



RESEARCH ARTICLE

## The Effectiveness of Blended Learning in Developing Secondary School Students' Islamic Culture Concepts and Higher-Order Thinking Skills

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**ABSTRACT**

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This study aimed to investigate the effectiveness of blended learning developing Islamic culture concepts and higher-order thinking skills among second-year secondary school students. A quasi-experimental research design (pre-post test design for the experimental and the control group). The sample was (68) students, the experimental group was (36) students, and the control group was (32) students from the "Eighteenth School". The research tools were the Islamic culture concepts test and the higher-order thinking skills test. The results demonstrated the effectiveness of blended learning developing Islamic culture concepts and higher-order thinking skills. This study recommended the necessity of using a blended learning model to develop Islamic culture concepts and enhance higher-order thinking skills among students.

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## INTRODUCTION

Islamic culture serves as the fundamental source of the intellectual, behavioral, practical, and societal characteristics of Arab communities. It provides a clear and comprehensive portrayal of Islam as both a religion and a civilization. It also presents Islam in its comprehensive form, encompassing the economic, political, social, and all other areas of life. Additionally, it illuminates Islamic moral principles and translates them into tangible practical application (Al-Jazi, 2022). The Islamic religion, with its comprehensive legislation, is considered the most important component of this culture, including a set of beliefs, perceptions, legislation, behaviors, customs, knowledge, arts, and language that constitute the personality of the Muslim as well as the identity of the Muslim nation (Al-Jazi, 2022).

Islamic religious education can include aspects of multicultural understanding, such as providing students with the knowledge, skills, and behavior to have a good understanding of all environmental events full of diversity and interaction between individuals and societies, and it goes hand in hand with the teachings of tolerance in a multicultural society (Mokoagow et al., 2024). The

Islamic culture courses provided students with great significance in empowering younger generations and equipping them with in-depth knowledge about their religion. These courses emphasize the strong sense of belonging and loyalty to Islam, which transcends affiliations related to nationalism and ethnicity. For the Muslim, the fundamental loyalty is to God Almighty and His Messenger, as well as the commands and teachings contained within the Holy Quran. Islamic culture courses are intended to instill a comprehensive understanding of Islam in the hearts and minds of Muslim students, recognizing that the Islamic religion is a complete, integrated, and interconnected faith (Metwally et al., 2022).

According to Abdalrhim & Habib (2023); Algumzi (2017), Franceschelli and O'Brien (2014) Ali & Al-Kazemi (2007), Islamic culture is deeply reflected in Muslims' lives and practices, stemming from a clear and accurate understanding of the fundamental truths of Islam. This culture encompasses a diverse range of religious, intellectual, economic, political, and social aspects that are central to the Islamic faith. Integrating the study of Islamic culture within Sharia sciences education allows students to confront the challenges posed by cultural invasions and the dangers of globalization. This enables students to develop a stronger grasp of their Islamic identity and values, guides and enlightens students on the necessity of distancing themselves from anything that may undermine or compromise Islamic principles and ethics, and cultivates intellectual security by equipping students with the knowledge and critical faculties to maintain the integrity of Islamic teachings in the face of contemporary societal and ideological influences.

Therefore, exploring the multifaceted manifestations of Islamic culture within Sharia science education is crucial for empowering students to navigate the complexities of the modern world while preserving the core tenets and principles of their faith. This holistic approach to Sharia sciences learning ensures the development of well-informed, culturally aware, and spiritually grounded Muslim individuals. Given the inevitability of communication and interaction with the globalized world, there is an urgent need to consolidate, frame, and disseminate the concepts of Islamic culture within the educational process. Islamic culture courses must be dynamic and responsive to contemporary developments and changes, which may include shifts in societal norms, global events, and technological progress (Aldosary & Alzeetawi, 2023).

We live in an era marked by extremes - either excessive indulgence or neglect. In this context, the concepts of Islamic culture have become necessary to provide Muslims with a solid foundation of truths that can serve as an impenetrable bulwark against the currents of misguidance and misunderstanding. High school students, in particular, need to acquire a deeper understanding of Islamic culture and heritage in an attempt to repel and dismantle the influence of foreign cultures. This is essential in light of a sound understanding of the Islamic religion and to overcome sectarian fanaticism (Al-Jazi, 2022).

The justification for learning concepts as a cornerstone of the school curriculum lies in their more permanent and stable nature compared to partial scientific facts. Tolba (2023) pointed out that concepts are mental tools that help learners navigate life, providing them with meaningful understanding. In light of this, studies have highlighted the importance of learning Islamic concepts and the associated cultural issues. This approach serves several critical objectives such as improving students' comprehension of Islamic concepts and strengthening their spiritual and religious knowledge, enhancing intellectual security, intellectual immunity, and cultural values, combating extremist thought by fostering intellectual pluralism aligned with social norms, activating the intellectual and cultural aspects of learning, opening channels of dialogue and acceptance of others, and strengthening Islamic identity and confronting contemporary universal values that contradict Islamic faith and identity (Tarihoran & Rahimah, 2018; Niswatin & Landali,

2022; Metwally et al.,2022; Al-Jazi, 2022; Abdalrhim & Habib, 2023; Aldosary & Alzeetawi, 2023; Mokoagow et al., 2024).

In addition to learning Islamic concepts and related cultural issues, it is crucial to equip students with higher-order thinking skills, such as critical and innovative thinking, as well as problem-solving abilities. These skills are necessary for students to navigate the complexities of the modern world without compromising their Islamic identity. The practical aspect of the Islamic culture curriculum cannot be overlooked. Students must develop a deep understanding of how the knowledge they acquire can be applied in their daily lives. This understanding ensures that students not only comprehend the theoretical aspects of Islamic culture but also understand how these concepts can be translated into concrete actions and decisions. Thus solidifying their commitment to their Islamic identity (Hopkins, 2011; Algumzi, 2017; Tarihoran & Rahimah, 2018; Dasopang & Rambe, 2023; Aldosary & Alzeetawi, 2023; Mokoagow et al., 2024).

The enormous potential offered by scientific, technological, and cognitive advancements in the twenty-first century should be leveraged to deliver the Islamic education curriculum in a contemporary form that aligns with its religious objectives. This approach can facilitate the development of Islamic cultural concepts, related issues, and the practice of higher-order thinking skills as the world is currently experiencing significant transformations and developments in values and culture that affect people's culture, especially Islamic culture. These changes have had a negative effect on identity, which is the essence of an individual. Therefore, paying close attention to and strengthening Islamic identity among students has become an urgent necessity in light of these transformations and developments (Aldosary & Alzeetawi, 2023).

