

International Journal of Learning, Teaching and Educational Research
 Vol. 24, No. 8, pp. 248-271, August 2025
<https://doi.org/10.26803/ijlter.24.8.11>
 Received May 22, 2025; Revised Jul 20, 2025; Accepted Jul 24, 2025

Integrating Character Values and EdTech Media: A Study of Arabic Teachers' Pedagogical Competence in Bandung Raya

Yayan Nurbayan 

Universitas Pendidikan Indonesia, Indonesia

Anwar Sanusi* 

Universitas Jambi, Indonesia

Abstract. This study examines Arabic teachers' pedagogical competence in integrating character values and utilizing educational technology (EdTech) media across the three stages of Arabic language instruction: initial, core and closing learning activities. A mixed-methods approach with a single-case study design was employed. The research involved 50 Arabic teachers (AT) from Madrasah Aliyah across the Bandung Raya region. Data were collected through questionnaires, in-depth interviews and classroom observations. Quantitative data were analyzed descriptively, while qualitative data were examined using Miles and Huberman's interactive model, which involves data reduction, data display and conclusion drawing. The findings reveal that in initial learning activities, 60% of ATs consistently strengthen students' religious values through greetings and group prayers and promote integrity by involving punctual students in leading prayers. However, other values, such as nationalism and deeper forms of integrity, remain underemphasized and EdTech media are rarely utilized due to limited access and inadequate digital literacy. In core learning activities, character values such as cooperation and respect are frequently integrated, yet 82% of ATs never use digital platforms like Google Classroom for online discussions, indicating a gap in EdTech media implementation. In closing learning activities, 90% of ATs routinely incorporate religious elements through prayers and reflections, but 60% have never used EdTech tools such as Kahoot, Quizizz or Wordwall for assessment. These findings underscore the need for professional development programs that enhance teachers' capacity to integrate character education with digital innovation. The study also highlights the importance of institutional support in fostering pedagogical transformation aligned with the demands of 21st-century learning.

*Corresponding author: Anwar Sanusi; anwarsanusi@unja.ac.id

Keywords: Arabic Teacher; Character Building; Character Values; EdTech; Pedagogic.

1. Introduction

The 21st century is characterized by increasing digitalization and the widespread adoption of modern technology in various aspects of life, including education (Butt et al., 2020; Rinekso, 2021; Taufik, 2020). Modern technology has been widely used in elementary schools and universities in Indonesia. This technological development supports teachers and students in facilitating a more effective learning process in the current learning environment (Haleem et al., 2022; Munna & Kalam, 2021).

The integration of technology in education, known as educational technology (EdTech), has opened up new opportunities to enhance the teaching experience of teachers. This situation requires teachers to improve their teaching competencies continually, encompassing mastery of teaching materials, pedagogical skills, and technological literacy (Afriliandhi et al., 2022; M. Amin et al., 2022; Ihsanudin et al., 2019; Sauri, Saepulloh., et al., 2021; Shah et al., 2020).

Furthermore, the aspect of student character development was added as a complement to the 21st-century educational framework, aligning with the demands of education in Indonesia (Chotimah et al., 2022). In Arabic language learning, character development encompasses efforts to help students develop religious values, nationalism, independence, cooperation and integrity. Therefore, current Arabic language learning must integrate EdTech media and character values as the primary foundation for developing students who are mentally prepared, capable of knowledge-based work and possess good morals.

However, several Islamic Senior High Schools in Bandung Raya revealed that many ATs still focus on traditional learning methods that are heavily oriented toward grammar and memorization. The integration of character values is often incidental and unstructured, while the use of EdTech media is minimal or not aligned with Arabic language learning objectives (Nurbayan et al., 2024; Sakti et al., 2024). As a result, students' moral development is not optimally supported, and their engagement with Arabic remains low.

Teachers also face challenges in translating character-based curriculum objectives into effective learning practices due to a lack of pedagogical competence in managing EdTech media and internalizing character values in learning. This reality highlights a gap between policy expectations and classroom practice, particularly at the senior high school level. This gap underscores the need to enhance teachers' pedagogical skills in integrating character values and EdTech media into Arabic language instruction.

Despite the crucial importance of character development, the Indonesian education system still emphasizes academic aspects, while character education is often neglected (Sauri & Sanusi, 2024). As a result, there has been an increase in cases of juvenile delinquency, violence and drug and other addictive substance

abuse among students (Muassomah et al., 2020; Sauri et al., 2022). This problem is not unique to Indonesia but has also become a concern in developed countries such as Japan, China, Korea and Singapore, which are experiencing a moral crisis and a decline in appropriate public behavior (Chae, 2021; Kim et al., 2020; Mulyadi, 2020; Tang & Wang, 2021). Therefore, character building through the learning process in schools is a strategic solution that must be implemented.

Numerous studies have demonstrated that the learning process plays a significant role in shaping students' character. Zhang and Hu (2020) found that the pictographic character method in Mandarin teaching in Thailand effectively strengthens children's character. In Malaysia, Davis and Boudreaux (2019) demonstrated that dynamically applied character education based on universal and cultural values can strengthen inter-ethnic harmony. In Indonesia, a multicultural learning approach based on religion and religious school culture has been shown to instill religious character in students through strong social practices and spiritual symbols.

Specifically, in Arabic language learning, the most common approaches used are role models and habituation. Mustika et al. (2020) state that teacher role models have a significant influence on the formation of student character. Sanusi and Albantani (2020) emphasize the value of polite language, while Sauri et al., (2021) highlight the importance of digital literacy in supporting character development. However, these efforts are still limited to elementary and junior high school levels. The success of character education is highly dependent on teachers' pedagogical competence in implementing a character-based curriculum effectively, as teachers are key actors in direct interaction with students in the classroom (Briones et al., 2022; Sanusi et al., 2022).

This study aims to fill a gap in previous research by examining the pedagogical competence of ATs in integrating character values and EdTech media in the classroom, specifically at Islamic Senior High Schools in the Bandung Raya region, Indonesia. While previous studies have examined character education separately from the use of EdTech media, few have explored the interconnection between these two components in the context of Arabic language learning. ATs can create a more holistic and impactful learning environment by combining the two.

Therefore, the focus of this study is the pedagogical competence of ATs in integrating EdTech media and character values in learning. Based on this description, the researcher formulated the following research questions:

- a) How does Arabic teachers' pedagogical competence integrate character values and EdTech in the initial learning activities?
- b) How does teachers' pedagogical competence integrate character values and EdTech in the core learning activities?
- c) How do teachers' pedagogical competence integrate character values and EdTech in the closing learning activities?

The findings of this study are expected to provide a practical framework for enhancing the pedagogical competence of AT, thereby improving student character outcomes effectively.

2. Literature Review

2.1 Teacher Pedagogical Competence

Teacher quality is widely recognized as a critical determinant of student academic achievement (Vagi et al., 2019). Beyond facilitating content mastery, teachers play a crucial role in shaping students' moral and social development (Zheng, 2022). Teaching, as a professional endeavor, involves not only transmitting knowledge but also educating and training students to become morally upright and skillful individuals (Susiani et al., 2022). These roles require a high level of pedagogical competence and a professional attitude, given their significant impact on learning effectiveness and student outcomes (Ye & Law, 2019).

