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Accelerating the digitalisation of learning post-COVID-19 era to improve the pedagogical competence of pre-service Arabic teachers

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ABSTRACT

The aim of this study is to investigate the urgency of accelerated digitalisation of learning to enhance the pedagogical competence of pre-service Arabic teachers in the post-COVID-19 era. This study used a qualitative method, and the data were collected through observation, interview, and documentation. Furthermore, the collected data were analysed with an interactive approach developed by Miles, Huberman, and Saldana. The research results show the pre-service Arabic teachers have created lesson plans based on technology, pedagogy, and content knowledge (TPACK) to cover material aspects, methods, and learning media so well. In addition, pre-service Arabic teachers have implemented teaching practices using the TPACK framework, as shown in the application of information technology-based learning media, and carry out learning evaluations using online platforms such as Quizziz, Kahoot, and Google Form, which are presented in video form learning. The results of this study indicate that the acceleration of digitalisation of learning has an impact on increasing the pedagogical competence of pre-service Arabic teachers. Therefore, as an implication, digitising learning in the form of video learning practices can be used as a medium for learning observation in the preparation program for pre-service Arabic teachers post-Covid-19 Era.

PUBLIC INTEREST STATEMENT

In the 21st century era, learning must be designed to achieve 21st century competencies, namely digital literacy competencies. This article describes the importance of digital competence in learning to improve the pedagogical competence of Pre-Service teachers who are in fact reformers and extensions of teachers. One of the impacts of the covid 19 pandemic is the acceleration of learning digitization which is marked by the rise of online learning using digital media, the use of various learning management systems, and online platforms. This technological transformation greatly supports the improvement of the teaching competence of digital era teachers, teachers are increasingly skilled and creative in integrating technology, pedagogics, and content in learning. The covid 19 pandemic also has an impact on economic and industrial transformation and other fields, where the role of digital technology is very important. So that Digital Transformation is needed for the sustainability of all sectors of life.

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Teachers & Teacher Education; Technology and Learning Media; Higher Education

Introduction

The pedagogical ability of teachers becomes one of the most fundamental aspects of education, especially in the current technological era (Sulaimanova et al., 2021). It becomes the main requirement in the implementation of effective teaching and learning activities and should be mastered by the teachers (Rusilowati & Wahyudi, 2020). The rationale for the mastery is because teachers are key factors that may affect the implementation of quality education for the nation's children; the mastery of teaching

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pedagogical competencies is needed at all levels of education, from primary education level for young children to higher education (Voronin et al., 2020). In addition to that, recent studies mention the importance of mastering teaching pedagogical abilities because it affects cognitive development (Peters et al., 2022), which in turn improves students' academic achievement (Kporyi & Arko, 2021). From 2020 to 2021, there have been 56,500 research results that discuss the pedagogical abilities of teachers.

Despite many studies on the importance of mastering teacher pedagogical abilities that have been conducted in various countries in the world, such as in Japan on the professional development of English teachers in applying pedagogical skills in the classroom (Glasgow & Hale, 2018), in the United States on the development of teacher pedagogical abilities in increasing the effectiveness of learning (Diehm & Hendricks, 2021), and also in Germany on the influence of teacher pedagogical abilities on the cognitive development of students (Peters et al., 2022), it still requires more contextual studies. In Indonesia, for example, the problem of mastering teacher pedagogical abilities requires special attention as the quality of education in Indonesia is considered still low (Priyambodo & Hasanah, 2021), and one of the contributing factors is the low pedagogical ability of the teachers (Leasa et al., 2021). The pedagogical abilities of the teachers required in the technology era deal with the ability to manage learning activities, including planning, implementation, and evaluation of the learning activities (Biasutti et al., 2021; Rapanta et al., 2020), by utilising information and communication technology (ICT) in order to meet the 21st century competencies, namely information technology competencies (ICT) literacy (Hasin & Nasir, 2021). In order to improve the ICT literacy competence of students effectively as well as to prepare quality graduates, teacher competence is needed in integrating technology and pedagogical knowledge in learning (Maryuningsih et al., 2020).

The global pandemic of COVID-19 has affected all aspects of life. Initially, the pandemic had a major impact on the economic sector, which in turn also had an impact on the education sector, from elementary to higher education levels (Aristovnik et al., 2020). The impact of the COVID-19 pandemic on higher education began to emerge when UNESCO and WHO called for the temporary closure and social restriction of classical learning activities at educational institutions during the pandemic. UNESCO and WHO ask countries to implement distant and online learning with various delivery strategies that may be easily and safely accessed by students during the pandemic (Tadesse & Muluye, 2020). The transitional policies during the pandemic in the context of learning modes, including foreign language teaching, have disrupted the learning activities that the classroom-based teaching (in-person learning) paradigm has been forced to shift to online platforms (Kanchai, 2021). The Covid-19 pandemic situation has forced lecturers and students to make sudden transitions from conventional education to online education, namely learning activities that use electronic media or information technology in an emergency without any prior preparation or guidelines (Khlaif et al., 2021). This transition has been very challenging and frustrating for some instructors, lecturers, and students who still have limited access to the Internet and low technological competencies (Aborode et al., 2020). The issue has become the major issue in the implementation of online learning, and it should be supported by the provision of stable internet connectivity and technology-literate human resources (Abou-Khalil et al., 2021).