In light of modern global trends, there is a positive movement towards leveraging technological innovations and integrating them into the educational process. This trend is gaining increasing importance due to the continuous development of human knowledge and experiences. Technological tools and applications have become a necessity to raise the efficiency and quality of the educational process. Given that the current generation is a "digitalized generation" that has been exposed to technology from an early age, teachers and supervisors should strive to meet the needs and expectations of this generation. This can be achieved by providing knowledge through electronic applications, programs, and other digital means and strategies that cater to their unique interests, abilities, and learning preferences. By doing so, students can become essential partners in the educational process, actively engaged and empowered through the use of technology (Tolba & Youssef, 2022, 2021; Caliskan & Zhu, 2020, 2021; Cooper et al., 2021; Agarwal, 2018).

Blended learning, which integrates traditional face-to-face instruction with online and digital learning elements, is well suited for teaching Islamic culture courses. This approach provides several key advantages (Lalima & Dangwak, 2017; Cleveland & Wilton, 2018; Anwar, 2016)

1. Advanced educational opportunities: Blended learning allows for the seamless integration of traditional, instructor-led lessons with digital resources, multimedia content, and interactive online activities. This combines the strengths of both modalities to enhance the learning experience.
2. Bridging traditional and modern education: By blending conventional teaching methods with information technology, blended learning strikes an optimal balance between time-tested pedagogical approaches and the latest digital innovations. This helps students engage with the course material in a manner tailored to their "digitalized" preferences.
3. Improved student engagement and outcomes: The strategic use of technology within a blended learning framework can foster greater student engagement, interactivity, and

active learning. This, in turn, can lead to improved comprehension, knowledge retention, and overall academic outcomes for students studying Islamic culture.

4. Flexibility and personalization: Blended learning models offer increased flexibility, allowing students to access digital course materials and complete online assignments at their own pace. This personalized approach caters to the unique needs and learning styles of the digitalized generation.

In the context of teaching Islamic culture, blended learning provides an excellent platform to deliver content, facilitate discussions, and incorporate multimedia resources that bring the subject matter to life for today's tech-savvy students. By embracing this approach, educators can effectively meet the requirements of the digitalized generation and make them active partners in the educational process. Therefore, this study aims at investigating the effectiveness of blended learning in developing Islamic culture concepts and higher-order thinking skills among secondary school students.

### **Research questions**

The current research sought to answer the following questions:

- 1- What is the effectiveness of using blended learning in developing students' Islamic culture concepts?
- 2- What is the effectiveness of using blended learning in developing students' higher-order thinking skills?
- 3- What is the correlation between developing students' Islamic culture concepts and higher-order thinking skills?

### **Research hypotheses**

The current study sought to test the following hypotheses:

- 1- There is no statistically significant difference at the significance level ( $\alpha \leq 0.05$ ) between the mean scores obtained by the experimental and control groups in the Islamic culture concepts test.
- 2- There is no statistically significant difference at the significance level ( $\alpha \leq 0.05$ ) between the mean scores obtained by the experimental and control groups in the higher-order thinking skills test.

## **LITERATURE REVIEW**

### **Islamic culture concepts**

Islamic culture refers to a way of life that Muslims adopt in all areas of life in accordance with the point of view and perceptions of Islam in the physical aspect, which is described as civility, and in the spiritual or intellectual aspect, which is known as civilization. Islamic culture is knowledge related to intellectual and spiritual matters based on the Islamic faith, derived from the fundamentals of the Islamic religion, such as the Holy Qur'an, the Sunnah of the Prophet Muhammad (peace be upon him), jurisprudence, consensus, analogy, history, and language (Enaya, 2013).

Islamic culture plays a critical role in shaping the awareness and identity of Muslim youth amid the forces of globalization. On one hand, globalization can negatively affect the Islamic identity of young Muslims by exposing them to contemporary values that may conflict with their religion, beliefs, and moral foundations (Attia, 2018). Islamic culture courses should be designed to be practical,

dynamic, and adaptable to contemporary developments and changes. This may involve responding to shifts in societal norms, significant global events, and advancements in technology. The courses should be structured in a way that enables them to evolve and stay relevant as the world around us continues to change (Aldosary & Alzeetawi, 2023; Niswatin & Landali, 2022).

The Islamic culture course explores a range of cultural concepts and contemporary issues, including topics related to terrorism and extremism, intellectual security, interfaith dialogue, and cultural exchange, promoting a culture of peace and freedom of religion/expression. It also explores economic topics like consumer loans, production, and sustainable consumption, environmental concerns such as combating desertification, social issues like spinsterhood, immigration, cross-cultural marriages, pollution, substance abuse, unemployment, women's rights, and superstitions/occult practices. The course aims to provide a comprehensive examination of these complex societal, economic, and cultural themes from an Islamic perspective, preparing students to navigate the dynamic landscape of the modern world (Al-Juhni, 2011).

The primary and overarching objective of the Islamic culture course is to provide a comprehensive introduction to Islam, by explaining the sources of Islam, such as the Quran and Sunnah, highlighting the key characteristics and teachings of the Islamic faith, and addressing important issues and concepts within the Islamic belief system. The goal is to give students a comprehensive and clear understanding of the foundations of Islam. The course also covers contemporary issues that require examining the Islamic perspective, such as topics related to terrorism, drugs, and environmental concerns (Al-Jazi, 2022).

Studies have confirmed the necessity of this approach in promoting a stronger sense of belonging and connection to Islam among students, as well as developing their Islamic identity, concepts, and cultural knowledge. Crucially, this focus on Islamic culture is vital for strengthening intellectual security and combating extremist thought, by establishing a climate of intellectual pluralism that can effectively activate an informed intellectual and cultural response. Moreover, the research highlights how prioritizing Islamic cultural education opens up crucial channels for meaningful dialogue and cultivating greater acceptance of diverse perspectives. (Abdalrhim & Habib, 2023; Faidah & Maarif, 2022; Al-Aedsani, 2022; Al-Zahrani, 2021; Ati, 2021; Mahmoud, 2020; Barshid, 2018; Al-Azzam, 2018; Tarihoran & Rahimah, 2018; Al-Sulaimani, 2017). It is crucial for equipping students with the faith, values, behavioral norms, and knowledge needed to develop a strong, civically engaged personality.

This empowers them to effectively defend their Islamic identity in an era marked by globalization. Importantly, this educational approach also arms students with the intellectual tools to navigate and address the various challenges they may face (Al-Zahrani, 2021; Dihoum, 2020; Ibn Aiban, 2018; Al-Zubaidi, 2015). Previous studies also emphasized the importance of developing concepts using learning strategies and models that enhance the positive role of the learner when learning Islamic concepts (Al-Salti, 2019).

