



Deep Learning-Based Arabic Language Learning Reconstruction Model in Developing 21st Century Competencies

Ferdana Sidiq

Institut Agama Islam Darul Fattah Lampung, Indonesia

e-mail: ferdanasidiq09@gmail.com

Abstract

*This study aims to reconstruct a deep learning-based Arabic language learning model to develop students 21st-century competencies. The study is motivated by the prevailing practice of Arabic language instruction, which remains oriented toward the mastery of grammatical rules, vocabulary memorization, and text translation, and therefore has not optimally developed critical thinking, creativity, communication, collaboration, digital literacy, and character. This study employed a qualitative approach using a library research method. Data were obtained from books, scholarly journal articles, and policy documents and analyzed through content analysis involving data reduction, categorization, interpretation, and conceptual synthesis. The findings resulted in the reconstruction of a learning model that integrates the four Arabic language skills *istimā'*, *kalām*, *qirā'ah*, and *kitābah* with 21st-century competencies through the stages of learning orientation, problem exploration, collaboration, reflection, creation, and authentic assessment. This model promotes contextual, participatory, reflective, and student-centered learning. The novelty of this study lies in integrating the deep learning approach, the 21st-century competency framework, and the characteristics of Arabic language learning into a holistic instructional design that is adaptive to digital technological developments and contemporary educational needs.*

Keywords: deep learning, Arabic language learning, 21st century learning reconstruction, student-centered learning.

Abstrak

*Penelitian ini bertujuan merekonstruksi model pembelajaran bahasa Arab berbasis deep learning untuk mengembangkan kompetensi abad ke-21 peserta didik. Penelitian dilatarbelakangi oleh pembelajaran bahasa Arab yang masih berorientasi pada penguasaan kaidah, hafalan kosakata, dan penerjemahan, sehingga belum optimal mengembangkan kemampuan berpikir kritis, kreativitas, komunikasi, kolaborasi, literasi digital, dan karakter. Penelitian menggunakan pendekatan kualitatif dengan metode studi pustaka (library research). Data bersumber dari buku, artikel jurnal ilmiah, dan dokumen kebijakan yang dianalisis melalui content analysis dengan tahapan reduksi, kategorisasi, interpretasi, dan sintesis konseptual. Hasil penelitian menghasilkan rekonstruksi model pembelajaran yang mengintegrasikan keterampilan *istimā'*, *kalām*, *qirā'ah*, dan *kitābah* dengan kompetensi abad ke-21 melalui tahapan orientasi, eksplorasi masalah, kolaborasi, refleksi, kreasi, dan evaluasi autentik. Model ini mendorong pembelajaran yang kontekstual, partisipatif, reflektif, dan berpusat pada peserta didik. Kebaruan penelitian terletak pada integrasi pendekatan deep learning, kompetensi abad ke-21, dan karakteristik pembelajaran bahasa Arab dalam satu desain pembelajaran holistik yang adaptif terhadap perkembangan teknologi digital dan kebutuhan pendidikan kontemporer.*

Kata kunci: deep learning, pembelajaran bahasa Arab, rekonstruksi pembelajaran abad 21.

Introduction

Global developments in the 21st century have changed the orientation of education from a mere knowledge transfer process to a process of developing the competencies of students who are able to think critically, creatively, communicatively, and collaboratively. These changes are influenced by the development of science, digital technology, globalization, and the increasingly complex needs of the world of work. Education no longer only emphasizes mastery of materials, but also prepares students to be able to adapt to change, solve various problems innovatively, and have a strong character in community life. Therefore, education systems in various countries have begun to direct learning on the development of 21st century competencies known as the 4C concept (critical thinking, creativity, communication, and Collaboration) (Andrean 2025). In line with that, UNESCO (2021) emphasized that educational transformation must be able to create a more meaningful, humanistic, adaptive, and student-centered learning process in order to be able to respond to the challenges of the global society that continues to grow.