This condition occurred in the early days of the COVID-19 pandemic, but over time, higher education institutions in the world have designed and used various learning management systems (LMS) (Tawalbeh, 2017) and various online learning applications to manage the learning activities for optimal learning outcomes. Universities have been working on implementing optimal online learning as a very surprising social fact occurred in the world of education throughout the world. One of the social facts is in the form of accelerating the digitisation of learning in educational institutions, including universities during the COVID-19 pandemic (Cone et al., 2021; Handayani et al., 2021; Jena, 2020; Skulmowski & Rey, 2020; Taglietti et al., 2021).

The focus of this study is the pedagogical competence of pre-service Arabic teachers, as the quality of education that can be offered to future generations is highly dependent on the quality of student-teacher candidates in facilitating learning in this technological era (Hwang & Fu, 2020). Besides the issues with the teacher's pedagogical competencies, there is also an assumption that Arabic is a foreign language that is very difficult to learn and boring, especially when taught in a monotonous and verbal manner (Hashim et al., 2019). For this reason, the pedagogical competence of pre-service Arabic teachers should be maximized. In accordance with the new trend of Arabic language learning, in addition to

developing an Arabic learning curriculum, the pedagogical abilities of Arabic teachers should also be improved (Mohamed Salama Eissa, 2019; Sali & Ancho, 2021). This paper not only describes the evidence of accelerated learning digitalisation in microteaching lectures for pre-service Arabic teachers during the COVID-19 pandemic, but it also describes the improvement in the pedagogical abilities of pre-service Arabic teachers related to the planning and implementation of learning during the COVID-19 pandemic and post-COVID-19.

Literature review

Accelerated learning digitalisation during the COVID-19 pandemic

During the Covid-19 pandemic and especially in the post-Covid-19 era, there has been an acceleration of digital transformation in learning. In the context of digital learning, educators should be able to take advantage of digitalisation both online and in person as media in learning. Learning that initially took place in in-person or blended learning was forced to transform into fully online learning, popularly known as MOOCs (massive open online courses) (Bakhmat et al., 2021) that utilise digital media and platforms for primary, secondary, and higher education (Erdmann et al., 2021). The digital transformation in learning or the digitisation of learning may occur in the form of using learning media platforms in a learning management system (LMS) (Rüdolf & Daniela, 2021).

In the midst of the COVID-19 outbreak and the learning has to remain available for the students, the government, through educational institutions, strives to continue carrying out learning activities by complying with the health protocols and social restrictions in order to prevent transmission of the coronavirus. Therefore, learning activities have been carried out online. The shifted learning mode to online learning is likely to become the future of education in the world, including in Indonesia. The utilisation of ICT in 21st-century learning will be the relevant representation of global modernity as well as the answer to various problems related to human resources and the limitations of physical space infrastructure. However, the trend has not been evenly accommodated at the universities until finally, the COVID-19 pandemic emerged. The COVID-19 pandemic has triggered the transitional learning policy from classical to online learning modes, which force lecturers and students to accelerate learning in achieving digital literacy competencies (Cicha et al., 2021; Pasaribu & Dewi, 2021). Online learning based on the epidemiological point of view, the COVID-19 pandemic might be considered the best immediate reaction, but for educators, it is a challenge as they have to re-format the learning materials appropriately to fit the needs of students (Alsmadi et al., 2021).

In relation to the Covid-19 pandemic outbreak, the education institutions from primary to higher education levels experience significant challenges in digitising the learning in order to keep learning activities and meet the criteria of industrial revolution 4.0, accommodating competent graduates relevant with the 21st-century skills, namely the ability to think critically and solve the problem, communicatively and collaboratively, as well as creatively and innovatively (Elfirdoussi et al., 2020; Melnychenko & Zheliaskova, 2021; Sofya et al., 2021). This is a very difficult challenge for universities in facing the digital era or the era of the industrial revolution 4.0 because universities are at the forefront of preparing superior and competitive human resources in the face of the digital era (Novita et al., 2020; Siagian, 2020).

The use of TPACK framework in the microteaching practice for teacher students

In addition to the learning strategies, the integration of technology in learning activities through the TPACK concept (technology, pedagogy, and content knowledge) also plays an important role in supporting the development of 4C abilities for student teacher candidates (Tunjera & Chigona, 2020). Student teachers may use digital technology to manage, integrate, and construct information or knowledge; they should be able to utilise technology effectively to investigate, organise, evaluate, and communicate knowledge with the class. So that in the process of teaching practice at university, lecturers are expected to apply digitalisation of the learning activities (Falloon, 2020). The application of the TPACK framework

may explore student teacher candidates in increasing their capacity to use information and communications technology (ICT) in learning (Istiningsih, 2022).