### **Thinking and higher-order thinking (HOTS)**

According to Costa (1991), thinking is the process of receiving external stimuli through the senses (psychological processes), and then internally processing those stimuli (mental processes). It is one of the mental activities that characterize humans. There are numerous types of thinking skills that should be taught to students, including higher-order thinking skills (HOTS), which are described by Resnick (1987) as a set of detailed mental activities that require mental work and analysis of complex situations according to multiple criteria and avoiding simple solutions or formulations. HOTS are the ways in which an individual uses ideas to solve difficult and complex problems

(Newmann, 1991). They are also the ability to analyze, organize, interpret, and apply the learned knowledge and skills to new situations (Lewis & Smith, 1993). Table (1) shows the HOTS adopted in this research.

**Table 1: HOTS targeted by the study**

<b>Skill</b>	<b>Definition</b>	<b>Sub-skills</b>
1. Solving open-ended problems	The ability to figure out multiple solutions and ideas for open-ended problems that require solutions.	<ul style="list-style-type: none"> <li>- Identifying the problem</li> <li>- Analyzing the problem...</li> <li>- Setting alternatives</li> <li>- Determining the appropriate solution</li> <li>- Decision-making and solution evaluation</li> </ul>
2. Formulating predictions	The ability to understand data and build on it, that is, to go beyond the limits of the information given	<ul style="list-style-type: none"> <li>- Constructing a new cognitive structure</li> <li>- Anticipating future results and events</li> <li>- Imagining solutions to problems</li> </ul>
3. Data analysis and modeling	The capacity to deconstruct complicated data and information into their constituent parts and subparts, representing these parts using various formats, such as equations and conceptual diagrams, and establishing appropriate connections among these parts using linking tools.	<ul style="list-style-type: none"> <li>- Deconstruction of data, information, principles, and relationships into their components.</li> <li>- Classification of elements.</li> <li>- Identifying and distinguishing similarities and differences between elements.</li> <li>- Figuring out new conclusions and meanings.</li> <li>- Discovering the organized relationships between elements</li> </ul>
4. Organizing	The ability to organize information according to a specific idea or cognitive content.	<ul style="list-style-type: none"> <li>- Categorizing information.</li> <li>- Arranging information.</li> <li>- Reaching a new result.</li> </ul>

The role of the thinker is to create meaning from fragmented and sporadic parts, making sense of the ambiguity in experiences or circumstances based on evolutionary and procedural theories. These thinking skills enable students to acquire knowledge and apply it in new situations to solve problems and achieve desired results (Douce, 2016). It includes components of creative thinking, critical thinking, and problem-solving thinking (Heong et al, 2011).

The importance of HOTS is that they equip students with the tools to practice reasoning, understanding, evaluating, and applying information to find solutions to contemporary problems. HOTS also enhance the value of self-efficacy and mindset among students (Noh et al., 2017; Magsino, 2014; Dahalan, et al., 2020). Studies have also recommended the importance of focusing on developing students' HOTS using different teaching strategies and models and the teacher's focus on activities and questions that support thinking (Eyal et al. 2023; Surjanti et al., 2022; Suharno et al., 2022; Amali et al., 2022; Hashim & Alias, 2020; Singh et al., 2020; Suastra et al., 2019; Adam & Latif, 2018).

## **Blended learning**

In 2003, The American Society for Training and Development defines blended learning as the planned combination of live face-to-face interaction, synchronous or asynchronous collaboration, self-learning, and tools to improve performance (cited by Rooney, 2003). It includes three elements; the synthesis of instructional modalities, the synthesis of learning methods, and the synthesis between online and face-to-face learning methods (Ehman, 2001). In addition, it is a form of mixed learning that includes a combination of traditional teacher-based and e-learning student-centered methods and strategies (Garrison & Vaughan, 2008). It is a type of education in which conventional classroom instruction is seamlessly integrated with online learning as it involves combining various teaching strategies and methods with media and tools in online learning environments (Cronje, 2020; Hrastinski, 2019).

Blended learning is an approach that thoughtfully combines face-to-face and online learning experiences (Hrastinski, 2019; Halverson & Graham, 2019). The guiding principle is to optimize the integration of face-to-face oral communication and online written communication, leveraging the unique strengths of each to create a tailored learning experience that aligns with the context and intended educational objectives. This approach is underpinned by several key assumptions, including the thoughtful integration of both modes of learning, a fundamental rethinking of course design to enhance student engagement, restructuring and replacing traditional classroom contact hours, building a strong educational design centered around the learner, defining educational objectives in advance while considering learner characteristics and needs, incorporating diverse educational strategies and technological approaches, and providing rich learning resources (Cronje, 2020; Hrastinski, 2019; Garrison & Vaughan, 2008).

The advantages of blended learning are determined by the use of a minimum of effort and material cost, and it allows the learner to obtain the largest amount of information according to his speed of learning, and achieve the joy of learning and communication with the teacher and colleagues, and gives the teacher a positive role in the educational process (AlKhaleel, 2019; Singh, 2003), offering a variety of different educational practices and strategies in which students learn partly online, with an element of control over the time, place, path, or speed of learning, diversity in the nature of the educational activities provided (Kim, 2015), promoting active learning and independent learning in the e-learning environment (Woodall, 2012), creating a motivating learning system through the use of educational technology applications and designing a learning system that suits the different cognitive levels and learning styles of students (Yusoff et al., 2017), and Improving learning efficiency and achieving continuous learning (Cronje, 2020; Hrastinski, 2019).

Al-Sharman (2015) states that blended learning has various forms, including the learning stations model, the self-blended model, the Flex Model, and the Enriched Virtual Model. The learning stations model is the most common model of blended learning. It depends on students' navigation through scientific stations to build and enhance their knowledge and skills about the topics covered in the lessons. There are several types of the learning stations model, the most prominent of which is the rotation of teaching stations, or the classroom rotation. In this type, students learn a specific topic, in Islamic education, mathematics, science, etc., according to the teacher's instructions. While the other stations offer a variety of activities for completing assignments, having discussions, etc., at least one learning station must be provided via the Internet. In this model, students rotate through the previously designed stations. The main advantage of this model is that it helps students apply the concepts and skills they learn.