In the context of 21st-century education, pedagogical competence encompasses the ability to design and deliver learning experiences that are innovative, flexible, and responsive to learner needs (Menggo et al., 2022; Siregar, 2020). A key dimension of this competence is digital literacy, which refers to the capacity to effectively integrate information and communication technology into instruction (Afriliandhi et al., 2022). At the same time, character education remains a vital element of pedagogy, requiring teachers to model positive values, foster ethical dialogue, and embed moral reasoning within classroom activities (A. Amin et al., 2021; Islahiyah et al., 2023; Thooyibah et al., 2019). In foreign language learning, especially Arabic language education, which is closely tied to Islamic ethical values, teachers are expected not only to teach linguistic skills but also to inculcate character traits such as honesty, discipline and cooperation through language use and content.

Several studies have examined the integration of character values in education and the application of EdTech in language learning environment (Nur et al., 2021; Tang et al., 2024; Thooyibah et al., 2019; Tran et al., 2023). Others have explored the use of digital media to support language development and student engagement in Arabic classes (Dewey et al., 2013). However, these studies often treat character education and educational technology as separate domains. There is still limited empirical research focusing on how both are simultaneously integrated within Arabic language learning, particularly through the lens of teachers' pedagogical competence.

This study addresses that gap by exploring how ATs integrate character values and EdTech media within their instructional practices. It specifically examines how pedagogical competence enables this integration across different stages of teaching, thereby contributing to a more holistic and value-oriented approach to Arabic language education in the digital age.

2.2 Character Building and EdTech in Arabic Learning

Character building in Indonesia is a continuation of the president's commitment to prioritize and cultivate character education, as emphasized in one of the

Nawacita points through the National Mental Revolution Movement, namely, strengthening national character (Firman & Hidayat, 2020; Mappaenre et al., 2023). This initiative positions character education as a key agenda in national education, aiming to develop students' 21st-century skills through the internalization of character values in every aspect of school learning activities (Saputro & Murdiono, 2020). Character education is thus not limited to moral formation but also serves as a strategic effort to nurture national identity, promote collaboration, and increase competitiveness in facing contemporary global challenges (Dewi & Alam, 2020). The five core character values promoted by the Ministry of Cultural Education (2018) include religious, nationalist, integrity, independent and cooperative values. In detail, the five-character values are listed in the following table.

Table 1. Five-character values in building student character

Character Values	Descriptions
Religious	Religious values in the classroom can be applied through attitudes of tolerance, respect for diversity, avoidance of bullying, honoring teachers and peers, demonstrating gratitude through self-confidence and practicing religious obedience.
Nationalist	Nationalist values can be applied through students' discipline in following school rules and appreciation of language diversity in the classroom.
Integrity	Integrity values can be applied through honesty, commitment to class rules, responsibility, setting a good example, and showing respect to others, including peers, teachers and people with disabilities.
Independent	Independent values can be applied by completing tasks independently, working hard on projects and showing resilience without relying on others.
Cooperation	Cooperative values can be demonstrated through students' teamwork in group tasks, their enthusiasm for class duties, and their willingness to help classmates in need or facing difficulties.

These values are designed to be internalized through daily school interactions and integrated into subject curricula. For instance, religious values are reflected in students' attitudes of tolerance and respect for diversity; nationalist values are promoted through appreciation of local culture and discipline; integrity is emphasized through honesty and responsibility; independence is cultivated through task ownership and resilience; and cooperation is nurtured through collaborative group work.

In the context of foreign language education, particularly Arabic, integrating character values becomes a unique pedagogical challenge. Foreign language classes provide rich opportunities to explore ethical, intercultural and social dimensions, aligning with character education goals (Sukarno & Riyadini, 2024). Moreover, the use of EdTech media has been widely adopted in Arabic language learning to facilitate interactive, accessible, and engaging experiences (A. Rani et al., 2023).

However, while both character education and EdTech have shown positive impacts independently, their integration within Arabic language teaching remains underexplored. Previous studies mainly focused on the technical implementation of EdTech (e.g., apps, gamification, digital platforms) or the theoretical aspects of character education as a separate entity (Lampropoulos et al., 2022; Sikora et al., 2024). Only limited research has examined how EdTech can be intentionally used as a medium to embed character values within Arabic language instruction.

Thus, this study aims to fill the gap by examining how ATs in Bandung Raya incorporate character values into their pedagogical practices using EdTech media. Understanding this integration is crucial for developing holistic, values-based language education that is both technologically relevant and ethically grounded.

3. Research Methodology

3.1 Design

This study employs a mixed-methods design, combining both qualitative and quantitative approaches to provide a comprehensive understanding of AT pedagogical competence in integrating character values and EdTech media in classroom instruction. While the core of the study is qualitative, focusing on in-depth exploration of teaching practices, the quantitative component supports and enriches the analysis by providing measurable patterns.

The qualitative strand adopts a single-case study approach, allowing for an in-depth investigation of how ATs applied five core character values – religious, nationalist, integrity, independence and cooperation – in their teaching practices using EdTech media. These values are drawn from Indonesia's national character education framework and are contextualized within classroom experiences. The teaching practices are explored in three instructional phases: introduction, core learning activities and lesson closure.

The quantitative strand complements this by using a Likert-scale questionnaire to measure the frequency of integration of these character values and EdTech media in Arabic language teaching. The descriptive statistical analysis provides an overview of patterns and prevalence across the sample. The research primarily focuses on qualitative aspects, as illustrated in Figure 1.

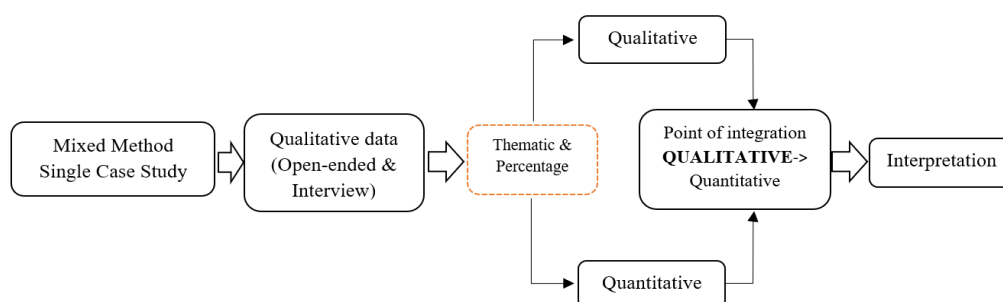


Figure 1. Research Design in a Mixed Method Case Study Design (Source: Author's creation/work)

3.2 Study Area and Participants

This research was conducted in an Islamic Senior High School located in the Bandung Raya region of West Java, Indonesia, encompassing Bandung City, Cimahi City, Bandung Regency and West Bandung Regency. These schools were selected due to the relatively high number of ATs who met academic qualification standards compared to other regions. Participants were selected using purposive sampling, involving 50 ATs who met two main criteria: (1) a minimum academic qualification of Diploma IV or bachelor's degree (S1), and (2) a formal educational background in Arabic language education or a related field.