The implementation of the TPACK framework in teaching practice is one form of accelerating the digitisation of learning during the COVID-19 pandemic. TPACK is a conceptual framework for designing learning models by integrating three main aspects, namely technology, pedagogy, and content (Arifin et al., 2020). TPACK was first introduced by Koehler and Mishra based on Lee Shulman's conceptual framework on pedagogical content knowledge (PCK) (Greene et al., 2021; Manacap et al., 2021; Uluçinar, 2021). TPACK is a connection and interaction between content knowledge (material being taught), technological knowledge (computers, internet, digital video, etc.), pedagogic knowledge (practices, processes, strategies, procedures, and learning methods), and the transformations that occur when combining these domains (Beri & Sharma, 2021; Santos & Castro, 2021). Thus, TPACK is considered a knowledge framework for teachers and prospective teachers that is relevant to be applied in the context of 21st-century learning. For this reason, TPACK is believed to be essential to be mastered by teachers and prospective teachers so that learning activities run effectively and efficiently (Azizah et al., 2021).

In addition to the essential need to master TPACK by the prospective teachers, mastering the framework will help the student teachers determine their ability to integrate technology in learning and teaching effectively and efficiently to meet 21st-century skills (Beyranvand & Mohamadi Zenouzagh, 2021; Deocampo, 2020). The implication of TPACK is that the presence of technology is believed to play an important role in learning and that learning is complex and dynamic, which requires the utilisation of technology (Zhang & Tang, 2021).

Pedagogical abilities of pre-service Arabic teachers in the digital era

Along with the vast development of information and technology (IT) systems in higher education in the 21st century, learning should be designed in such a way that it may achieve 21st century competencies, such as digital literacy competencies. The presence of digital transformation in the context of education imposes a requirement that teachers are required to master digital competency (Starkey, 2020). For this reason, re-service Arabic teachers need to be equipped with pedagogical competences in accordance with the pedagogy in the digital era, namely the ability to plan and implement learning using ICT, including designing materials and tasks for the learning process. This is in accordance with Galperin's pedagogical theory, which offers an approach to designing pedagogical digital environments by developing their digital pedagogical competences in order to improve the quality of students' learning (Engeness, 2021; Fahri et al., 2021). The digital pedagogical ability (PDC) is the ability of the teachers to utilise ICT in their teaching practice (From, 2017).

In daily life, students of the 21st century use technology for various online activities, and, of course, they also expect similar circumstances in the classroom environment that technology should present in the learning process. The results of the study indicate that the potential for future success of students might be hampered if their digital skills are not well-accommodated. To overcome this issue, teachers and student teacher candidates are expected to be able to design and utilise digital technology in their learning practice, such as designing and utilising various digital learning applications in the classroom. To achieve such digitalisation, teachers need to improve their digital pedagogical competencies (Lindqvist & Pettersson, 2019).

In an effort to effectively improve the digital pedagogical competence of pre-service Arabic teachers as well as to prepare qualified teacher candidates and master technological developments in the digital era, digital pedagogical abilities are needed, including the ability to integrate technology in learning (Amhag et al., 2019). The ability to integrate technology in learning is a fundamental skill that is needed to meet 21st century skills, not only during the COVID-19 pandemic (Efwinda & Mannan, 2021). The acceleration of globalisation and development of ICT in the 21st century brings various challenges and opportunities at the same time, so educators should be prepared to cope with future education, one of which is by preparing students who are able to master 21st century skills, namely information and communication technology; to cultivate these skills in students, teachers, and prospective teachers should also have these skills.

Research questions

This research is intended to elaborate on the accelerated digitalisation of learning for pre-service Arabic teachers and student teachers during the COVID-19 pandemic. This study aims to answer the following research questions:

1. How is the acceleration of digitalisation of learning in the post-Covid-19 era?
2. How is the improvement of the pedagogical competence of pre-service Arabic teachers in the post-Covid-19 era?

Methodology

Research design

This research uses qualitative research methods with descriptive-analytical methods. The data in this study were the acceleration of digitalisation of learning in microteaching class and the pedagogical abilities for pre-service Arabic teachers at the Faculty of Tarbiyah and Teacher Training, Sunan Ampel State Islamic University Surabaya, as the impact of the acceleration of digitalisation of learning during the COVID-19 pandemic.

Sample and data collection

The sample in this study were 27 students and two lecturers of microteaching courses in the sixth semester of Arabic language teacher candidates at the Faculty of Tarbiyah and Teacher Training, Sunan Ampel State Islamic University of Surabaya, Indonesia. The data collection techniques used were: 1) systematic observation; 2) interview; and documentation.

