt, and J. Ivarsson, "Brave new platforms: a possible platform future for highly decentralised schooling," *Learn. Media Technol.*, vol. 45, no. 1, pp. 7–16, 2020, doi: 10.1080/17439884.2020.168374.
- 14. B. Williamson, R. Eynon, and J. Potter, "Pandemic politics, pedagogies and practices: digital technologies and distance education during the coronavirus emergency," *Learn. Media Technol.*, vol. 45, no. 2, pp. 107–114, 2020, doi: 10.1080/17439884.2020.1761641.
- D. Tautz, D. A. Sprenger, and A. Schwaninger, "Evaluation of four digital tools and their perceived impact on active learning, repetition and feedback in a large university class," *Comput. Educ.*, vol. 175, p. 104338, 2021, doi: 10.1016/j.compedu.2021.104338.
- J. Fraillon, J. Ainley, W. Schulz, T. Friedman, and D. Duckworth, *Preparing for life in a digital world: IEA international computer and information literacy study 2018 international report*. Melbourne, Australia: Australia: Australian Council for Educational Research (ACER)., 2019.
- D. Hillmayr, L. Ziernwald, F. Reinhold, S. I. Hofer, and K. M. Reiss, "The potential of digital tools to enhance mathematics and science learning in secondary schools: A contextspecific meta-analysis," *Comput. Educ.*, vol. 153, p. 103897, 2020, doi: 10.1016/j.compedu.2020.103897.

- O. Erstad and J. Voogt, "The Twenty-First Century Curriculum: Issues and Challenges," in Second Handbook of Information Technology in Primary and Secondary Education, J. Voogt, G. Knezek, R. Christensen, and K.-W. Lai, Eds., Cham: Springer International Publishing, 2018, pp. 19–36. doi: 10.1007/978-3-319-71054-9_1.
- O. Erstad, S. Kjällander, and S. Järvelä, "Facing the challenges of 'digital competence," *Nord. J. Digit. Lit.*, vol. 16, no. 2, pp. 77–87, 2021, doi: 10.18261/issn.1891-943x-2021-02-04.
- P. Häkkinen, S. Järvelä, K. Mäkitalo-Siegl, A. Ahonen, P. Näykki, and T. Valtonen, "Preparing teacher-students for twenty-first-century learning practices (PREP 21): a framework for enhancing collaborative problem-solving and strategic learning skills," *Teach. Teach.*, vol. 23, no. 1, pp. 25–41, 2017, doi: 10.1080/13540602.2016.1203772.
- C. Carrillo and M. A. Flores, "COVID-19 and teacher education: a literature review of online teaching and learning practices," *Eur. J. Teach. Educ.*, vol. 43, no. 4, pp. 466–487, 2020, doi: 10.1080/02619768.2020.1821184.
- L. Darling-Hammond and M. E. Hyler, "Preparing educators for the time of COVID ...
 and beyond," Eur. J. Teach. Educ., vol. 43, no. 4, pp. 457–465, 2020, doi: 10.1080/02619768.2020.1816961.
- A. Ruswandi, M. A. Firdaus, and R. Ruswandi, "Readiness of Islamic Religious Education Teachers for Digital Learning Post Pandemic Covid 19," *Int. J. Ethno-Sciences Educ. Res.*, vol. 3, no. 3, 2023, doi: 10.46336/jieer.v3i3.465.
- T. Trust and J. Whalen, "Should teachers be trained in emergency remote teaching? Lessons learned from the COVID-19 pandemic," *J. Technol. Teach. Educ.*, vol. 28, no. 2, pp. 189–199, 2020.
- 25. J. H. McMil and S. Schumacher, *Research in Education: Evidence-Based Inquiry*, Seventh Ed. Pearson Education Limited, 2014.
- P. Sinaga, W. Setiawan, and M. Liana, "The impact of electronic interactive teaching materials (EITMs) in e-learning on junior high school students' critical thinking skills," *Think. Ski. Creat.*, vol. 46, p. 101066, 2022, doi: 10.1016/j.tsc.2022.101066.
- M. D. Insani, "Studi pendahuluan identifikasi kesulitan dalam pembelajaran pada guru IPA SMP Se-Kota Malang," *J. Pendidik. Biol.*, vol. 7, no. 2, pp. 81–93, 2017, doi: 10.17977/um052v7i2p81-93.
- M. Indriayu, "Effectiveness of Experiential Learning-Based Teaching Material in Mathematics.," *Int. J. Eval. Res. Educ.*, vol. 8, no. 1, pp. 57–63, 2019, doi: 10.11591/ijere.v8.i1.
- 29. J. A. Evans, "Digital Learning: Peril or Promise for Our K-12 Students. National Briefing Paper--Speak Up 2018/19.," *Proj. Tomorrow*, 2019.
- 30. M. T. Sørensen, "The Students' Choice of Technology A pragmatic and outcome-focused Approach," in *The Digital Turn in Higher Education: International Perspectives on Learning and Teaching in a Changing World*, D. Kergel, B. Heidkamp, P. K. Telléus, T. Rachwal, and S. Nowakowski, Eds., Wiesbaden: Springer Fachmedien Wiesbaden, 2018, pp. 161–174. doi: 10.1007/978-3-658-19925-8_12.
- 31. F. Francisca, J. O. V. Zahra, S. H. Anggraeni, and A. N. Aeni, "Pengembangan E-book BUDIMAS 'Buku Digital Agama Islam' untuk Pembelajaran PAI pada Siswa Sekolah Dasar," *J. Basicedu*, vol. 6, no. 3, pp. 5268–5277, 2022, doi: 10.31004/basicedu.v6i3.3043.