Blended learning can help students develop their understanding of Islamic culture while practicing a variety of HOTS such as problem-solving, data analysis, information organization, and forecasting;

which enhances correct understanding of the cultural concepts and issues included in the Islamic culture curriculum. This is consistent with other studies that found the effectiveness of using blended learning in developing concepts and conceptual understanding (Setyaningrum, 2018; Al-Harashah and Al-Khawaldeh 2011; AL-Soraiey & Alqahtani, 2010; Setyaningrum, 2018), developing motivation, academic achievement and attitudes towards studying the subject matter (Akgündüz & Akınoğlu, 2017; Ceylan & Kesici 2017; Lin et al., 2017), enhancing students' participation in the learning process and academic performance (Saritepeci & Çakır, 2015), developing critical thinking skills and improving learning outcomes (Harfiyani et al., 2018; Fazriyah et al., 2017), developing scientific thinking, investigation and analysis skills (Saman et al., 2012), finding explanations and solutions to various scientific problems, and enhancing thinking about natural phenomena (Hariadi et al., 2022) and developing HOTS (Eid et al., 2018; Al-Maqtari, 2021).

This study focuses on the learning stations model, which includes the presence of a student with a teacher inside and outside the educational environment. This is because this model would help students achieve the desired outcomes through the teacher's support, advice, and guidance. It would also help students gain cognitive independence, promote a culture of self-learning, and recognize that their learning is their responsibility inside and outside the classroom.

## METHOD

### Research design

To achieve the research objectives, a quasi-experimental design was used (pre-post test design for the experimental group, which studied using blended learning, and the control group, which studied conventionally (Table 2).

**Table 2: The quasi-experimental design of the study**

group	Pre-testing	Experimental intervention	Post-testing
Experimental group	Islamic Culture Concepts Test+ higher-order thinking skills test	Blended Learning	Islamic Culture Concepts Test+ higher-order thinking skills test
Control group		Usual Method	

### Study population and sample

The population for this study consisted of all second-year students enrolled at general public secondary schools in El-Dammam during the third semester of the academic year 2021-2022. According to El-Dammam Department of Education, this amounted to a total of (150) students.

From this population, the study sample was selected using a simple random sampling method. A total of (68) students were chosen - (36) students were assigned to the experimental group from the Eighteenth School in El-Dammam, while (32) students were assigned to the control group from Al-Shifa Bint Abdullah Secondary School, also in El-Dammam.

## TOOLS & EXPERIMENTAL PROCESSING MATERIALS

### 1- A teacher's guide for blended learning

After reviewing the literature related to blended learning such as Al-Maqtari, 2021; Eid and Awad, 2018; AL-Soraiey & Alqahtani, 2010; Setyaningrum, 2018; Harfiyani et al., 2018; Fazriyah et al., 2017; Al-Harashah and Al-Khawaldeh 2011), a teacher's guide was developed to help teach some of



lessons of the “Islamic Culture” unit via blended learning. The following lessons were determined (the rights of God Almighty, the rights of the Prophet Muhammad (peace be upon him), the call to God (da'wah), and examples of the Prophet's (peace be upon him) guidance. Examples of the guidance of the Prophet (peace be upon him) include integrity, chastity, Ethics, and their importance).

The guide included its general aims and significance, the concept of blended learning, its scientific principles and foundations, general procedures, models and types, stages, materials and technologies utilized, organizing the classroom environment, suggested schedule for the lessons or the guide topics, general instructions for the teacher, defining Islamic culture concepts intended to be developed, HOTS to be developed, the roles of the teacher and the students, and the procedural aspect of the lessons of the Islamic culture unit.

After developing the teacher’s guide, it was presented to (26) faculty staff members at the Departments of Curriculum and Instruction, the Sharia Sciences Instruction, and the Educational Psychology at universities inside and outside KSA, in addition to some specialists and practitioners in the educational field including, supervisors of Islamic education in the secondary stage. They evaluate the extent to which procedural lessons are compatible with the stages of blended learning, the extent to which the guide includes all the instructions and guidance that the teacher and students need in light of blended learning, the suitability of the learning activities provided to secondary school students, the suitability of evaluation methods to measure objectives, and the scientific and linguistic validity of the guide’s paragraphs. The jury members were also asked to write down any additional comments or suggestions that they thought might be beneficial. Amendments were made in light of their comments and suggestions.

## **2- The Islamic culture concepts test**

The test was developed based on analyzing the content of the Islamic concepts included in the Islamic culture unit in the Hadith curriculum (1) introduced in the third semester of the second year of secondary school. The items of the test were designed in a multiple-choice type to measure the six Bloom’s cognitive levels (recall, comprehension, application, analysis, synthesis, and evaluation). It consists of (42) item ranged. The face validity of the Islamic culture concepts test was verified by the opinions of (29) jury members who specialized in the field. Moreover, the discriminative was verified by arranging the members of the pilot sample (n = 44) in descending order according to the total score achieved by each of them on the Islamic culture concepts test. After that, a comparison was made between the highest 27% of scores (12 students) and the lowest 27% of the scores (12 students) using the Mann-Whitney (U) test. The results demonstrated statistically significant differences at the significance level (0.01) among the students with medium, low, and high levels on the Islamic culture concepts test, which indicates discriminative validity of the test in terms of differentiating the students’ performance levels in the Islamic culture concepts test. Furthermore, the test reliability was calculated by administering the Test-Retest method on the pilot sample with a time interval amounting to 15 days. The results revealed that the correlation coefficients ranged between 0.314 and 0.603 for each dimension of the test, while the reliability coefficient for the test as a whole reached (0.674), which indicates that the test has an appropriate degree of reliability.

## **3- The higher-order thinking skills test**

The test is related to the content of the “Islamic Culture” unit that was developed. This test was devoted to measuring open-ended problem solving, formulating predictions, analyzing and modeling data, and organization skills. The test consisted of (40) items equally distributed on the

four skills, including essay-type (32) items, and (8) multiple-choice items. The validity of the higher-order thinking skills test was verified by face validity by exploring the opinions of 29 jury members working at universities inside and outside KSA. Discriminative validity was also verified discriminative validity was verified by arranging the members of the pilot sample's total scores (n = 44) in descending order. A comparison was made between the highest 27% of scores (12 students) and the lowest 27% of the scores (12 students) using the Mann-Whitney (U) test. The results showed statistically significant differences at the significance level (0.01) among the students with average, low, and high grades on the higher-order thinking skills test, which indicates the discriminative validity of the test in terms of differentiating the students' performance levels in the higher-order thinking skills test. To calculate reliability, the Test-Retest method was administered to the pilot sample with a time interval of 15 days. The results revealed that the correlation coefficients ranged between 0.353 and 0.537 for the dimensions of the test, while the reliability coefficient for the test as a whole reached 0.674, which indicates that the test has a high degree of reliability.