Systematic observation that allows the researchers to obtain data about the acceleration of digitalisation of learning in the microteaching class process during the COVID-19 pandemic and how the pedagogical abilities of pre-service Arabic teachers include what learning media are used in online microteaching and how the online microteaching model is implemented using observation and assessment sheets for lesson plans and learning practice videos. This study used participant observation, where the researcher is involved in the daily activities of the people being observed (Lofland et al., 2022). The researcher conducted observations while teaching in the microteaching class. Observations were made according to the microteaching course schedule, so that observations were carried out each microteaching lecture meeting systematically.

The interview that focused on the lecturers who were in charge of the microteaching courses consists of two lecturers and students of the microteaching course in the sixth semester of Arabic language study, as the teacher candidates consist of 27 students. This interview was used to explore data on the phenomenon of accelerated digitisation of microteaching activities for pre-service Arabic teachers. Lecturer interviews were conducted in the form of focus group discussions with several questions, including: (a) What are the online microteaching models used? (b) What media are used in microteaching lectures? (c) Does the learning design in the lesson plans of pre-service Arabic teachers already integrate TPACK? (d) Is the teaching practice of pre-service Arabic teachers in accordance with the lesson plans made? Meanwhile, interviews with pre-service Arabic teachers were conducted using Google Form Media, which included 4 questions, namely: (a) Was the learning model in this microteaching course interesting? (b) Have you integrated TPACK into the lesson plans you made? (c) Was the microteaching learning model easy to apply? (d) Have you carried out teaching practices in accordance with the lesson plans you have made?. The results of the interviews were analysed for relevance to the research questions.

Documentation was carried out by document analysis of students' assignment portfolios consisting of lesson plans, learning practice videos, and the results of lesson plan assessment and teaching practice assessment. The results of this assessment were used to collect data on the pedagogical abilities of the student teachers during the microteaching practice. The assessment of lesson plans and learning practice videos includes several criteria. The lesson plan assessment criteria include: 1) design learning

materials based on TPACK that are relevant to Basic Competencies and Competency Achievement Indicators; 2) determine learning models and design based on TPACK learning strategies in accordance with learning objectives; 3) design interactive learning media by utilising multi-mode ICT relevant to learning materials; and 4) use resources taken from the Internet or online varied sources, relevant, and up-to-date to enrich teaching materials. While the learning practice videos assessment criteria include: 1) implementing learning approaches, models, and methods that integrate TPACK; 2) utilising ICT-based interactive learning media; and 3) generating and employing discussion, quiz, or ice-breaking forums by using online platforms (Ristek, 2022a). The assessment of lesson plans and learning videos used a Likert scale with four alternative answers, namely: Score 4 corresponds to 'very good'. Score 3 corresponds to 'good'. Score 2 corresponds to 'less good', and Score 4 corresponds to 'very less good'. This assessment is based on assessment instruments and rubrics for learning implementation plans in field experience practices of teacher education programs by the Ministry of Education and Culture, Research, and Technology of Indonesia (Ristek, 2022a; 2022b).

Data analysis

The data were analysed using a qualitative descriptive method. Data about the pedagogical abilities of Pre-service Arabic teachers were in the form of Systematic observation, scoring results of the lesson plans, and learning practice videos. The criteria for scoring the lesson plans and learning practice videos include:

Table 1. The criteria for scoring of the lesson plans (Ristek, 2022b).

Pedagogic abilities	Criteria	Scoring
Design learning materials based on TPACK that are relevant to basic competencies and competency achievement indicators.	Learning materials incorporate both digital and printed sources, aligned with competencies and indicators.	Very good
	Learning materials use primarily printed sources aligned with competencies and indicators.	Good
	Learning materials use only printed sources, aligned with competencies and indicators.	Less good
	Learning materials are TPACK-based but not aligned with competencies and indicators.	Very less good
Determine learning models and designs based on TPACK learning strategies.	Learning models are TPACK-based, align with objectives, and are relevant to daily life.	Very good
	Models align with objectives and are TPACK-based, but not fully relevant to daily life.	Good
	Models are TPACK-based but do not align with objectives or daily life relevance.	Less good
	Models are not based on TPACK strategies.	Very less good
Design interactive learning media by utilising multi-mode ICT.	Interactive media effectively utilises multi-mode ICT and is highly relevant to learning materials.	Very good
	Interactive media utilises ICT and is relevant to learning materials.	Good
	Interactive media utilises ICT but may not be fully relevant to learning materials.	Less good
Use resources taken from the internet/online varied sources.	Interactive media does not utilise ICT.	Very less good
	Online resources are diverse, relevant to teaching materials, and up-to-date.	Very good
	Online resources are relevant and up-to-date.	Good
	Online resources are not fully relevant to teaching materials.	Less good
	Online resources are not used at all.	Very less good

Visualization of Table 1.