3.3 Research Instrument

The quantitative instrument used in this study was a structured questionnaire containing 19 items, designed to capture the extent to which ATs integrated character values and EdTech media into their teaching. The questionnaire was organized into three parts: (1) initial teaching activities, (2) core learning activities, and (3) closing learning activities. It used a four-point Likert-scale: 1 = Never (N), 2 = Rarely (R), 3 = Frequently (F), 4 = Very Frequently (VF).

To ensure instrument quality, both validity and reliability testing were conducted. Content validity was established through expert judgment involving three experts in Arabic language pedagogy and educational technology (EdTech). Construct validity was tested using Pearson product-moment correlation, where all items showed *r*-values above 0.30, indicating acceptable item validity. The instrument's reliability was tested using Cronbach's alpha, yielding a coefficient of 0.872, which indicates a high level of internal consistency.

The qualitative instruments included observation sheets, interview protocols and documentation guidelines. Observations and interviews focused on classroom practices, while document analysis included teachers' syllabi, lesson plans and textbooks.

3.4 Data Collection Method

Data collection took place between April–August 2023, using both qualitative and quantitative procedures:

- a) Questionnaires were distributed in printed form to ATs and completed independently by them.
- b) Classroom observations were conducted to capture real-time instructional behaviors related to character values and the integration of EdTech media.
- c) Semi-structured interviews were conducted to gain deeper insights into teachers' strategies and experiences in applying character values and utilizing EdTech media.
- d) Document analysis involved reviewing teaching plans, syllabi and instructional materials.

Each qualitative method was triangulated to validate the depth and consistency of findings.

3.5 Data Analysis

The quantitative data was analyzed using descriptive statistical techniques, including calculation of frequencies and percentages using Microsoft Excel. This method involved tabulating response scores, calculating the percentage distribution for each item, and presenting the results in summary tables to identify patterns of character value integration and EdTech media use. The qualitative data was analyzed using the Miles and Huberman (2018) interactive model, which includes three steps:

- a) Data reduction: selecting, focusing and simplifying relevant data from transcripts, notes, and documents.
- b) Data display: organizing the reduced data into thematic categories aligned with the research questions.
- c) Conclusion drawing and verification: interpreting the meaning of the data, confirming patterns and ensuring consistency.

An open coding technique was used to identify recurring themes and categorize the data. Codes were derived inductively from the raw data and grouped into higher-order categories reflecting how character values and EdTech media are applied in the classroom.

4. Research Results

To understand how ATs integrate character values alongside EdTech media, this section presents the findings categorized by the stages of classroom instruction: initial learning activities, core learning activities and closing learning activities.

4.1 Integration of Character Values and Use of EdTech Media in Initial Learning Activities

The integration of character values in initial learning activities aims to psychologically prepare students, while the use of technology enhances effectiveness and supports student outcomes and digital competence. Based on the questionnaire results, the findings serve as key indicators of ATs' ability to integrate character values and EdTech media in initial learning activities.

Table 2. Frequency of integration of character values and the use of EdTech media in initial learning activities

		Questions	Responses			
			N	R	F	VF
Initial learning activities	Character Values	The teacher gives an opening greeting to the students (religious character values)	0	0	20	30
		The teacher reads a prayer together to start learning Arabic; the prayer reading is led by the student who arrives first (religious character values and integrity values)	0	4	20	26
		The teacher asks the students about their assignments from the previous meeting (independent values and integrity values)	0	10	29	11
		The teacher asks students regarding the Arabic story material they were instructed to read and understand at the previous meeting (integrity value)	12	19	15	4
		The teacher allows students to convey material they have read previously, using polite language, before explaining the material they have read (nationalist character values)	14	20	11	5
	Use of EdTech Media	Teachers use online attendance to check student attendance	42	6	2	0
		The teacher holds an Arabic quiz using an online platform	29	20	1	0

The data in Table 2 shows that ATs had different responses to questions regarding the integration of character values and the use of EdTech media in initial learning activities. Data in the form of integrated character values in initial learning activities consisted of three character values: religious character values, integrity character values and nationalist character values. Meanwhile, the integration of EdTech media in initial learning activities involved utilizing online platforms to conduct Arabic language quizzes.

The 50 ATs who integrated five indicators of character value integration in initial learning activities revealed that the indicators in columns 1 and 2 received high VF category responses. Indicator 1, which is included in the VF category, is 30 ATs with a percentage of 60%, while indicator 2 is 26 ATs with a rate of 52% (see Table 2). This situation demonstrates that religious character values are consistently applied in ATs' initial learning activities. Apart from that, the value of integrity was also emphasized by allowing students who arrived first to lead prayer. This data shows positive practice through the integration of character values in Arabic language teaching.

However, researchers also found that the ATs response to the fourth and fifth column indicators, which contained integrity and nationalist values, had the highest response in the R category. The fourth indicator, included in the R category, was 19 ATs, accounting for 38%, while the fifth indicator was 20 ATs, representing a rate of 52% (see Table 2). This condition indicates that ATs rarely emphasized the character values of integrity and nationalist values. There was a lack of awareness and efforts by ATs to integrate integrity and nationalist character values in initial learning activities; in other words, they focussed too much on the material to be taught, so that in practice their teaching tended to be teacher-centered. The extracts from the interview with ATs are as follows:

AT 7

"In the initial learning activities of teaching Arabic, I focus more on the linguistic material that I teach. Then students are required to practice it continuously, so that they can understand the material easily and practically. Indeed, teaching Arabic tends to become second nature to the language." (Interview on July 2, 2023).

AT 24

"I have never received adequate training on integrating character values into learning activities, so I am not aware of how to effectively incorporate them into Arabic language teaching." (Interview on July 10, 2023).

AT 41

"Most students who study Arabic have no prior experience with the language, which makes it challenging for them to learn. Therefore, this causes me to focus on preparing material that is easy for them to understand when studying." (Interview on July 10, 2023).

Based on the interview results, it appears that the high N-category response in integrating character values through initial learning activities was caused by ATs' focus on linguistic material in teaching. Apart from that, they had also never received adequate training on integrating character values into learning activities, so they were unsure of how to incorporate them into Arabic language teaching.

Furthermore, the data on the integration of EdTech media in initial learning activities consisted of two indicators: the use of online media presence and other online platform media in holding Arabic language quizzes. Of the 50 ATs that integrated these two indicators in initial learning activities, researchers found that all indicators had a high N-category response (see Table 2). The indicator in the first column of the EdTech media usage section had a response of 42 ATs with a percentage of 84%.

Meanwhile, the second indicator had a response rate of 29 AT, corresponding to a 58% response. This situation illustrates that, in the context of teaching Arabic, most ATs rarely utilized EdTech media in initial learning activities. ATs tended not to use EdTech media, such as online attendance software or online platforms for quizzes, as part of initial learning activities. The cause is multifaceted,

including a lack of information and communication technology (ICT) facilities and access to technology, inadequate training in its use, and a general lack of awareness about its benefits.