## PROCEDURES

The following procedures were followed to implement the Intervention:

- Obtaining official approvals: A letter facilitating the task was obtained from the College of Education, Imam Abdul Rahman bin Faisal University, addressed to the Planning and Development Department, which in turn issued a letter of approval to implement the research intervention.
- The schools selected to implement the intervention were visited to coordinate the implementation procedures and to determine the expected period for its completion.
- Multiple training workshops were held via the Zoom application with the experimental group teacher to train her for 5 days on how to apply blended learning in the selected unit topics. The training included the following elements: providing a detailed explanation of the basic topics of the teacher's guide, and holding discussions about them, modeling a blended learning lesson for the teacher, and training him on how to implement the activities contained in the activity booklet, and on how to move between the stages of the strategy while adhering to the specified time to implement the activities of each stage of blended learning.
- Pre-application to the tools: The Islamic Culture Concepts Test and the Higher Thinking Skills Test were administered to the experimental and control groups to ensure the equality of the two groups in the Islamic Culture Concepts and Higher-Order Thinking Skills test as shown in Table 3.
- Implementation of the intervention: the students of the experimental group were taught via blended learning, while those of the control group were taught through the usual method.
- The Intervention: it took four weeks, with (8) classes per week for each group. The application began on Sunday, 28, 5, 2022, and ended on Thursday, 2, 6, 2022.
- Post-application to the tools: after completion of the intervention, the Islamic culture concepts test and the higher-order thinking skills test were administered to the two research groups. Both tests were corrected, followed by statistical treatment of the data, interpretation, and discussion.

**Table 3: Equivalence of experimental and control groups in Islamic Culture Concepts and HOTS**

variable	Group	N	Means	Standard deviation	t-Value	Significance
<i>Islamic Culture</i>	Experimental	36	19.306	3.493	0.436	Not significant

<i>Concepts Test</i>	Control	32	18.875	4.913		
Higher-Order Thinking Skills	Experimental	36	34.639	12.798	0.503	Not significant
	Control	32	36.438	16.631		

## RESULTS AND DISCUSSION

### First, the effectiveness of using blended learning in developing Islamic culture concepts

To test the validity of the first hypothesis of the research, which states: "There is no statistically significant difference at the significance level ( $\alpha \leq 0.05$ ) between mean scores obtained by the experimental and control groups in the Islamic Culture Concepts test". The "t" value was calculated to compare the mean scores of the experimental and control groups in the post-application to the Islamic concepts test as a whole and its dimensions, as shown in Table 4.

**Table 4: Means, Standard deviation, and t-value of the post-performance of the Islamic culture concepts test**

Cognitive Level	Group	N	Means		df	t- value	Significance
remembering	Experimental	36	10.06	1.12	66	7.92	significant at 0.05
	Control	32	6.13	2.73			
understanding	Experimental	36	6.81	1.86	66	8.04	significant at 0.05
	Control	32	3.53	1.44			
application	Experimental	36	6.47	0.81	66	12.45	significant at 0.05
	Control	32	3.19	1.33			
analysis	Experimental	36	5.89	0.39	66	9.87	significant at 0.05
	Control	32	3.50	1.39			
synthesis	Experimental	36	2.89	0.52	66	3.75	significant at 0.05
	Control	32	2.31	0.74			
evaluation	Experimental	36	5.58	0.73	66	6.40	significant at 0.05
	Control	32	4.03	1.23			
the Islamic culture concepts test	Experimental	36	37.78	3.79	66	12.37	significant at 0.05
	Control	32	22.69	6.12			

Table (4) shows that the “t” value is statistically significant at ( $0.05 \geq \alpha$ ), which indicates that there are statistically significant differences between the mean scores obtained by the experimental and control groups in the post-performance of the Islamic Culture Concepts test as a whole, and as cognitive levels included favoring the experimental group; therefore the first hypothesis could not be accepted. To examine the effect size of the independent variable (blended learning), Eta-squared ( $\eta^2$ ) and (d) values were calculated as shown in Table (4).

**Table 5: Values of t,  $\eta^2$ , and the effect size for using blended learning in testing the Islamic culture Concepts**

Independent variable	cognitive levels	t-test	Eta-squared $\eta^2$	effect size d	Magnitude
Blended learning	Recall	7.92	0.487	1.94	Large
	comprehension	8.04	0.495	1.98	Large
	Application	12.45	0.701	3.04	Large
	Analysis	9.87	0.596	2.41	Large
	Synthesis	3.75	0.176	0.92	Large
	Evaluation	6.40	0.383	1.57	Large
	the Islamic culture concepts	12.37	0.699	3.04	Large

Table (5) reveals that the effect sizes of using blended learning in developing the Islamic Culture Concepts as a whole and as cognitive levels were large. These results demonstrate the effectiveness of using blended learning in developing Islamic culture concepts for secondary school students. This result can be explained by the impact of using blended learning on enhancing Islamic culture concepts learning, making them more reasonable and less susceptible to change or forgetting. Blended learning also encourages students to use these concepts in interpreting new or unfamiliar situations, along with transferring the learning effect, increasing students’ interest and motivation, and improving their ability to use information and concepts of Islamic culture in complex life situations.

This result is consistent with other studies that indicated the effectiveness of blended learning in developing concepts and conceptual understanding (Setyaningrum, 2018; Al-Harashah and Al-Khawaldeh, 2011) and developing academic achievement (Akgündüz & Akinoğlu, 2017; Ceylan and Casey, 2017). Lin et al., (2017), enhancing student engagement in the learning process and academic performance (Saritepeci & çakır, 2015).

This result extends to generalizing the results of other studies in terms of emphasizing the importance of developing concepts using learning strategies and models that enhance the positive role of the learner when learning concepts. (e.g Mokoagow et al., 2024; Faidah & Maarif, 2022; Metwally et al., 2022; Al-Salti, 2019). This result can be interpreted in light of blended learning combining the strengths of both face-to-face and online learning experiences into a unique learning

experience that enhances concept learning (Hrastinski, 2019; Halverson & Graham, 2019). Through it, the Islamic culture course was redesigned to improve student engagement and build a strong learner-centered educational design. It also took into account the learner's characteristics and needs, and diversity in educational strategies, and provided rich educational resources (Cronje, 2020; Hrastinski, 2019; Garrison and Vaughan, 2008).

In addition, it can be interpreted in light of the advantages of blended learning, which allowed the learner to learn the concepts of Islamic culture according to his speed of learning, and gave him the pleasure of learning and communicating with the teacher and colleagues, and gave the teacher a positive role in the educational process, represented by diversifying the sources of learning the concepts of Islamic culture, and providing diverse interpretations of these concepts (Singh, 2003), it also introduced a variety of different educational practices and strategies in which students learn partly online, diversity like educational activities provided (Kim, 2015), and enhanced the learner's practice of active learning and independent in the e-learning environment (Woodall, 2012), creating a stimulating educational system according to students' learning styles (Yusoff et al., 2017), and enhancing continuous learning (Cronje, 2020; Hrastinski, 2019).