This transformation has also influenced the learning paradigm in various disciplines, including Arabic language education. As one of the core subjects in madrassas and Islamic religious universities, learning Arabic does not only aim to develop language competence (*Linguistic competence*), but also to form the ability to think, communicate, and comprehensively understand the treasures of Islamic scholarship (Rosyadi and Fata 2025). However, the reality in the field shows that Arabic language learning is still dominated by a structural approach oriented towards mastering the rules of nahwu, sharaf, memorization of mufradat, and text translation. This approach causes students to tend to be passive and have not gained learning experiences that are able to develop high-level thinking skills (*Higher order thinking skills*) and 21st century skills (Richards 2022).

The current paradigm shift in education demands learning that is able to provide an immersive learning experience (*Deep Learning*). From a pedagogical perspective, *Deep Learning* It is not interpreted as artificial intelligence, but as a learning approach that emphasizes conceptual understanding, meaningful learning, reflection, collaboration, real problem solving, and the ability to transfer knowledge to various life contexts.

Students no longer just memorize information, but build their own knowledge through authentic learning experiences (Widagdo 2025). According to Fullan, Quinn et al. (2018), deep learning aims to develop six global competencies (6C), i.e. the character (*Character*), Citizenship (*Citizenship*), collaboration (*Collaboration*), communication (*Communication*), creativity (*creativity*), and critical thinking (*Critical Thinking*), which is an important foundation in dealing with the changing world in the 21st century.

Implementation of the approach *Deep Learning* in Arabic language learning becomes increasingly relevant when associated with the development of digital technology and changes in the characteristics of today's generation of students (Faiz and Afrita 2024). Students are no longer sufficiently equipped with the ability to read books or understand the structure of language alone, but are also required to be able to use Arabic as a medium for thinking, discussing, solving problems, collaborating, and producing innovative academic works (Maziyah et al. 2026). Thus, Arabic learning must shift from textual learning to contextual, reflective, collaborative, and problem-solving learning. Organisation for Economic Co-operation and Development (2023). explains that the digital education ecosystem demands a learning model that is able to integrate technology, high-level thinking competencies, and authentic learning in order to produce graduates who are ready to face future challenges.

However, various studies on learning Arabic have focused more on the effectiveness of learning methods, the use of digital media, the development of teaching materials, and the improvement of one of the language skills (*maharah al-istimā'*, *al-kalām*, *al-qirā'ah*, or *al-kitābah*). Research that integrates *deep learning* approaches as a conceptual framework in reconstructing the entire Arabic language learning system is still relatively limited. In fact, this approach has great potential in linking the mastery of language competence with the development of 21st century competencies. This condition shows a research gap, namely the lack of an Arabic language learning model that systematically integrates *deep learning* principles to develop students' critical thinking, creativity, communication, and collaboration competencies.

Based on these conditions, a reconstruction of Arabic language learning is needed that not only emphasizes mastery of linguistic aspects, but also develops reflective thinking skills, problem-solving, collaboration, communication, creativity, and digital literacy of students. The reconstruction needs to be based on *deep learning* principles through problem-based learning, collaborative learning, reflection, contextual learning, and authentic assessments so that it can produce a more meaningful learning process.

Such a learning model is expected to make Arabic not only an object of learning, but also an instrument to build students' global competencies that are in line with the demands of 21st century education.

Therefore, research on "Deep Learning-Based Arabic Language Learning Reconstruction Model in Developing 21st Century Competencies" is important to be conducted. This research is expected to be able to produce a conceptual model of Arabic language learning that is more innovative, adaptive, and relevant to the development of contemporary education. In addition to contributing to the development of Arabic language learning theory, the results of this research are also expected to be practical recommendations for teachers, lecturers, curriculum developers, and policy makers in realizing Arabic language learning that is able to produce graduates who are competent, characterful, and ready to face global challenges.

Metode Penelitian

This study employed a qualitative approach using library research (Hamzah, 2020) to reconstruct a deep learning-based Arabic language learning model through the synthesis of relevant theories, empirical research findings, and educational policies. The data sources consisted of primary and secondary data. Primary data included books and key documents on deep learning, 21st-century competencies, Arabic language learning, and digital education, while secondary data comprised reputable national and international journal articles, conference proceedings, educational institution reports, and relevant policy documents.