Statements that are in line with ATs' use of EdTech media can be found in the following interview results:

AT 9

"I can utilize technological media as a learning tool, but when creating online presences, I still require extensive training in the use of technological media and information technology. Therefore, I conducted a classic roll call, which involved calling students' names in sequence."
(Interview on July 15, 2023)

AT 48

"I lack confidence in using ICT media to facilitate learning. In practice, one is often afraid of failure, which can waste time on learning and development. Additionally, ICT-based facilities in schools sometimes fail to support the teaching of Arabic, which leads to a reluctance to utilize." technological media (interview on July 20, 2023)

The interview results showed that ATs' competence in initial learning activities was still lacking. ATs' lack of confidence in using ICT to carry out the learning process is the main factor. Teachers are afraid of failing to teach effectively through the use of ICT, which is currently highly recommended. ATs' lack of self-confidence affects their competence in integrating EdTech media into pedagogical practice, especially in initial learning activities.

4.2 Integration of Character Values and Use of EdTech Media in Core Learning Activities

The integration of character values with the use of EdTech media in core learning activities is part of a progressive step toward forming a generation that is qualified and ready to face future challenges. The core learning activities must be carried out in an interactive, inspiring, fun and challenging manner, motivating students to participate actively and providing sufficient space for effort, creativity and independence, taking into account the students' talents, interests and physical and psychological development.

In the core learning activities, findings are presented in Table 3. These findings are ATs' responses regarding indicators in integrating character values and the use of EdTech media in core learning activities.

Table 3. Frequency of integration of character values and the use of EdTech media in core learning activities

Questions		Responses				
		N	R	F	VF	
Core Activity	Character Values	The teacher links the learning material to character values that exist in everyday life and then instructs the students to explain it again using polite and easy-to-understand language (religious character values). The teacher forms several groups of students to discuss, collect information, represent, and exchange information regarding the material (nationalist values).	0	22	19	9
			0	17	27	6
		The teacher instructs each group of students to listen carefully to the presentations from other groups. When responding, they demonstrate an attitude of respect and appreciation, even though their views on the material presented differ (integrity value).	0	18	30	2
			0	15	28	7
	Use of EdTech Media	Teachers present material in various EdTech media, including Canva, PowerPoint, Prezi, Adobe Animate CC and other online platforms.	0	22	19	9
		Teachers develop digital Arabic language learning resources, such as e-modules or e-learning platforms.	35	2	10	3
		Teachers provide references to learning resources, such as blogs, vlogs and YouTube channels, using platforms to support the implementation of Arabic language learning.	0	28	14	8
		The teacher provides an online discussion forum in each lesson via Google Classroom.	41	3	6	0

Table 3 shows that ATs integrated character values into core learning activities, consisting of five-character values: religious character values, character values, nationalist values, integrity values, independent values and cooperation values. Meanwhile, ATs utilized EdTech media in core learning activities by presenting material in various EdTech platforms, including Canva, PowerPoint, Prezi, Adobe Animate CC and other online media.

The highest number of ATs' responses regarding the integration of character values in core learning activities is found in the third and fourth column indicators in the F and VF categories. The responses in the third column indicated that there were 30 teachers, with a percentage of 60%. Meanwhile, the reaction in the fourth column indicator was 28 teachers with a rate of 56% (see Table 3). The results of ATs' response in the third column indicator (integrity value) show that they often instructed each group of students to listen carefully to the work presented by other groups.

When responding to presentations from different groups, the teacher asked them to show respect and appreciation, even though their views on the material presented differ (the value of integrity). Apart from that, the results of ATs' response in the fourth column indicator (independent value and cooperation value) show that they often instructed students to discuss when they encountered problems in the material. This was supported in the interviews:

AT 26

"Integrating character values into core learning activities cannot be separated from the preparation of lesson plans (LP), where I often modify the learning activities in the LP by developing students' character in both initial learning activities, core learning activities and closing learning activities." (Interview, July 24, 2023)

AT 19

"I often instruct each group of students to listen carefully to the work presented by other groups. They are also frequently asked to solve material problems related to Arabic grammar. Even in Arabic story material presented by different groups, I often complement it by describing the character values contained in it and applying them to everyday life." (Interview on July 26, 2023)

Based on the results from the interviews, ATs gave serious attention to integrating character values in core learning activities. ATs emphasized the importance of preparing an LP as a basis for modifying learning activities to develop student character, including initial learning activities, core learning activities and closing learning activities. Meanwhile, ATs also conveyed their practice in instructing groups of students to solve material problems related to Arabic grammar. Apart from that, they were also asked to listen carefully to the results of the work of other groups.

Even in Arabic story material, ATs actively complemented it by linking the character values contained in it to everyday life. In line with the results of observations, ATs' core learning activities often presented character values found in exemplary stories in Arabica as in the exemplary story explained by ATs about *al-Lisanu* - the need for guarding your mouth (i.e. being careful about what you say). This story contains wisdom and examples that can develop students' religious character.

However, the researchers also found that the first column of indicators, containing religious values, had the highest response in the rare category. The number of

ATs' responses in the first column, indicating a rare category, was 22 teachers, or 44% of the total. This data shows that ATs rarely carried out the first column indicators in core learning activities. In other words, ATs seldom linked teaching materials to the five central character values of everyday life. Moreover, students were asked to rephrase their explanations using language that is polite and easy to understand. Based on the results of interviews that are relevant to this problem, the researchers found the following:

AT 42

"I have difficulty integrating character values as outlined in Arabic learning materials, which is also exacerbated by the students' poor learning conditions and lack of interest. Additionally, I didn't include character values in the LP." (Interview on July 24, 2023)

AT 37

"I feel pressured to complete the material in the 2022 KMA 347 curriculum, given the minimal learning time. This situation forces me to focus solely on linguistic and grammatical aspects, while character values may be considered as something additional or less structured." (Interview on July 27, 2023)

Based on the results of interviews, ATs rarely integrated character values into core learning activities because they struggled to incorporate character values into the learning material. Apart from that, the latest Arabic language curriculum poses a serious obstacle, as the Arabic learning time provided by ATs is minimal. Thus, in integrating character values, ATs faced various obstacles and did not demonstrate any efforts to incorporate character values into core learning activities. This data is confirmed by the results of observations that ATs did not include character values in the LP, so when implementing learning in class, teachers appeared confused and lacked direction in integrating character values into core learning activities.

Furthermore, the highest response regarding the integration of EdTech media in core learning activities is in the fourth column indicator, with the 'never' category at 41%. The percentage in this category indicator reached 82%, where ATs never provided an online discussion forum in any learning via Google Classroom. The learning approach implemented was entirely focused on direct interaction between teachers and students in the classroom. Apart from that, ATs' responses in the 'never' highest category are indicated in the second column, where ATs had never developed digital Arabic language learning resources, such as e-modules or e-learning. The number of responses in the second column indicator, categorized as 'never', was 35 AT, representing a percentage of 70% (see Table 3).