### Second, the effectiveness of using blended learning in developing HOTS

To test the validity of the second hypothesis of the research, which states: "There is no statistically significant difference at the significance level ( $\alpha \leq 0.05$ ) between the mean scores obtained by the experimental and the control groups in the HOTS". The "T" value was calculated to compare the mean scores of the experimental and control groups in the post-performance of the HOTS test as a whole and its sub-dimensions, as shown in Table 6.

**Table 6: Means, Standard deviation, and t-value of the post-performance of the HOTS as a whole and its sub-dimensions**

Variable	Group	N	Means	Standard deviation	d.f	t-value	Significance
Solving open-ended problems	<i>Experimental</i>	36	9.69	0.92	66	7.79	significant at 0.05
	<i>Control</i>	32	5.66	2.96			
Formulating predictions	<i>Experimental</i>	36	14.50	1.46	66	6.30	significant at 0.05
	<i>Control</i>	32	9.25	4.76			
Data analysis and modeling	<i>Experimental</i>	36	23.14	1.25	66	10.26	significant at 0.05
	<i>Control</i>	32	12.94	5.83			
Organizing	<i>Experimental</i>	36	21.94	2.57	66	4.91	significant at 0.05
	<i>Control</i>	32	15.66	7.19			
The higher-order thinking skills test	<i>Experimental</i>	36	69.28	4.40	66	9.49	significant at 0.05
	<i>Control</i>	32	43.50	15.62			

Table (6) shows that the “t” value is statistically significant at the level ( $0.05 \geq \alpha$ ), which indicates that there are statistically significant differences between the mean scores of the experimental and control groups in the post-performance of the HOTS test as a whole and its sub-skills (solving open-ended problems, formulating predictions, data analysis and modeling, organizing) favoring the experimental group; therefore the second hypothesis could not be accepted. To examine the effect size of the independent variable (blended learning), Eta-squared ( $\eta^2$ ) was calculated as shown in Table (7).

**Table 7: Values of t,  $\eta^2$ , and the effect size for blended learning in the HOTS test**

Independent variable	higher-order thinking skills	t-test	Eta-squared $\eta^2$	effect size d	Magnitude
Blended learning	Solving open-ended problems	7.79	0.479	1.90	Large
	Formulating predictions	6.30	0.375	1.55	Large
	Data analysis and modeling	10.26	0.614	2.52	Large
	Organizing	4.91	0.268	1.20	Large
	the higher-order thinking skills test	9.49	0.577	2.34	Large

Table (7) reveals that the effect sizes of using blended learning in developing HOTS and their sub-skills were large. These results demonstrate the effectiveness of using blended learning in developing secondary school students’ HOTH. This result can be explained by the effect of using blended learning in developing HOTS. The software and applications utilized in blended learning have the potential to improve students’ thinking and productivity. Moreover, the questions raised by students, the discussion rooms, and the self-learning carried out by the students contribute to enhancing their thinking skills, along with encouraging the culture of dialogue, listening, acceptance, criticism, and negotiation skills (Cronje, 2020; Hrastinski, 2019; Easley & Hoffman, 2000).

This result emphasizes the importance of developing HOTS, as it equips students with the tools needed to practice critical thinking, understanding, evaluation, and application of information. This is particularly relevant for an Islamic culture course, which may cover complex contemporary issues such as terrorism, extremism, intellectual security, interfaith and cultural dialogue, concepts of national dialogue like peace and freedom of religion/expression, as well as economic topics like consumer loans, production, and consumption. The course may also address social issues such as spinsterhood, immigration, marriage to foreign women, environmental challenges, substance abuse, unemployment, and occult practices. Cultivating HOTS enables students to thoughtfully engage with and find solutions to the multifaceted concerns raised within the Islamic culture curriculum. (Aldosary & Alzeetawi, 2023; Abdalrhim & Habib, 2023; Metwally et al., 2022; Magsino, 2014; Al-Juhani, 2011).

It also emphasizes utilizing diverse teaching strategies and models, as well as designing activities and questions that foster critical thinking to support students as they learn the concepts and issues surrounding Islamic culture. This approach enables students to move beyond simply memorizing information and instead engage in deeper understanding, analysis, evaluation, and application of

the material. By centering HOTS-focused pedagogy, students can grapple with the complex topics covered in the Islamic culture curriculum, such as terrorism, extremism, intellectual security, interfaith dialogue, economic concerns, and social challenges. Equipping students with these essential cognitive skills prepares them to thoughtfully address the multifaceted contemporary issues related to Islamic culture (Eyal et al. 2023; Surjanti et al., 2022; Suharno et al., 2022; Amali et al., 2022).

This result is consistent with other studies that indicated the effectiveness of blended learning in developing HOTS (Eid et al., 2018; Al-Maqtari, 2021). These studies recommended the using multimedia programs in developing HOTS and drawing attention to those who ARE responsible for employing e-programs, including multimedia, designing, and developing textbooks. It was consistent with these studies as blended learning contributes to stimulating learning and developing HOTS, and makes students engage positively by providing different active learning-based activities. It is also consistent with Alias (2020); Suharno et al. (2022); Noh et al. (2017); and Amali et al., (2022) that learners' higher-order thinking skills can be developed by using different approaches, models, and teaching strategies.

## CONCLUSIONS

The results revealed that there is a statistically significant difference at the significance level of 0.05 between the mean scores obtained by the experimental and control groups in the Islamic culture concepts test favoring the experimental group, there is a statistically significant difference at the significance level of 0.05 between the mean scores obtained by the experimental and control groups in the higher order thinking skills test favoring the experimental group. Accordingly, using blended learning was effective in developing students' Islamic culture concepts and higher-order thinking skills.

## IMPLICATIONS FOR PRACTICE OR POLICY:

- The Islamic culture curriculum developers should integrate higher-order thinking skills in the "Hadith and Islamic Culture" curriculum, and encourage students to practice these skills through various curricular activities.
- It is recommended that teacher preparation programs provide prospective teachers with training on blended learning strategies. This would involve equipping future educators with the knowledge and skills to effectively implement a combination of face-to-face instruction and technology-mediated learning in their classrooms
- This study has the potential to open new avenues of research for scholars in the field of Islamic education. Researchers may be inspired to investigate issues related to the rapid societal changes of the new millennium, as well as the initiatives outlined in the Saudi Vision 2030, which emphasize the integration of the latest modern technologies into the educational process.
- Instructional designers are encouraged to focus their attention on developing effective blended learning instructional design strategies and models.

## FUTURE RESEARCH

Based on the results presented in this study, the following recommendations are proposed for future research in the field of Sharia sciences teaching and learning:

1. Investigating the effectiveness of blended learning in developing secondary school students' metacognitive skills, reflective thinking, convergent thinking, divergent thinking, and emotional thinking.