Data were collected through documentation by searching, identifying, classifying, and organizing relevant literature from academic databases, including Scopus, Web of Science, ERIC, Google Scholar, and SINTA. The literature was selected based on its relevance, source credibility, publication recency, and contribution to the research focus. Data were analyzed using content analysis through four stages: data reduction, conceptual categorization, comparative interpretation of interconceptual relationships, and conceptual synthesis to reconstruct a deep learning-based Arabic language learning model. Data trustworthiness was ensured through source triangulation by comparing theories, empirical research findings, and policy documents from credible institutions. In addition, each reference was critically evaluated based on authorial authority, publication quality, consistency of findings, and relevance to the

research focus, thereby ensuring the academic validity of the resulting conceptual synthesis.

Results and Discussion

The Concept of Deep Learning in the Transformation of Arabic Language Learning

The development of education in the 21st century has brought fundamental changes to the learning paradigm in various disciplines, including learning Arabic. The shift is marked by a change in orientation from teacher-centered learning (*teacher-centered learning*) towards learner-centered learning (*student-centered learning*) (Rahman and Kumalasari 2020). In this new paradigm, learners are no longer positioned as passive recipients of information, but as individuals who actively build knowledge through the process of critical thinking, reflection, collaboration, and problem-solving. These changes gave birth to the concept *Deep Learning* as a learning approach that emphasizes conceptual understanding, interconnectedness, and the ability to apply knowledge in various real-life contexts (Fullan et al. 2018).

Terms *Deep Learning* in the field of education has a different meaning from *Deep Learning* in artificial intelligence (*Artificial Intelligence*). In the context of education, *Deep Learning* refers to the learning process that allows learners to gain a deep understanding through active involvement in the process of higher thinking (Fitriani and Santiani 2025). Students not only memorize facts or rules, but are also able to connect concepts, conduct critical analysis, evaluate information, and generate new ideas based on the learning experiences obtained. Thus, the success of learning is not only measured by the amount of material mastered, but also by the ability of students to use this knowledge to solve real problems.

This concept is in line with the view of Fadel, Bialik, and Trilling (2015) who stated that 21st century education must develop four main dimensions of competence, namely *Knowledge*, *Skills*, *Character*, and *Meta-learning*. Knowledge (*Knowledge*) is no longer understood as a collection of information that must be memorized, but as a foundation for building thinking skills. Skill dimension (*Skills*) includes critical thinking, creativity, communication, and collaboration skills. Character dimensions (*Character*) deals with responsibility, integrity, leadership, and social concern, while *Meta-learning* refers to the ability of students to understand the way they learn so that they are able to become lifelong learners. These four dimensions are the main foundation in implementation *Deep Learning* because it places students as the main actors in the learning process (Andreas 2025).

In the perspective of educational psychology, *Deep Learning* is a form of meaningful learning (*Meaningful learning*). Students connect new knowledge with the knowledge structure that they have previously had so that a more comprehensive understanding is formed. In contrast, learning that is only oriented towards memorization tends to result in superficial understanding (*Surface Learning*), so that the information obtained is easy to forget and difficult to apply to new situations. Therefore, *Deep Learning* Encourage a learning process that emphasizes exploration, reasoning, reflection, and contextual application of concepts. Differences between *Deep Learning* and *Surface Learning* is one of the important aspects in the transformation of modern education. In superficial learning, learners generally learn only to meet the demands of academic evaluation, such as exams or tests. Learning activities are more oriented towards remembering information without understanding the relationships between concepts. Instead, *Deep Learning* Putting conceptual understanding as the main goal. Students are encouraged to ask questions, connect various sources of knowledge, reflect, and build arguments based on available evidence (Feriyanto and Anjariyah 2024). These differences show that the quality of learning is not only determined by the amount of material presented, but also by the quality of the thinking process developed during learning.

The transformation towards *deep learning* has also received attention from UNESCO through the report *Reimagining Our Futures Together: A New Social Contract for Education*. UNESCO emphasizes that the education of the future must form students who are able to think critically, collaborate, adapt to change, and have social and global responsibility. Education is not enough to only transfer knowledge, but must build the capacity of students to face various challenges of an increasingly complex world. Thus, learning must be directed at the development of holistic competencies, including cognitive, affective, social, and moral aspects (UNESCO 2021).