In core learning activities, 35 ATs only used learning resources in the form of Arabic books provided by the Ministry of Religion of the Republic of Indonesia. Thus, ATs lacked the knowledge and skills to develop digital learning resources. Schools often lacked adequate access to and technological facilities for creating digital learning resources. Limited hardware, internet connectivity or technological expertise can be significant obstacles.

4.3 Integration of character values and use of EdTech media in closing learning activities

The integration of character values and the use of EdTech media in closing learning activities is a holistic approach to developing students' knowledge, skills and character. ATs are required to be observant and creative to determine practical learning activities. In extracting data, researchers found varied ATs response results in closing learning activities, especially those related to the integration of character values and the use of EdTech media.

Table 4. Frequency of integration of character values and the use of EdTech media in closing learning activities

	Questions	Responses			
		N	R	F	VF
Closing Activity	Teacher and students reflect on the learning experience (integrity value)	0	3	20	27
	The teacher gives a random and short oral assessment (integrity value)	0	15	23	12
	The teacher closes the lesson with a prayer (religious value)	0	0	5	45
	The teacher evaluates the learning using <i>Kahoot</i> , <i>Quizizz</i> and <i>Wordwall</i>	30	12	8	0

Table 4 shows that ATs can integrate two character values in closing learning activities, such as integrity value and religious value. In addition, the integration of character values in the closing activity in Table 4 shows that the highest number of responses is in the third column indicator, especially in the 'very often' category, with as many as 45 ATs, representing a percentage of 90%. The results of ATs responses in the third column indicator (religious value) show that they very often closed the lesson with prayer. ATs emphasized that:

AT 12

"The school is not only a place to gain knowledge of the world but also provides a balance between worldly knowledge and knowledge of the hereafter. One of the programs I often implement is closing the lesson by reading short verses from the Al-Qur'an together and praying." (Interview on July 27, 2023)

AT 25

"The integration of religious character values in closing learning activities is crucial. I always begin the closing of learning with a prayer. This prayer is not just a routine ritual, but a moment of reflection and expression of gratitude for the opportunity to learn. I also invite students to take a moment to reflect on the religious values they have learned and how they can apply them in their daily lives." (Interview on July 27, 2023)

From both interviews, it can be concluded that ATs emphasized the importance of incorporating the religious dimension into the educational context. ATs conducted prayers together, providing students with the opportunity to reflect on and understand the religious values they were learning.

Furthermore, the use of EdTech media in closing learning activities has one indicator, where the results of ATs responses, specifically in the 'never' category, show a high number of 30 AT. This data shows that 60% of ATs never evaluated learning by using *Kahoot*, *Quizizz* and *Wordwall* (see Table 4). This data aligns with the observation that ATs tended to use classic methods without exploring innovations based on EdTech media in evaluating learning. They only assessed orally and in writing related to the material that has been learned.

5. Discussion

This study found that in the initial learning activities, ATs frequently integrated religious values, such as greetings and communal prayers, which were practiced by approximately 60% of teachers. Approximately 52% also involved students in leading prayers, developing a sense of responsibility and independence. However, the values of nationalism and integrity have not been implemented evenly. This practice reflects the importance of moral routines in character formation, as stated by Siddiqui and Habib (2021), and also highlights the selectivity of the values being taught.

Limited training and a focus on linguistic achievement make ATs less confident in integrating character values into their learning. Many ATs admitted they did not understand how to align character values with language learning, often neglecting the character aspect. However, as Anderson and Rivera-Vargas (2020) emphasized, the character dimension should not be separated from the technical and practical aspects of teaching. This situation highlights the need for contextual and applicable character pedagogy training.

In terms of EdTech media use in initial learning activities, the integration of technology remains low. As many as 84% of teachers have never used online attendance systems, and more than half have never utilized digital quizzes. Key barriers include minimal training, limited infrastructure and low teacher self-efficacy. This situation aligns with the findings of Ariska et al. (2024), who emphasized the importance of technology readiness and teacher mindset in successful EdTech media integration. The analysis revealed a tendency for younger teachers to be more adaptable to the use of technology in learning.

In contrast, more senior teachers exhibited a resistant attitude and continued to rely on conventional approaches. This difference reflects generational dynamics in digital literacy that impact variations in pedagogical practices. Therefore, training designs that are responsive to each teacher's demographic, geographic and technological readiness levels are needed. This contextual needs-based training approach is believed to increase equitable technology adoption more sustainably and effectively in educational settings.

In the core learning activities, character values such as cooperation, responsibility and independence are introduced through group discussions and presentations. This approach aligns with Lickona (1996), who states that value instillation should occur in a real-life and interactive context. However, the integration of character values into Arabic language content is often not systematically designed, and therefore has not become an integral part of teachers' learning design. The use of EdTech media, such as interactive videos has the potential to strengthen the delivery of values in a contextual and multisensory manner.

Tahir and Wang (2024) demonstrate that interactive visual media enhances students' concept retention and affective responses. Consistent with Cholifah and Faelasup (2024), effective character education must be relevant to the students' sociocultural context. Therefore, EdTech can be a strategic tool for connecting values to students' real lives through Islamic narratives and cultural visualizations.

However, curriculum pressures such as those in KMA 347 make it difficult for teachers to integrate values deeply. Religious and nationalistic values often appear symbolically in LP, reflecting the dominance of the cognitive dimension and the lack of affective aspects. Nucci and Narvaez (2008) emphasize that without comprehensive instructional planning, character education will remain a discourse without depth, where EdTech can bridge this gap by presenting value-infused content through relevant digital media. Some teachers have begun utilizing applications such as Canva and Adobe Animate to enrich the presentation of materials, but not many have optimally integrated digital learning platforms.

A lack of understanding of the TPACK framework (Mishra & Koehler, 2006) indicates the still-weak integration between content, pedagogy and technology. This barrier is not only technical but also cognitive and affective. As Ertmer and Ottenbreit-Leftwich (2010) noted, teacher confidence in the effectiveness of technology is a key factor in the adoption of digital innovation. Senior teachers tend to be more resistant than younger teachers, who are more open but still require methodological guidance.

In the closing learning activities, religious practices such as communal prayer still dominate, as reflected by the 90% of teachers who regularly implemented them. While this is important as part of strengthening spiritual development other character dimensions, such as self-reflection, personal responsibility for the learning process and collaborative evaluation, are not maximized (Masuwai et al, 1996).

In fact, the closing phase should be a strategic space for developing students' self-awareness and social responsibility through participatory and meaningful evaluative activities (Loannidou-Koutselini & Patsalidou, 2015; Nilson & Zimmerman, 2023). EdTech media can be a solution for enriching the character evaluation dimension at the end of the learning process. Applications such as Kahoot, Wordwall, or Quizizz not only function as quiz-based formative

assessments but can also be modified to measure affective and value aspects. For example, teachers can design questions that ask students to reflect on cooperative attitudes in groups or choose ethical responses in contextual situations. Recent research by Liu et al. (2025) demonstrates that interactive quizzes designed with a reflective approach can enhance students' emotional engagement and empathy toward learning content.