- 32. A. S. Salabi, "Efektivitas Dalam Implementasi Kurikulum Sekolah," *Educ. Achiev. J. Sci. Res.*, 2020, doi: 10.51178/jsr.v1i1.177.
- 33. H. Besser, "Designing a digital documents curriculum," in *Proceedings of HICSS-29: 29th Hawaii International Conference on System Sciences*, 1996, pp. 153–158 vol.5. doi: 10.1109/HICSS.1996.495333.

- S. Riikonen, P. Seitamaa-Hakkarainen, and K. Hakkarainen, "Bringing maker practices to school: tracing discursive and materially mediated aspects of student teams' collaborative making processes," *Int. J. Comput. Collab. Learn.*, vol. 15, no. 3, pp. 319–349, 2020, doi: 10.1007/s11412-020-09330-6.
- 35. J. Harmer, *The practice of English language teaching*. Edinburgh Gate: Longman Publishing, 2001.
- T. Fujii, "Designing and Adapting Tasks in Lesson Planning: A Critical Process of Lesson Study," in *Theory and Practice of Lesson Study in Mathematics: An International Perspective*, R. Huang, A. Takahashi, and J. P. da Ponte, Eds., Cham: Springer International Publishing, 2019, pp. 681–704. doi: 10.1007/978-3-030-04031-4 33.
- 37. F. Edi, A. Ambiyar, U. Verawardina, S. Samsir, and R. Watrianthos, "Improving Lesson Plan Models Using Online-Based in the New Normal Era," *EDUTEC J. Educ. Technol.*, vol. 4, no. 3, pp. 527–535, 2021, doi: 10.29062/edu.y4i3.109.
- F. Coenders and N. Verhoef, "Lesson Study: professional development (PD) for beginning and experienced teachers," *Prof. Dev. Educ.*, vol. 45, no. 2, pp. 217–230, 2019, doi: 10.1080/19415257.2018.1430050.
- 39. N. P. S. Lingude, "Kompetensi Pedagogik Guru dalam Penyusunan Rencana Pelaksanaan Pembelajaran (RPP) Tematik di MIN 2 Manado," *J. Elem. Educ. Res.*, vol. 1, no. 1, pp. 27–33, 2021, doi: 10.30984/jeer.v1i1.40.
- 40. M. Listyawati, "Pengembangan perangkat pembelajaran IPA Terpadu di SMP," *J. Innov. Sci. Educ.*, vol. 1, no. 1, 2012.
- 41. R. Fahdini, E. Mulyadi, D. Suhandani, and J. Julia, "Identifikasi Kompetensi Guru sebagai Cerminan Profesionalisme Tenaga Pendidik di Kabupaten Sumedang," *Mimb. Sekol. Dasar*, vol. 1, no. 1, pp. 33–42, 2014, doi: 10.53400/mimbar-sd.v1i2.874.
- 42. S. April, "Meningkatkan Kemampuan Guru Dalam Menyusun Kisi-Kisi Soal Dengan Metode Pendampingan Pola œOCF di SDN Yanti Jogoroto," *JDMP (Jurnal Din. Manaj. Pendidikan)*, vol. 4, no. 1, pp. 17–24, 2019, doi: 10.26740/jdmp.v4n1.p17-24.
- 43. R. Ananda and F. Fadhilaturrahmi, "Analisis Kemampuan Guru Sekolah Dasar dalam Implementasi Pembelajaran Tematik di SD," *J. Basicedu*, vol. 2, no. 2, pp. 11–21, 2018.
- 44. P. Parni, "Upaya meningkatkan keterampilan menyusun kisi-kisi penilaian melalui in house training," *Teach. Educ. Res.*, vol. 2, no. 1, pp. 22–30, 2020, doi: 10.33292/ter.v2i1.61.
- 45. L. H. Schellekens, H. G. J. Bok, L. H. de Jong, M. F. van der Schaaf, W. D. J. Kremer, and C. P. M. van der Vleuten, "A scoping review on the notions of Assessment as Learning (AaL), Assessment for Learning (AfL), and Assessment of Learning (AoL)," *Stud. Educ. Eval.*, vol. 71, p. 101094, 2021, doi: 10.1016/j.stueduc.2021.101094.
- 46. D. Boud and N. Falchikov, "Aligning assessment with long-term learning," *Assess.* \& *Eval. High. Educ.*, vol. 31, no. 4, pp. 399–413, 2006, doi: 10.1080/02602930600679050.
- 47. S. Hastuti and I. Marzuki, "Model asesmen alternatif dalam evaluasi pembelajaran di era pandemi Covid-19," *Tadarus Tarbawy J. Kaji. Islam Dan Pendidik.*, vol. 3, no. 1, 2021, doi: 10.31000/jkip.v3i1.4252.
- 48. H. M. Anderson, G. Anaya, E. Bird, and D. L. Moore, "A review of educational assessment," *Am. J. Pharm. Educ.*, vol. 69, no. 1–5, p. 84, 2005.
- 49. A. Riadi, "Kompetensi Guru dalam pelaksanaan evaluasi pembelajaran," *Ittihad*, vol. 15, no. 28, pp. 52–67, 2018, doi: 10.18592/ittihad.v15i28.1933.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (http://creativecommons.org/licenses/by-nc/4.0/), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