A similar view is put forward by the OECD which affirms that the digital revolution has changed the way humans acquire, process, and use information. The ability to read, understand, and evaluate digital information is a basic competency that must be possessed by 21st century students. Therefore, the learning process must be designed to develop the ability to think critically about information, problem-solving skills, digital literacy, and the ability to work together in a multicultural environment. These competencies are the main characteristics *Deep Learning* that differentiates it from

conventional learning approaches (Organisation for Economic Co-operation and Development 2023).

In the context of Arabic language learning, the implementation of *Deep Learning* becomes increasingly relevant because language learning is not just about mastering the linguistic structure (*qawā'id*), vocabulary (*mufradāt*), as well as reading skills (*qirā'ah*). Learning Arabic must be directed at the ability to use language as a means of communication, thinking, and building cross-cultural understanding. Thus, students are not only able to understand Arabic texts, but also able to interpret meanings, relate the content of the text to social reality, and communicate ideas effectively in various situations (Taufiq et al. 2026).

According to Thu'aimah and Al-Naqah, the purpose of learning Arabic for foreign speakers does not only include the mastery of the four language skills (*Istimā'*, *Kalam*, *qirā'ah*, and *kitābah*), but also the development of thinking skills through the use of language. Language is seen as a means of building knowledge and not just an object of learning. Therefore, the learning process must provide opportunities for students to use Arabic in authentic activities, such as discussions, presentations, problem-solving, collaborative projects, and analysis of various social and religious phenomena. This view is reinforced by Richards who states that modern language learning should be interaction-oriented. Interaction allows students to build meaning through communication with teachers and peers. In the process, learners gain a deeper learning experience as they use language to convey ideas, ask questions, provide arguments, and solve problems together (Richards 2022). Interaction-based learning also increases learning motivation because students feel that the language they learn has a real function in life.

However, the practice of learning Arabic in various educational institutions still faces a number of challenges. Learning is often still oriented towards mastering grammar, memorizing vocabulary, and translating texts mechanically. Learning evaluation also emphasizes memory skills rather than critical thinking, creativity, and problem-solving skills. This condition causes Arabic language learners to be less able to develop the 21st century competencies needed by students to face the dynamics of the global society.

The development of digital technology further strengthens the urgency of applying *deep learning* in Arabic language learning. The OECD explains that the digital education ecosystem demands transformation not only in the use of technology, but also

in learning design. Technology will have a positive impact when used to encourage knowledge exploration, collaboration, reflection, and the creation of works. On the other hand, the use of technology that only replaces conventional learning media will not result in significant changes to the quality of learning.

In this context, teachers have a strategic role as learning facilitators. Teachers are no longer the only source of information, but play the role of designers of learning experiences that are able to encourage students to think deeply. Teachers need to create a learning environment that provides space for students to ask questions, discuss, explore various sources of information, reflect, and produce works based on learning results. The change in the role of teachers is the main characteristic of the implementation *Deep Learning* as stated by Fullan et al. (Fullan et al. 2018).

The transformation of Arabic language learning based on *deep learning* is also related to changes in the evaluation system. It is not enough to do the assessment through a written test that only measures the ability to remember, but must use an authentic assessment. Authentic assessments include projects, portfolios, presentations, case studies, reflections, and learning products that demonstrate students' ability to apply knowledge. Through this evaluation, teachers can get a more comprehensive picture of the development of students' thinking, communication, collaboration, and creativity skills.

Based on these various perspectives, it can be understood that *deep learning* is a learning paradigm that puts the quality of the learning process as the main focus. In learning Arabic, this paradigm allows students not only to master linguistic aspects, but also to develop critical thinking skills, creativity, communication, collaboration, digital literacy, and character needed in 21st century life. Therefore, the transformation of Arabic language learning is not enough to be carried out through curriculum changes or the use of technology alone, but requires a thorough reconstruction of the objectives, learning strategies, role of teachers, student activities, and evaluation systems. Thus, *deep learning* can be a conceptual foundation for the development of Arabic learning models that are more relevant, adaptive, and able to answer educational challenges in the digital era.