Criteria	Scoring			
	Very Good	Good	Less Good	Very Less Good
Materials sources, which aligned with competencies and indicators.	Digital and printed	Primarily printed sources	Only printed sources	Not aligned
The relevance learning models are TPACK-based and align to daily life.	Relevant	Not fully relevant	Not relevant	Not based on TPACK
Relevancies effective interactive media multi-mode ICT to learning materials.	Highly relevant	Relevant	Not be fully relevant	Not utilise ICT
Resources taken from the internet/online varied sources	Diverse, relevant, up-to-date	Relevant, up-to-date	Not fully relevant	Not used

Table 2. The criteria for scoring of learning practice (Ristek, 2022a).

Pedagogic abilities	Criteria	Scoring
Skilful implementation of learning approaches, models, and methods that integrate TPACK	The teacher expertly uses learning models, approaches, and methods that integrate TPACK.	Very good
	The teacher effectively uses learning models, approaches, and methods that integrate TPACK.	Good
	The teacher has some difficulty using learning models, approaches, and methods that integrate TPACK.	Less good
	The teacher does not use learning models, approaches, and methods that integrate TPACK.	Very less good
Utilisation of ICT-based interactive media	The teacher expertly uses ICT-based interactive media relevant to learning objectives.	Very good
	The teacher effectively uses ICT-based interactive media relevant to learning objectives.	Good
	The teacher has some difficulty using ICT-based interactive media relevant to learning objectives.	Less good
	The teacher does not use ICT-based interactive media relevant to learning objectives.	Very less good
Creation and use of online discussion, quiz, or ice-breaking forum	The teacher expertly creates and uses discussion, quiz, or ice-breaking forums through interactive online platforms.	Very good
	The teacher effectively creates and uses discussion, quiz, or ice-breaking forums through interactive online platforms.	Good
	The teacher has some difficulty creating and using discussion, quiz, or ice-breaking forums through interactive online platforms.	Less good
	The teacher does not create or use discussion, quiz, or ice-breaking forum through interactive online platforms.	Very less good

Visualisation of Table 2.

Criteria	Scoring			
	Very Good	Good	Less Good	Very Less Good
Skilful implementation of TPACK-based approaches	expert	Capable	Less capable	Unable
Skills to utilise ICT-based interactive media	expert	Capable	Less capable	Unable
Skills to create and use online discussion forums	expert	Capable	Less capable	Unable

To achieve the validity of the data in this study, the author triangulates by comparing data from observations, interviews, and document analysis. Data about the acceleration of digitalisation of learning through observations and interviews and the documentation was analysed simultaneously using the qualitative data analysis technique of the interactive model proposed by Miles, Huberman, and Saldana (Miles et al., 2014).

Results

Online microteaching course and pedagogical competence of pre-service Arabic teachers

Based on the results of systematic observations, the microteaching learning model applied at the Faculty of Tarbiyah and Teacher Training, Sunan Ampel State Islamic University, is a fully online microteaching model. The implementation of online learning at the university refers to the government policies during the COVID-19 pandemic at Islamic universities in Indonesia. In response to the government policies, the Rector of the Sunan Ampel State Islamic University of Surabaya issued a policy concerning the sterilisation of the campus environment as the Actions to Prevent the Spread of Infection with Coronavirus Disease 2019 (Covid-19) at the campus.

At the beginning of the implementation of online learning due to social measures, the principals of the university urged the lecturers to keep providing lecture materials in accordance with the lesson plan that had been made so that the learning outcomes of the courses could be achieved. The media that can be used include learning management system (LMS) platforms, such as Google Classroom, Google Meet, Zoom online conferencing, Schoology, Edmodo, Email, WhatsApp, relevant social media, or other online media. The implementation of the online classes at Sunan Ampel State Islamic University campus initially was employed according to the character of the lecturers and their ability to utilise online learning platforms, adapting to students' conditions, including the microteaching course of the Arabic language study, so that the learning model and learning media used varied as well. At the beginning of the second semester of 2020/2021 in early August 2020, the university has determined the online

learning platforms that should be used for the online learning in all study programs were LMS, Google Classroom, and Google Meet. The determination of this learning medium was followed by the formation of the New Normal Order Team at the university; the team launched a guidebook focussing on how to operate LMS Google Classroom for lecturers and students. Furthermore, socialisation activities and training on the use of the LMS Google Classroom and Google Meet were carried out for lecturers and students with the intention to prepare the lecturers and students for effective online learning.