2. Investigating the effectiveness of blended learning in developing intermediate school students' jurisprudential concepts and self-regulated learning skills.
3. Exploring the challenges faced by Sharia science teachers in implementing blended learning approaches, and developing a suggested framework for designing training programs to equip Sharia science teachers with the skills and knowledge to effectively utilize blended learning methodologies
4. Evaluating Sharia sciences teachers' performance concerning the development of secondary school students' higher-order thinking skills.
5. Evaluating the Sharia sciences curriculum in light of its emphasis on fostering higher-order thinking skills.

## REFERENCES

- Abdalrhim, M., & Habib, A. (2023). The role of the Islamic culture courses in enhancing the intellectual security among PSAU students. *Revista Gestão e Secretariado*, 14 (10), 16920-16945. <http://doi.org/10.7769/gesec.v14i10.2817>
- Adam, N., & Latif, A. A. (2018). Students' Ability in Answering Higher Order Thinking Skills (HOTS) Questions in Islamic Education Subject. *Advanced Science Letters*, 24(1), 479-481.
- Agarwal, N. (2018). A study of innovations in instructional strategies and designs for quality enrichment in Higher Education. *Cosmos: An International Journal of Art & Higher Education*, 7(2), 1-12.
- Akgündüz, D., & Akınoğlu, O. (2017). The Impact of Blended Learning and Social Media-Supported Learning on the Academic Success and Motivation of the Students in Science Education. *Education & Science*, 42(191), 69-90.
- Al-Aedsani, B. (2022). The role of Islamic culture in promoting belonging to Islam and preserving identity. *Cairo Periodical of Islamic Da'wa*. 34(2), 326-363. [https://journals.ekb.eg/article\\_218728\\_7bf7b43f8be7010e464bf5073681ce87.pdf](https://journals.ekb.eg/article_218728_7bf7b43f8be7010e464bf5073681ce87.pdf)
- Al-Azzam, M. (2018). The role of university education in enhancing intellectual security from the point of view of faculty members at the University of Hail. *International Specialized Educational Journal. Volume (7). Issue (2). February 2018*.
- Aldosary, A. M., & Alzeetawi, D. U. (2023). The Impact of Contemporary Universal Values on the Islamic Identity of Qatar University Youth in Light of the Islamic Culture Curriculum. *International Journal of Academic Research in Business & Social Sciences*, 13(9), 1118-1132. <https://doi.org/10.6007/IJARBS/v13-i9/18504>
- Algumzi, A. (2017). *The Impact of Islamic Culture on Business Ethics: Saudi Arabia and the Practice of Wasta*. A thesis submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy, Lancaster University.
- Al-Harashah, A., & Hamadna, A. (2011). The effect of teaching Islamic education using the dramatic approach on developing some religious concepts for fifth grade students in Jordan. *Journal of Scientific Research in Education*, 4(12), 1031-1052.
- Ali, A. & Al-Kazemi, A. (2007). Islamic work ethic in Kuwait. Cross cultural management. *An international Journal*, 14(2), pp.93-104. <https://doi.org/10.1108/13527600710745714>
- Al-Jazi, A. (2022). The Extent of Delivering Objectives of the Islamic Culture Course Cognitive Content at Tafilh Technical University from the Students' Point of View in the Light of Some Variables (Evaluation Study). *Journal of Education & Social Policy*, 9 (2), 107-114. <https://doi.org/10.30845/jesp.v9n2p11>.
- Al-Juhani, A. (2011). Analytical study of contemporary issues with the content of Islamic culture in books of hadith and Islamic culture for the secondary stage in Saudi Arabia, *Journal of Arab Studies in Education and Psychology*, 5 (3), 197-222.



- AlKhaleel, A. (2019). The Advantages of Using Blended Learning in Studying English as a Foreign Language at the University of Tabuk. *Modern Journal of Language Teaching Methods*, 9 (2), 1-7.
- Al-Maqtari, R. (2021). The effect of a multimedia program on the acquisition of chemical knowledge and higher-order thinking skills, *Journal of Educational Sciences and Human Studies*, (14), 27-1.
- Al-Salti, M. (2019). The effect of teaching using the VEE form strategy in developing religious concepts in Islamic education for ninth grade students in Jordan. *Journal of Educational and Psychological Sciences*, 3(23), 23-38.
- Al-Sharman, Atef Abu Hamid. (2015). *Blended Learning and Flipped Learning* (1<sup>st</sup> ed.). Dar Al Masirah for Publishing, Distribution and Printing.
- AL-Soraiey - Alqahtani, W. (2010). *The Effectiveness of Using E-learning, Blended Learning and Traditional Learning on Students' Achievement and Attitudes in a Course on Islamic Culture: an Experimental study* [Doctoral dissertation, Durham University]. Durham theses and dissertation archive. <http://etheses.dur.ac.uk/817/>
- Al-Sulaimani, M. (2017). The role of the family in preserving the Islamic identity from the danger of intellectual invasion. *Arab Studies in Education and Psychology*, 87(1), 477-505.
- Al-Zahrani, A. (2021). The contribution of the Islamic Culture Course to the awareness of university students King Abdul Aziz with intellectual deviations. *Journal of Educational and Psychological Sciences, National Research Centre in Gaza*, 5 (26), 53-73.
- Al-Zubaidi, A. S. (2015). *The role of university education in facing the effects of globalization on the components of Islamic Identity*. PhD Thesis. College of Education, Um Al-Qura University. Mecca, Saudi Arabia.
- Amali, L., Bharati, D., & Rozi, F. (2022). The Implementation of High Order Thinking Skills (HOTS) Assessment to Evaluate the Students' Reading Comprehension Achievement. *English Education Journal*, 12 (1), 10-18. <http://journal.unnes.ac.id/sju/index.php/eej>.
- Amali, L., Bharati, D., & Rozi, F. (2022). The Implementation of High Order Thinking Skills (HOTS) Assessment to Evaluate the Students' Reading Comprehension Achievement. *English Education Journal*, 12 (1), 10-18. <http://journal.unnes.ac.id/sju/index.php/eej>
- Anwar, C. (2016). The Effectiveness of problem based learning integrated with Islamic values based on ICT on higher order thinking skill and students' character. *Al-Ta Lim Journal*, 23(3), 224-231.
- Ati, A. (2021). The role of Islamic culture in promoting values and ethics from the point of view of the students of the Department of Islamic Culture. *Arab Journal for Sharia and Legal Studies*, 4(3), 1-18.
- Attia, M. S. H. (2018). The repercussions of globalization and its impact on cultural identity. *Canter Foreign Languages and Specialized Translation*, 72(3), 91-115.
- Barshid, A. M. (2018). The educational role of the family in preserving the Islamic identity of the point of view of parents in Medina. *International Journal of Educational and Psychological Studies*, 4(3), 445-468.
- Caliskan, A., & Zhu, C. (2020). Organizational Culture and Educational Innovations in Turkish Higher Education: Perceptions and Reactions of Students. *Educational Sciences: Theory and Practice*, 20(1), 20-39.
- Çaliskan, A., & Zhu, C. (2021). Organizational Culture Barriers and Facilitators for Instructional Innovations at the Faculty of Education. *Eurasian Journal of Educational Research*, 92, 137-166.
- Ceylan, V. & Kesici, A. (2017). Effect of blended learning to academic achievement. *Journal of Human Sciences* 14(1), 308-320.
- Cleveland-Innes, Innes, M., & Wilton, D. (2018). *Guide to Blended Learning*, Commonwealths of Learning. Canada, Canada.