21st Century Competencies in Learning Arabic

The rapid social, economic, and technological changes in the 21st century have had consequences for the education system in many countries. Education is no longer only oriented towards mastering factual knowledge, but is also directed to equip

students with a set of competencies that enable them to adapt, think critically, collaborate, and solve various problems in real life (González-Salamanca et al. 2020). This transformation is influenced by the development of digital technology, globalization, the industrial revolution 4.0, and knowledge-based societies (*Knowledge Society*) which demands the birth of human resources who are not only academically intelligent, but also have the ability to learn throughout life (*lifelong learning*). In this context, 21st century competencies are the main foundation in the development of curriculum and learning strategies at various levels of education, including in Arabic language learning (Akour and Alenezi 2022).

The concept of 21st century competence is evolving in response to the changing character of the world of work and the life of a global society. According to Andrean et al. (Andrean 2025) the education of the future must develop four main dimensions known as Four-Dimensional Education, namely *Knowledge*, *Skills*, *Character*, and *Meta-learning*. Dimension of knowledge (*Knowledge*) includes not only mastery of subject matter, but also the ability to understand the interconnectedness between concepts and apply knowledge in different contexts. Skill dimension (*Skills*) includes critical thinking skills (*Critical Thinking*), creativity (*creativity*), communication (*Communication*), and collaboration (*Collaboration*). Character dimensions (*Character*) includes integrity, responsibility, empathy, leadership, and adaptability to change, while the *Meta-learning* emphasizing the ability of students to recognize their own learning process so that they can become independent and sustainable learners (Mahrunnisya 2023).

The framework shows that educational success is no longer only measured by academic achievement or test scores, but also by students' ability to integrate knowledge, skills, character, and learning awareness in daily life. Therefore, the learning process must be designed in such a way that learners gain an authentic, contextual, and problem-solving-oriented learning experience. This approach is closely related to the concept of *deep learning* which places students as active subjects in building knowledge through the process of exploration, reflection, and collaboration.

The urgency of developing competencies in the 21st century was also affirmed by UNESCO through a report *Reimagining Our Futures Together: A New Social Contract for Education*. UNESCO explains that education must be able to form individuals who not only have intellectual ability, but also have social responsibility, global awareness, the ability to cooperate across cultures, and readiness to face unpredictable changes. 21st century education is seen as a process of building human beings who are able to think

reflectively, creatively, and ethically in the face of the complexities of modern life (UNESCO 2021). Therefore, schools and colleges are required to develop learning models that encourage students to learn through real experiences, collaboration, and innovation.

In line with UNESCO, the OECD emphasizes that digital transformation has changed the way students obtain information, communicate, and build knowledge. In the digital age, information is available in huge quantities and can be accessed easily through various technology platforms. However, the abundance of information also presents challenges in the form of the dissemination of inaccurate information, bias, and even disinformation (Organisation for Economic Co-operation and Development 2023). Therefore, students need the ability to think critically to evaluate the credibility of information sources, compare various perspectives, and make decisions based on evidence. These competencies are an integral part of 21st century competencies and cannot be separated from the language learning process.

In the context of Arabic language learning, 21st century competencies have a very strategic position because language not only functions as a means of communication, but also as a means of thinking, understanding culture, building identity, and developing intellectual abilities. Arabic language learning has always been oriented towards mastering grammar (*qawā'id*) and memorizing vocabulary (*mufradāt*), so that students' ability to use language to think critically and solve problems has not developed optimally. In fact, the main goal of language learning is to build *communicative competence*, which is the ability to use language effectively in accordance with social, cultural, and academic contexts (Richards 2022).

According to learning Arabic for non-Arabic speakers should be directed at the development of four main skills, namely *istimā'*, *kalām*, *qirā'ah*, and *kitābah*, which are interrelated and inseparable. These four skills not only aim to enable students to understand the structure of language, but also so that they can use Arabic as a tool for thinking, discussing, delivering arguments, and understanding various social, cultural, and religious phenomena. Thus, 21st century competency-oriented Arabic language learning must be able to integrate mastery of linguistic aspects with the development of *higher order thinking skills*.