Based on the guidelines for the online microteaching model at the Arabic Language Education Study Program, Faculty of Tarbiyah and Teacher Training, Sunan Ampel State Islamic University of Surabaya, to train the pedagogic competence of pre-service teachers, each student is required to perform teaching practice at least three times with the following teaching modes, such as the synchronous teaching method that the teaching practice should be directly conducted through virtual platforms, e.g. Google Meet, Zoom cloud meetings, Webex, and other online conferencing platforms. The second method is asynchronous teaching, in which students are required to perform teaching practice by utilising the digital platform of learning management systems (LMS) such as Google Classroom and instant messengers like WhatsApp, Telegram, Line, and other applications that are presented in a teaching practice video uploaded to LMS Google Classroom (1 time). The last is the in-person learning model, in which it is expected there would be interacting with students and through self-taught videos at each other's home, then uploaded to Google Classroom (1 time). These activities should be carried out simultaneously, followed by reflection activities. In one meeting, the activities consist of microteaching for 60% and reflection for 40% of the total time allocated in one meeting. For in-person teaching practice, the preservice teachers were required to involve at least two participants as students, and the teaching activities were recorded.

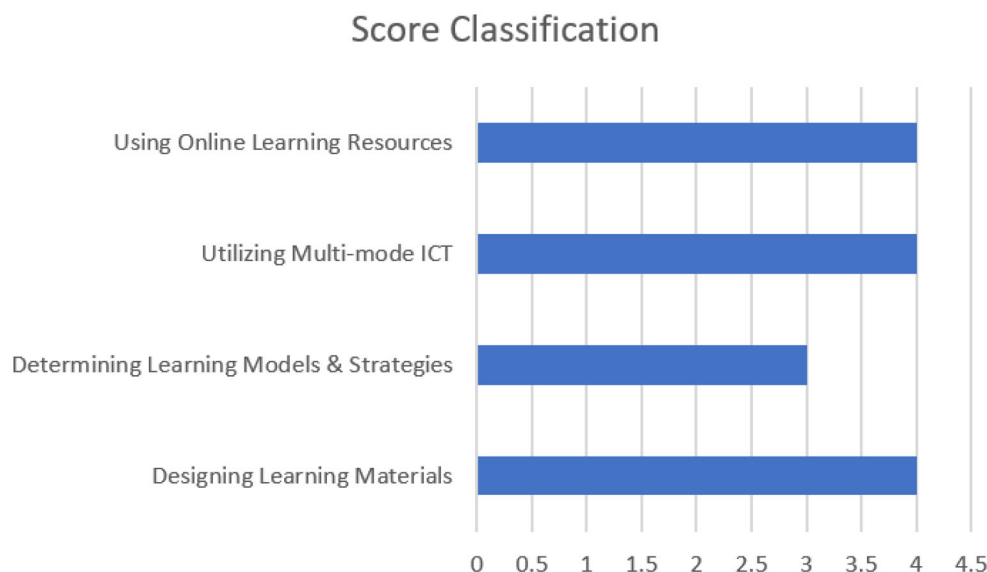
During the online microteaching courses, pre-service Arabic teachers are trained to master pedagogical skills, namely how to prepare lesson plans and carry out the learning activities according to lesson plans. The activities include compiling lesson plans and carrying out the learning, which starts from observing the Arabic teachers' lesson plan documents and videos of learning practice. The student teachers are required to analyse the lesson plans and learning practice videos that have been given by the Arabic language microteaching lecturer by using the instruments. Based on the results of the observations and interviews with the lecturers of the microteaching courses, there are some indicators in the lesson plan assessment instrument used to assess the pedagogical abilities of pre-service Arabic teachers related to digitalisation of learning, namely: (a) designing learning materials in accordance with Basic Competencies and Indicators of Competency Achievement based on TPACK; (b) determining learning models and strategies that adapt the TPACK approach; (c) utilising ICT with multi-mode to design learning media; and (d) utilising learning resources through the Internet and online sources. The indicators in the instrument to assess the implementation of learning practice by pre-service Arabic teachers include (a) applying approaches, models, and methods that integrate TPACK; (b) utilising ICT-based learning media; and (c) creating and employing discussion, quiz, orice-breaking forums via online platforms.

Based on data analysis, pedagogical abilities through lesson plans Pre-service Arabic teachers in the post-Covid-19 era are as follows:

Table 3. Results of the assessment of pedagogical abilities through lesson plan.

No	Pedagogic ability	Criteria	Description	Score classification			
				Very good (4)	Good (3)	Less good (2)	Very less good (1)
1	Designing learning materials	Aligns with basic competencies and competency achievement indicators based on TPACK.	<ul style="list-style-type: none"> Design materials based on TPACK. Relevance to basic competencies and indicators. 	X	X		
2	Determining learning models and strategies	Adapts the TPACK approach to meet learning objectives.	<ul style="list-style-type: none"> Models and strategies align with learning objectives. Designed based on TPACK. 		X	X	
3	Utilising multi-mode ICT	Designs interactive learning media using multi-mode ICT relevant to learning materials.	<ul style="list-style-type: none"> Uses multiple ICT modes. Interactive, relevant to material. 	X	X		
4	Using online learning resources	Incorporates diverse and up-to-date resources from the Internet.	<ul style="list-style-type: none"> Sources are diverse. from current and relevant online materials. 	X			

Visualisation of Table 3.