Furthermore, the implementation of values-based assessments through EdTech media also supports the principles of Universal Design for Learning (UDL), which emphasize the importance of flexibility in the representation, engagement, and expression of learning (Abramenka-Lachheb et al., 2025). With gamification features and an engaging visual design, platforms like Wordwall can cater to a variety of learning styles and student needs, enabling the final assessment to serve not only as a cognitive assessment but also as a medium for internalizing character values. This statement aligns with the findings of Ishak et al. (2025), who confirmed that integrating EdTech into final assessments can significantly increase students' metacognitive awareness and responsibility for learning.

Therefore, the use of EdTech media in the final assessment should not be limited to testing memorization or understanding of the material but should be directed toward building evaluative experiences that address affective aspects of learning. Teachers need to enhance their evaluative literacy and creativity in designing values-based assessments, so that values such as empathy, collaboration and self-reflection can be more fully and contextually integrated into daily learning practices.

The transformation of character-based learning and technology requires teacher training that is not only technical but also conceptual and transformational in nature. Michael Fullan (2004) emphasized that educational change must begin with a shift in mindset and moral commitment. Therefore, teacher training design needs to be directed ATs understanding the function of technology as a means of shaping values and understanding. Without sustainable, adaptive curriculum and institutional support, character integration through EdTech media will remain sporadic and uneven among teachers.

This research suggests that the integration of character values in Arabic language learning remains partial, with religious values predominating in both initial and closing learning activities. In contrast, other values, such as nationalism, integrity, responsibility and self-reflection, have not been systematically addressed. The lack of contextual pedagogical training and the dominant linguistic focus leaves many ATs lacking the confidence to integrate character values into learning, which is further exacerbated by the low utilization of EdTech media due to limited infrastructure, digital literacy and teacher self-confidence.

Technology-based approaches, such as Kahoot, Wordwall and interactive videos, have great potential to enrich value-based learning in a contextual and multisensory manner, aligning with the TPACK framework and the principles of UDL. Therefore, ATs training must be transformational so that education requires

a change in mindset, not just a tool or strategy. Without the support of an adaptive curriculum, applicable training and supportive institutions, the integration of character values in Arabic language learning through EdTech media will remain symbolic and uneven, so strong synergy is needed so that Arabic language education can become a means of building a complete and meaningful character.

6. Conclusion

Based on the findings and data analysis, several conclusions can be drawn. First, in the preliminary activities, ATs consistently promote religious values through greetings and joint prayers. Integrity is also fostered by allowing punctual students to lead the prayers, reinforcing both moral and academic responsibility.

However, the values of integrity and nationalism are rarely emphasized, as shown in indicators 4 and 5, due to limited teacher awareness and insufficient efforts to integrate them. The use of EdTech media in this phase remains minimal, primarily hindered by restricted access and low digital literacy. Second, in the core teaching activities, character values such as cooperation and integrity are frequently integrated. Teachers encourage students to listen respectfully to peer presentations and collaborate through group discussions.

Despite this, the integration of EdTech and the development of digital learning resources received the lowest response, indicating a lack of innovation and autonomy in utilizing technology for pedagogical purposes. Third, in the closing activities, ATs continue to emphasize religious values, creating a spiritual learning atmosphere. However, EdTech integration at this stage is also limited, even though the incorporation of digital tools could enhance creativity, Arabic language proficiency and critical thinking skills.

Therefore, to meet the demands of 21st-century education, it is essential to implement curative strategies, such as targeted training, seminars and workshops, focused on character education and EdTech media integration. Future research is recommended to explore the integration of character values and EdTech outside the classroom setting, along with more concrete strategies to strengthen teachers' pedagogical competence.

7. References

- Ariska, M., Anwar, Y., Widodo, A., Sari, D. K., Yusliani, N., Rahmannisa, A., Az Zahra, L., Milka, I. A., & Al Fatih, Z. (2024). Education for sustainable development based of technological pedagogical and content knowledge using mixed-methods approach in physics teaching. *Jurnal Penelitian & Pengembangan Pendidikan Fisika*, 10(2), 421–434.
<https://doi.org/10.21009/1.10217>
- Abramenka-Lachheb, V., Lachheb, A., & Ozogul, G. (2025). Value-sensitive design in the praxis of instructional design: A view of designers in situ. *British Journal of Educational Technology*, 56(4), 1311–1349.
<https://doi.org/10.1111/bjet.13574>
- Afriliandhi, C., Hidayati, D., Istiqomah, I., & Melawati, A. (2022). Teacher's digital literacy to improve quality in learning. *IJECA (International Journal of Education and Curriculum Application)*, 5(1), 17–24.
<https://doi.org/10.31764/ijeca.v5i1.7327>

- Amin, A., Alimni, A., Kurniawan, D. A., Septi, S. E., & Azzahra, M. Z. (2021). The study of differences and influences of teacher communication and discipline characters of students. *Jurnal Ilmiah Sekolah Dasar*, 5(4), 622–630. <https://doi.org/10.23887/jisd.v5i4.39546>
- Amin, M., Sibuea, A. M., & Mustaqim, B. (2022). The effectiveness of online learning using e-learning during pandemic Covid-19. *Journal of Education Technology*, 6(2), 247–257. <https://doi.org/10.23887/jet.v6i2.44125>
- Anderson, T., & Rivera-Vargas, P. (2020). A critical look at educational technology from a distance education perspective. *Digital Education Review*, 37, 208–229. <https://doi.org/10.1344/der.2020.37.208-229>
- Briones, S. K. F., Dagamac, R. J. R., David, J. D., & Landerio, C. A. B. (2022). Factors affecting the students' scholastic performance: A survey study. *Indonesian Journal of Educational Research and Technology*, 2(2), 97–102. <https://doi.org/10.17509/ijert.v2i2.41394>
- Butt, R., Siddiqui, H., Soomro, R. A., & Asad, M. A. (2020). Integration of industrial revolution 4.0 and Iots in academia: A state-of-the-art review on the concept of education 4.0 in Pakistan. *Int. Technol. S. Educ*, 2(2), 337–354. <https://doi.org/10.1108/ITSE-02-2020-0022>
- Chae, Y. (2021). The creativity and character in Korea teacher education. *Contemporary Educational Research Journal*, 11(1), 01–08. <https://doi.org/10.18844/cej.v11i1.4728>
- Cholifah, S., & Faelasup. (2024). Educational environment in the implementation of character education. *Journal of Scientific Research, Education, and Technology (JSRET)*, 3(2), 816–825. <https://doi.org/10.58526/jsret.v3i2.418>
- Chotimah, U., Yanzi, H., Kurnisar, K., Faisal, E. El, Yusuf, M., & Susanti, E. (2022). Strengthening students' character through TPACK-based learning. *Jurnal Civics: Media Kajian Kewarganegaraan*, 19(2), 235–244. <https://doi.org/10.21831/jc.v19i2.45430>
- Davis, F., & Boudreaux, M. K. (2019). Charter school principals' leadership of instruction practices. *Journal of Educational Research and Practice*, 9(1), 89–103. <https://doi.org/10.5590/JERAP.2019.09.1.07>
- Dewey, D. P., Belnap, R. K., & Hillstrom, R. (2013). Social network development, language use, and language acquisition during study abroad: Arabic language learners' perspectives. *Frontiers: The Interdisciplinary Journal of Study Abroad*, 22(1), 84–110. <https://doi.org/10.36366/frontiers.v22i1.320>
- Dewi, E. R., & Alam, A. A. (2020). Transformation model for character education of students. *Cypriot Journal of Educational Sciences*, 15(5), 1228–1237. <https://doi.org/10.18844/cjes.v15i5.5155>
- Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2010). Teacher technology change. *Journal of Research on Technology in Education*, 42(3), 255–284. <https://doi.org/10.1080/15391523.2010.10782551>
- Firman, A. J., & Hidayat, N. (2020). strengthening character education based on golden habits At SMP Muhammadiyah 1 Depok Yogyakarta. *Cendekia: Jurnal Kependidikan Dan Kemasyarakatan*, 18(2), 189–210. <https://doi.org/10.21154/cendekia.v18i2.1886>
- Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable Operations and Computers*, 3, 275–285. <https://doi.org/10.1016/j.susoc.2022.05.004>
- Ihsanudin, Muh., Oktama, M. Y., Nasucha, Y., Rahmawati, L. E., Aulia, M. F., Afianto, D., & Setiawaty, R. (2019). Pedagogical content knowledge (PCK) ability of Indonesian language teacher candidates. *International Journal of Learning, Teaching and Educational Research*, 18(10), 248–262. <https://doi.org/10.26803/ijlter.18.10.16>