The implementation of 21st century competencies in Arabic language learning also demands a paradigm shift in learning from a teacher-centered approach to a student-centered approach. Teachers no longer act as the only source of knowledge, but

rather as facilitators who create a collaborative learning environment and encourage students to actively explore various sources of information (Ridwan Nulloh et al. 2025). In this situation, students get the opportunity to discuss, make presentations, develop projects, solve problems, and reflect on the learning process they are experiencing. These activities not only improve Arabic language mastery, but also develop communication, collaboration, creativity, and critical thinking skills that are at the core of 21st century competencies.

Furthermore, the OECD explains that 21st century students must have literacy skills that go beyond conventional reading and writing activities. Literacy in the digital era includes the ability to understand, analyze, evaluate, and use information responsibly. In learning Arabic, the concept of literacy can be realized through the analysis of Arabic articles, the interpretation of contemporary Islamic texts, the discussion of global issues in Arabic, and the writing of argumentative essays supported by various scientific sources. Through these activities, students not only develop language skills, but also build critical thinking skills and information literacy which are the main needs of society in the 21st century.

Reconstruction of the Arabic Language Learning Model Based on Deep Learning

The transformation of education in the 21st century requires a change in the learning paradigm that is able to answer the challenges of the development of science, technology, and the needs of the global community. These changes are not only related to improving the curriculum, but also reconstructing the paradigms, strategies, and learning models that have been implemented in the classroom. In the context of Arabic language learning, the need for reconstruction is increasingly urgent because learning practices in various educational institutions are still dominated by conventional approaches oriented towards mastering language rules (*qawā'id*), memorizing vocabulary (*mufradāt*), and text translation. The learning model is indeed able to improve students' linguistic skills at a certain level, but it has not fully encouraged the birth of critical thinking skills, creativity, collaboration, communication, and problem-solving that are the demands of 21st century competencies (Richards 2022).

The dominance of traditional approaches means that the Arabic language learning process often takes place in one direction (*teacher-centered learning*). Teachers play the role of the main source of knowledge, while students receive more information passively. Learning activities are generally focused on listening to the teacher's

explanations, memorizing the rules of nahwu and sharaf, doing mechanical exercises, and repeating material to face exams. Learning patterns like this tend to result in *Surface Learning*, i.e. learning that is oriented towards memorization and short-term mastery of information without being accompanied by a deep conceptual understanding (Feriyanto and Anjariyah 2024). As a result, students have difficulty when they have to use Arabic to communicate, analyze a problem, or relate learning material to a real-life context.

In the perspective of modern pedagogy, language learning is no longer seen as a process of transferring a set of linguistic rules, but rather as a process of building communicative competence, thinking skills, and cultural literacy. Richards (2022) emphasizes that language learning should provide opportunities for learners to use language in a variety of authentic situations so that they can build meaning through interaction, negotiation, reflection, and collaboration. Thus, the success of learning Arabic is not enough to measure students' ability to memorize sentence structures or translate texts, but also from their ability to use Arabic to discuss, convey arguments, solve problems, and understand various social and cultural phenomena.

This condition shows that learning Arabic requires a reconstruction of a model that is able to integrate the mastery of linguistic competence with the development of high-level thinking skills (*Higher order thinking skills*). Reconstruction in this context is not interpreted as a total replacement of the existing learning model, but as a process of renewal through a synthesis between modern learning theory, the development of digital technology, the needs of students, and the characteristics of Arabic language learning. The reconstructive approach allows the various advantages of traditional learning methods to be maintained, but enriched with more participatory, reflective, and contextual learning strategies so as to be able to respond to the challenges of 21st century education (Arifin et al. 2021).

The main foundation of the reconstruction is the concept of *deep learning* developed by Fullan, Quinn, and McEachen (2018). They explained that *deep learning* is a learning process that allows students to gain in-depth understanding through active involvement in knowledge exploration, collaboration, reflection, and problem-solving. In contrast to conventional learning that is oriented towards information transfer, *deep learning* places learners as the main subjects who actively build their own knowledge. Teachers function as facilitators who design learning experiences so that learners can relate the concepts learned to real-life situations. This paradigm is very relevant to

learning Arabic because language is essentially learned through meaningful use, not just through memorization of grammatical rules.