No	Pedagogic ability	Score classification
1	Designing Learning Materials	4
2	Determining Learning Models and Strategies	3
3	Utilising multi-mode ICT	4
4	Using Online Learning Resources	4

In addition, the results of the data analysis on the pedagogical abilities through teaching practice of pre-service Arabic teachers are displayed in Table 4.

Table 4. Results of the assessment of pedagogical abilities through teaching practice.

No	Pedagogic abilities	Criteria	Description of score classification
1	Implementing a learning approach, model, and method that integrate TPACK.	Pre-service Arabic teachers apply approaches, models, and methods integrating TPACK to make learning fun.	Very good <ul style="list-style-type: none"> Expertly uses learning models, approaches, and methods that integrate TPACK. Learning is made fun and engaging.
2	Utilizing ICT-based learning media.	Pre-service Arabic teachers utilise ICT-based interactive media that are relevant to learning objectives.	Very good <ul style="list-style-type: none"> Expertly uses ICT-based interactive media. Media is relevant and effective.
3	Creating and using discussion, quiz, or ice-breaking forum by using an online platform.	Pre-service Arabic teachers creates and uses discussion, quiz, or ice-breaking forums through interactive online platforms.	Very good <ul style="list-style-type: none"> Expertly creates and uses discussion, quiz, or ice-breaking forum through interactive online platforms. Engaging activities through digital tools

From the data above, it can be seen that the pedagogical competence of pre-service Arabic teachers through the assessment of lesson plans and teaching practices is categorised as very good or exceptional.

Discussion

Acceleration of the digitalisation of learning in an online microteaching course to improve the pedagogical competence of pre-service Arabic teachers

The spread of COVID-19 has triggered and pushed the education institutions to the digitalisation of academic activities (Srivastava, 2021). One form of the accelerated digitalisation of learning at the microteaching course at the Arabic language study was that there was a drastic adaptation of the Arabic language teacher candidates to the implementation of online learning. Lecturers should be able to design new approaches in online lectures by utilising various kinds of online learning media (Kanchai, 2021; Tria, 2020). Basically, the key to the effectiveness of the online learning process is how a creative

lecturer presents discussion material online in a fun and easy-to-understand way so that the students would not feel bored and stay productive when studying from home (Ariyanti & Maryanti, 2022). The challenges faced by the students were mainly how they needed to train themselves to manage time to attend lectures and do assignments from the lecturers at the beginning of the time and practice how to study independently. For this reason, the application of online learning requires readiness from both parties, both from the lecturers as a service provider or from the student side (Niemi & Kousa, 2020). Lecturers should be enthusiastic about learning the digital world in order to continue to interact with students according to professional standards (Ayu, 2020). Lecturers and students feel how online learning changes their behaviour in the learning process. Lecturers and students who have the ability to adapt will easily understand and undergo the online learning process well (Aguilera-Hermida, 2020).

Online microteaching conducted by Sunan Ampel State Islamic University is in accordance with the efforts made by institutions around the world in preparing for the post-pandemic era, which would be commonly referred to as the 'new normal' (Adipat, 2021). Online microteaching class is a challenge for both lecturers and students (Roza, 2021). There might be positive challenges of the online learning for the microteaching class of the Arabic language study at Sunan Ampel State Islamic University are to train the pedagogical competence of the students as pre-service teachers to utilise technology for learning activities, namely presentations, managing assignments and materials through the learning management system (LMS), implementing learning evaluations and tests with online quizzes or online platforms, and so forth. In addition, the students are trained how to present planned and effective learning scenarios within time constraints by designing good and quality lesson plans and integrating technology, pedagogical, and content in TPACK learning. For this reason, TPACK is important to be mastered by the teachers and the students (as pre-service teachers) so that learning activities may run effectively and efficiently (Azizah et al., 2021; Beyranvand & Mohamadi Zenouzagh, 2021). It can be said that online microteaching classes during the COVID-19 pandemic have an impact on accelerating the digitalisation of learning. In the context of the digitalisation of learning, lecturers and students are encouraged to take advantage of shifted modes of learning from conventional to digital, which means optimising both online and in-person learning modes. This is different from the conditions of the microteaching course before the COVID-19 pandemic, where pre-service Arabic teachers students only used simple media such as whiteboards and PowerPoint slides in teaching practice, and video recordings of learning practices are only stored on compact discs and placed in the department cupboard. At the same time, it can also be said that the activities during online microteaching are able to improve the pedagogical competence (compiling lesson plans, implementing learning, and evaluating learning) of student teachers as pre-service Arabic teachers, including competence in preparing effective lesson plans, teaching practices by integrating TPACK in learning, and conducting learning evaluations using online platforms. Based on data analysis, the pedagogical competence of pre-service Arabic teachers is very good.