- Ishak, M., Oderinde, I., & Ahmad, S. (2025). The role of metacognitive strategies in enhancing learning outcomes and educational efficiency: A systematic review of quantitative, qualitative and mixed-method studies. *International Journal of Academic Research in Business and Social Sciences*, 15(4), 81–101. <https://doi.org/10.6007/IJARBS/v15-i4/24964>
- Islahiyah, I., Mariatun, I. L., & Sholeh, Y. (2023). Teacher efforts to instill character values in learning. *Edunesia: Jurnal Ilmiah Pendidikan*, 4(3), 1488–1500. <https://doi.org/10.51276/edu.v4i3.558>
- Kim, H. K., Ahn, J., Atkinson, L., & Kahlor, L. A. (2020). Effects of COVID-19 misinformation on information seeking, avoidance, and processing: A multicountry comparative study. *Science Communication*, 42(5), 586–615. <https://doi.org/10.1177/1075547020959670>
- Lampropoulos, G., Keramopoulos, E., Diamantaras, K., & Evangelidis, G. (2022). Augmented reality and gamification in education: A systematic literature review of research, applications, and empirical studies. *Applied Sciences*, 12(13), 6809. <https://doi.org/10.3390/app12136809>
- Lickona, T. (1996). Eleven principles of effective character education. *Journal of Moral Education*, 25(1), 93–100. <https://doi.org/10.1080/0305724960250110>
- Liu, Y.-L. E., Lee, T.-P., & Huang, Y.-M. (2025). Enhancing student engagement and higher-order thinking in human-centred design projects: the impact of generative AI-enhanced collaborative whiteboards. *Interactive Learning Environments*, 1–18. <https://doi.org/10.1080/10494820.2025.2496973>
- Loannidou-Koutselini, M., & Patalidou, F. (2015). Engaging school teachers and school principals in an action research in-service development as a means of pedagogical self-awareness. *Educational Action Research*, 23(2), 124–139. <https://doi.org/10.1080/09650792.2014.960531>
- Mappaenre, A., Hasanah, A., Samsul Arifin, B., Nuraini, Y., & Satria Wiwaha, R. (2023). The implementation of character education in madrasah. *Attadrib: Jurnal Pendidikan Guru Madrasah Ibtidaiyah*, 5(2), 166–181. <https://doi.org/10.54069/attadrib.v5i2.302>
- Masuwai, A., Zulkifli, H., & Hamzah, M. I. (2024). Self-assessment for continuous professional development: The perspective of Islamic education. *Heliyon*, 10(19), 1–17. <https://doi.org/10.1016/j.heliyon.2024.e38268>
- Menggo, S., Ndiung, S., & Midun, H. (2022). Integrating 21st-century skills in English material development: What do college students really need? *Englisia: Journal of Language, Education, and Humanities*, 9(2), 165–186. <https://doi.org/10.22373/ej.v9i2.10889>
- Michael Fullan. (2004). *Leading in a culture of change. Personal action guide and workbook*. Jossey-Bass.
- Ministry of Cultural Education. (2018). *Practical guide to implementing class-based strengthening character education*. Center for Policy Analysis and Synchronization.
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record: The Voice of Scholarship in Education*, 108(6), 1017–1054. <https://doi.org/10.1111/j.1467-9620.2006.00684.x>
- Muassomah, M., Abdullah, I., Istiadah, I., Mujahidin, A., Masnawi, N., & Sohrah, S. (2020). Believe in literature: character education for Indonesia's youth. *Universal Journal of Educational Research*, 8(6), 2223–2231. <https://doi.org/10.13189/ujer.2020.080605>
- Mulyadi, B. (2020). Early childhood character education in Japan. *E3S Web of Conferences*, 202, 1–7. <https://doi.org/10.1051/e3sconf/202020207063>