The implementation of *deep learning* in Arabic language learning is also in line with the Four-Dimensional Education framework developed by Fadel, Bialik, and Trilling (Palácios and Sousa 2023). According to them, future education must develop four main dimensions, namely *knowledge*, *skills*, *character*, and *meta-learning*. These four dimensions cannot be separated because the success of learning depends on the ability of students to integrate knowledge with thinking skills, positive character, and the ability to manage their own learning process. Therefore, the deep learning-based Arabic learning model not only aims to improve the mastery of the four language skills (*istimā'*, *kalām*, *qirā'ah*, and *kitābah*), but also forms students who are creative, communicative, collaborative, and have critical thinking skills.

In addition, UNESCO (2021) emphasizes that future education must be built on the principles of collaboration, justice, sustainability, and *lifelong learning*. Students need to be prepared to face an ever-changing world through learning experiences that foster curiosity, adaptability, and social responsibility. In learning Arabic, this principle can be realized through learning activities that relate the use of language to actual problems, such as environmental issues, cultural diversity, technological developments, sharia economics, and global communication in the Islamic world. Thus, Arabic is not only studied as a subject, but also as a means of building global insight and cross-disciplinary thinking skills.

Digital transformation is also an important factor that drives the need to reconstruct the Arabic language learning model. According to the OECD (2023), digital technology should not only function as a medium for delivering materials, but should be used to create an interactive, collaborative, and problem-solving-based learning experience. Therefore, Arabic language learning needs to utilize various digital platforms, artificial *intelligence*, *learning management systems*, digital Arabic corpus, and online communication applications as an integral part of the learning process. The use of this technology will expand the opportunities for students to practice using Arabic in authentic situations, get feedback quickly, and build a wider learning network.

Based on these various perspectives, the reconstruction of the Arabic learning model based on *deep learning* is not just a change in teaching methods, but is a comprehensive transformation of the goals, processes, roles of teachers, student activities, learning media, and evaluation systems. This reconstruction aims to create a

learning environment that allows students to develop language competencies as well as 21st century competencies in an integrated manner. Thus, learning Arabic is no longer oriented towards mastering the structure of language alone, but is a process of forming individuals who are able to think critically, communicate effectively, collaborate, innovate, and adapt to global changes. This conceptual foundation is the basis for the preparation of a deep learning-based Arabic language learning reconstruction model that will be explained in the next section.

Conclusion

This research demonstrates that the transformation of Arabic language learning in the digital era requires a reconstruction of learning models that extends beyond the mastery of linguistic aspects to the development of 21st-century competencies. Conventional approaches centered on memorizing grammatical rules, vocabulary, and text translation have not fully accommodated the need for students to think critically, communicate, collaborate, create, and use technology effectively. The literature review shows that deep learning provides a relevant conceptual foundation for developing meaningful, contextual, reflective, collaborative, and student-centered Arabic language learning. Its integration with the four language skills—*istimā'*, *kalām*, *qirā'ah*, and *kitābah*—can facilitate the development of critical thinking, creativity, communication, collaboration, digital literacy, character, and lifelong learning through authentic, problem-based, collaborative, and project-oriented activities. The main implication of this study is that Arabic language teachers and lecturers need to shift their roles from transmitters of linguistic knowledge to facilitators and designers of meaningful learning experiences, while curriculum developers and educational institutions should support learning environments that integrate authentic assessment, digital technology, collaboration, reflection, and problem-solving. Thus, the proposed reconstruction model has the potential to strengthen not only students' Arabic language competence but also their higher-order thinking skills, character, digital literacy, and readiness to face global challenges.

However, this study has limitations because it is conceptual and based solely on library research; therefore, the proposed model has not yet been empirically tested in actual Arabic language learning contexts. The findings should consequently be interpreted as a conceptual framework rather than as evidence of the model's direct effectiveness. Future research is recommended to validate and refine the model through

empirical studies, including research and development (R&D), quasi-experimental research, mixed-methods research, or classroom action research across different educational levels and learner contexts. Such studies should examine the model's effectiveness in improving the four Arabic language skills and 21st-century competencies, while also considering differences in teacher readiness, digital infrastructure, student characteristics, and institutional contexts. Further research may also develop measurable assessment instruments and technology-supported learning designs to evaluate the long-term impact and adaptability of the deep learning-based Arabic language learning reconstruction model.

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