The quality of teaching practice of the student teachers of the Arabic Language Education Study Program, Faculty of Tarbiyah and Teacher Training, Sunan Ampel State Islamic University of Surabaya, can be observed from the ability to prepare lesson plans and implement learning activities (teaching practices). During the asynchronous teaching practice, student teachers were required to finish the tasks in the form of a video microteaching course video submitted to LMS Google Classroom. Based on the analysis of the results of the observations and interviews with lecturers of the microteaching course, it was understood that the videos of the learning practice from the student teachers have shown creativity and innovation in designing online learning in the form of digital learning products. Based on the video recordings of their learning practices, student teachers have utilised several online applications, especially selecting quality video editing applications in terms of sound, image, lighting, and articulation. When editing the video, they also added text to the opening, whilst, and closing activities, such as introduction and label and video cover. After editing the videos, the student teachers uploaded the video on the YouTube channel, so that it would be/easier for the students to share the video to LMS Google Classroom and so that they are easily accessible and well-stored. Relevant to the asynchronous teaching models, the learning process can be carried out even when lecturers and students are not connected directly (self-paced) to give comments on learning practice videos of the students that have been posted on the LMS (Simanihuruk et al., 2019).

Furthermore, for the synchronous teaching practice, pre-service Arabic teachers are creative and selective in choosing applications that are suitable and easily accessible by their peers during teaching practice. In this synchronous teaching practice, they chose Google Meet as the teaching medium in

order to reduce costs because it is cheaper than other online conferencing applications. As it is known, it was originally paid only but eventually offered free to use as a result of the challenges of COVID-19 (Oloyede et al., 2022). In addition, the Google Meet platform is already connected directly to the LMS Google Classroom, which has been chosen as the LMS by Sunan Ampel State Islamic University of Surabaya during the pandemic and post-pandemic.

In the synchronous teaching practice, student teachers have designed interesting and varied online learning media, either in the form of PPT audio, films, or pictures or other media that are in accordance with the material and learning objectives as stated in the lesson plan, namely Arabic Language at the Madrasah Tsanawiyah (junior secondary school grades VII, VIII, and IX) and Madrasah Aliyah (senior secondary school grades X, XI, and XII) levels, which include maharah al-Istima' wa al-Kalam and maharah al-Qira'ah wa al-Kitabah in accordance with Decree of Minister of Religion Affairs Number 183 of 2019 (Kementerian Agama Republik Indonesia, 2019). The synchronous teaching practice was carried out online in real-time sessions so that students were able to interact with other students acting as student teachers and students (participants) during the teaching practice (Simanihুরু et al., 2019).

The implementation of the in-person learning is intended to train interactive skills of the student teachers with the participants (face-to-face interaction), including skills in monitoring students' learning progress during the learning process, providing appropriate responses and feedback to the students, facilitating students in groups and individual contexts, and concluding subject matter by involving the students, so that they have stronger interpersonal and community skills. In addition, the practice is also to practice student-student skills, because face-to-face learning is proven to increase students' in-depth interaction and student engagement in learning compared to online learning (Shu & Gu, 2018). So that by implementing in-person teaching practice as one of the learning methods in the microteaching courses, it is expected that the students meet the objectives like social competence and teacher personality. As stated by Flower et al. and Deocampo, achieving the objectives of the microteaching course is the most important component of the teacher preparation program (Deocampo, 2020; Flower et al., 2017).

Conclusion

Online learning during the COVID-19 pandemic and in the post-COVID-19 era has succeeded in accommodating pre-service Arabic teachers at the Arabic Language Education Study Program, Faculty of Tarbiyah and Teacher Training, Sunan Ampel State Islamic University of Surabaya, to be more creative, innovative, and modern in carrying out the learning practice. Through trial and error in practicing online learning media, such as trials in using different learning management systems and online platforms, it was found that various combinations of approaches can be applied in learning activities so that the accelerated digitalisation of learning may occur. In other words, the transformation of student teachers to online learning modes in the post-Covid-19 era is believed to accelerate the digitalisation of learning activities and at the same time improve the pedagogical competencies of pre-service Arabic language teachers, including competence in preparing good and quality lesson plans and teaching practices by integrating technology, pedagogy, and content (TPACK) in learning, as well as conduct learning evaluations using online platforms such as Quizizz, Kahoot, and Google Form. Some examples of the accelerated digitalisation of learning among the prospective teachers are, namely, the utilisation of the TPACK framework in microteaching practice as evidence of the creation of their digital pedagogic competence and conducting learning in the form of digital videos uploaded on YouTube channels for easier access. The results of this study are open for suggestions and further research due to the limitations, both methodologically and on-site implementation. In addition, this study only observed the teaching practice activities of pre-service teachers of the Arabic Education program, in which the students were also working with their own peers, which might be different from the teaching practice with real students at schools that is more challenging in realising the digitalisation of learning.

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