- Munna, A. S., & Kalam, M. A. (2021). Teaching and learning process to enhance teaching effectiveness: A literature review. *International Journal of Humanities and Innovation (IJHI)*, 4(1), 1-4. <https://doi.org/10.33750/ijhi.v4i1.102>
- Mustika, S. I., Rahardjo, K., & Prasetya, A. (2020). The effect of perceived organizational support and psychological capital on job satisfaction and knowledge sharing. *BISNIS & BIROKRASI : Jurnal Ilmu Administrasi Dan Organisasi*, 27(1), 25-33. <https://doi.org/10.20476/jbb.v27i1.11761>
- Nilson, L. B., & Zimmerman, B. J. (2023). *Creating self-regulated learners*. Routledge. <https://doi.org/10.4324/9781003443803>
- Nucci, L., & Narvaez, D. (2008). *Handbook of moral and character education*. Routledge.
- Nur, R., Suardi, S., Nursalam, N., & Kanji, H. (2021). The integration model of the development of student religious character education based on integrative morals in higher education. *JED (Jurnal Etika Demokrasi)*, 6(1), 149-162. <https://doi.org/10.26618/jed.v6i1.4692>
- Nurbayan, Y., Sanusi, A., Wulan, N. S., & Bin Ismail, Z. (2024). Pedagogical competence design: Arabic teaching as a foreign language based on a praxeological approach. *ALSUNIYAT: Jurnal Penelitian Bahasa, Sastra, dan Budaya Arab*, 7(2), 266-290. <https://doi.org/10.17509/alsuniyat.v7i2.73132>
- Rani, S. A., Zikriati, Z., Muhammadiyah, A., Syukran, S., & Ali, B. (2023). Arabic language learning based on technology (Opportunities and challenges in the digital era). *International Journal of Education, Language, and Social Science*, 1(1), 1-11.
- Rinekso, A. B. (2021). The representation of 21st century skills in an Indonesian EFL textbook. *LLT Journal: A Journal on Language and Language Teaching*, 21(1), 191-211. <https://doi.org/10.24071/llt.v24i1.2655>
- Sakti, S. A., Endraswara, S., & Rohman, A. (2024). Integrating local cultural values into early childhood education to promote character building. *International Journal of Learning, Teaching and Educational Research*, 23(7), 84-101. <https://doi.org/10.26803/ijlter.23.7.5>
- Sanusi, A., Ainin, Moh., Muassomah, M., Maulana, D., & Maimunah, I. (2022). Exploring planning for teaching Arabic as a foreign language At senior high school: Teacher's didactical competencies. *Arabiyatuna : Jurnal Bahasa Arab*, 6(2), 439-464. <https://doi.org/10.29240/jba.v6i2.5166>
- Sanusi, A., & Albantani, A. M. (2020). Teaching Arabic language base on character building through Qur'an perspective. *Ijaz Arabi Journal of Arabic Learning*, 4(1), 44-58. <https://doi.org/10.18860/ijazarabi.v4i1.9951>
- Saputro, J. D., & Murdiono, M. (2020). Implementation of character education through a holistic approach to senior high school students. *International Journal of Multicultural and Multireligious Understanding*, 7(11), 460-470. <http://dx.doi.org/10.18415/ijmmu.v7i11.2146>
- Sauri, S., Saepulloh., & Sanusi, A. (2021). *Guru Profesional Abad-21*. Mustika Ilmu.
- Sauri, S., & Sanusi, A. (2024). Assessing of pedagogical competency of prospective teachers in teaching Arabic in schools: Suitable or not suitable? *Journal of Ecohumanism*, 3(7), 2509-2518. <https://doi.org/10.62754/joe.v3i7.4653>
- Sauri, S., Sanusi, A., Saleh, N., & Khalid, S. M. (2022). Strengthening student character through internalization of religious values in school. *Al-Iltizam: Jurnal Pendidikan Agama Islam*, 7(2), 30-43. <https://doi.org/10.33477/alt.v7i2.3369>
- Sauri, S., Sanusi, A., Saleh, N., & Nursyamsiah, N. (2021, November). Strengthening digital literacy-based character building in arabic teaching and learning. In *Fifth International Conference on Language, Literature,*

- Culture, and Education (ICOLLITE 2021)* (pp. 625-631). Atlantis Press.
<https://doi.org/10.2991/assehr.k.211119.097>
- Shah, A. M., Yan, X., Shah, S. A. A., & Ali, M. (2020). Customers' perceived value and dining choice through mobile apps in Indonesia. *Asia Pacific Journal of Marketing and Logistics*, 33(1), 1-28. <https://doi.org/10.1108/APJML-03-2019-0167>
- Siddiqui, R., & Habib, Z. (2021). Moral Education At Primary Level in Selected Private Schools of Karachi: Role of Teachers and Parents. *Pakistan Journal of Humanities and Social Sciences*, 9(2), 59-73.
<https://doi.org/10.52131/pjhss.2021.0901.0113>
- Sikora, Y., Chernykh, V., Shaforost, Y., Danylyuk, S., & Chemerys, I. (2024). Leveraging gamification and game-based technologies for educational purposes. *Multidisciplinary Reviews*, 7, 1-9.
<https://doi.org/10.31893/multirev.2024spe008>
- Siregar, R. A. (2020). The effective 21st-century pedagogical competence as perceived by pre-service english teachers. *Pedagogy: Journal of English Language Teaching*, 8(1), 1-13.
<https://doi.org/10.32332/pedagogy.v8i1.1953>
- Sukarno, S., & Riyadini, M. V. (2024). Enhancing learners' character development: insights from utilizing learning materials and teaching-learning activities in TEFLIN. *Journal of Languages and Language Teaching*, 12(3), 1100-1118.
<https://doi.org/10.33394/jollt.v12i3.11191>
- Susiani, K., Suastra, I. W., & Arnyana, I. B. P. (2022). Study of improving the quality of learning in an effort to improve the quality of elementary school education. *Jurnal EDUCATIO: Jurnal Pendidikan Indonesia*, 8(1), 37-44.
<https://doi.org/10.29210/1202221786>
- Tahir, R., & Wang, A. I. (2024). Evaluating the effectiveness of game-based learning for teaching refugee children Arabic using the integrated LEAGUE-GQM approach. *Behaviour & Information Technology*, 43(1), 110-138.
<https://doi.org/10.1080/0144929X.2022.2156386>
- Tang, M., Ren, P., & Zhao, Z. (2024). Bridging the gap: The role of educational technology in promoting educational equity. *The Educational Review, USA*, 8(8), 1077-1086. <https://doi.org/10.26855/er.2024.08.012>
- Tang, H., & Wang, Y. (2021). Moral education curriculum reform for China's elementary and middle schools in the twenty-first century: Past progress and future prospects. *ECNU Review of Education*, 4(4), 727-742.
<https://doi.org/10.1177/2096531120923416>
- Taufik, M. (2020). Strategic role of Islamic religious education in strengthening character education in the era of industrial revolution 4.0. *Jurnal Ilmiah Islam Futura*, 20(1), 86-106. <https://doi.org/10.22373/jiif.v20i1.5797>
- Thoyyibah, N., Hartono, R., & Anggani L. Bharati, D. (2019). The Implementation of character education in the English teaching learning Using 2013 curriculum. *English Education Journal*, 9(2), 254-266.
<https://doi.org/10.15294/eej.v9i2.30058>
- Tran, T. Q., Duong, T. M., & Nguyen, D. T. H. (2023). The use of edtech apps in English language learning: EFL learners' perspectives. *Theory and Practice in Language Studies*, 13(5), 1115-1123. <https://doi.org/10.17507/tpls.1305.04>
- Vagi, R., Pivovarov, M., & Barnard, W. (2019). Dynamics of preservice teacher quality. *Teaching and Teacher Education*, 85, 13-23.
<https://doi.org/10.1016/j.tate.2019.06.005>
- Ye, W., & Law, W.-W. (2019). Pre-service teachers' perceptions of teacher morality in China. *Teaching and Teacher Education*, 86, 1-13.
<https://doi.org/10.1016/j.tate.2019.102876>

- Zhang, L., & Hu, Y. (2020). An experimental study on pictographic character teaching for primary school pupils in Thailand. *Advances in Applied Sociology*, 10(12), 483–497. <https://doi.org/10.4236/aasoci.2020.1012028>
- Zheng, F. (2022). Fostering students' well-being: The mediating role of teacher interpersonal behavior and student-teacher relationships. *Frontiers in Psychology*, 12, 1–8. <https://doi.org/10.3389/fpsyg.2021.796728>