- Cooper, J., Gamlieli, H., Koichu, B., Karsenty, R., & Pinto, A. (2021). Instructional innovation in mathematics courses for engineering programs—a case study. *Khon Kaen, Thailand 19-22 July 2021*
- Costa, A. (1991). *A Developing Minds: A resource book for Teaching Thinking*, Alexandria, Virginia: (ASCD).
- Cronje, J. (2020). Towards a new definition of blended learning. *Electronic journal of e-Learning*, 18(2), pp114-121.
- Dahalan, S., Ahmad, A.R., & Seman, A.A. (2019). Higher order thinking in the content knowledge of history lesson in Malaysia. *HISTORIA: Journal of Historical Educators and Researchers*, 3 (2), 75-80.
- Dahalan, Shakila, et al., (2020) "Higher order thinking in the content knowledge of history lesson in Malaysia" ,*HISTORIA: Jurnal Pendidik dan Peneliti Sejarah*. 3 (2) , 1-6. <https://doi.org/10.17509/historia.v3i2.23560>
- Dasopang, E., & Rambe, S. (2023). Modernization of Indonesian Islamic Education: Critical Analysis of Madrasa Curriculum Development. *Edumaspul: Jurnal Pendidikan*, 7(1), 398-409.
- Dihoum, A. (2020). Islamic Identity and the Challenges of Globalization. *Science Journal Humanity*, 21(3), 430-454.
- Douce, E.(2016). *The Effect of Foreign Language Teacher's Level of Technology Instruction on Student's Development of Higher Order Thinking Skills*. Unpublished Doctoral Dissertation, Faculty of the Department of Administration and Instructional leadership of the School of Education, St John's University New York.
- Easely, l., & Hoffman, S (2000): Creating The Electronic Classroom: A Practical Guide. *International Journal Of Social Education*, 15 (1), 80 – 93.
- Ehman, L (2001): Using Stand Alone Web Modules to Integrate Teaching into Secondary Social Methods Instructions, *Journal Of Research On Technology In Education*, 34 (1), 39-50. <https://doi.org/10.1080/15391523.2001.10782332>
- Eid, S., Tuffaha, J., Jabrouni, T., & Awad, A. (2018). The effectiveness of blended learning in developing innovative thinking of the visual basic content for middle school students. *College of Education Journal*, (23), 522-566.
- Enaya, G. (2013). *The authenticity of scientific facts and Islamic culture*. Dar Zahran. Amman, Jordan.
- Eyal, L., Rabin, E., & Meirovitz, T. (2023). Pre-service teachers' attitudes toward integrating digital games in learning as cognitive tools for developing higher-order thinking and lifelong learning. *Education Sciences*, 13(12), 1165. <https://doi.org/10.3390/educsci13121165>
- Faidah, N., & Maarif, M. (2022). Literacy-Based Islamic Cultural History Learning at Islamic Elementary School. *Jurnal Pendidikan Islam Indonesia*, 6 (2), 110- 122. <https://doi.org/10.35316/jpii.v6i2.345>
- Fazriyah, N., Supriyati, Y., & Rahayu, W. (2017). The Effect of Integrated Learning Model and Critical Thinking Skill of Science Learning Outcomes. *IOP Conf. Series: Journal of Physics: Conf. 812*: 1-5
- Franceschelli, M., & O'Brien, M. (2014). Islamic capital' and family life: The role of Islam in parenting. *Sociology*, 48(6), 1190-1206.
- Garrison, R. & Vaughan, N. (2008). *Blended Learning in Higher Education: Framework, Principles, and Guidelines*. Jossey-Bass AWiley Imprint. www.josseybass.com
- Halverson, L. R., & Graham, C. R. (2019). Learner engagement in blended learning environments: A conceptual framework. *Online Learning*, 23(2), 145-178.
- Harfiyani, A., Sudrajat, A., & Sumantri, M. (2018). The Effect of Integrated Learning (Webbed and Connected) and Cognitive Style on Critical Thinking Skills in Social Knowledge Learning. *East African Scholars Journal of Education, Humanities and Literature* 1(3): 95-99

- Hariadi, B., Jatmiko, B., Sunarto, M., Prahani, B., Sagirani, T., Amelia, T., & Lemantara, J. (2022). Higher order thinking skills based learning outcomes improvement with blended web mobile learning model. *International Journal of Instruction*, 15(2), 565-578. <https://doi.org/10.29333/iji.2022.15231a>
- Hashim, R., & Alias, H. (2020) "Developing High-Order Thinking in Primary School Students through Qur'anic Stories and the Hikmah Pedagogy of Philosophical Inquiry", *Iium Journal Of Educational Studies*, 8(1) ,PP. 89-111.
- Hashim, R., & Alias, H. (2020) "Developing High-Order Thinking in Primary School Students through Qur'anic Stories and the Hikmah Pedagogy of Philosophical Inquiry", *Iium Journal Of Educational Studies*, 8(1) ,PP. 89-111.
- Heong, Y., Othman, W., Yunos, J., Kong, T., Hassan, R. & Mohammad, M. (2011). The Level of Marzano Higher Order Thinking Skills Among Technical Education, Students. *International Journal of Social Science and Humanity*, 1(2), 121-123.
- Hopkins, N. (2011). Religion and social capital: Identity matters. *Journal of Community and Applied Social Psychology*, 21(6), pp.528-540.
- Hrastinski, S. (2019). What do we mean by blended learning?. *TechTrends*, 63(5), 564-569.
- Ibn Aiban, I. (2018). Preserving the elements of the student's Islamic cultural identity University and its relationship to the values of citizenship: a field study on students of the College of Education at the University of Bshaqra. *Taif University Journal for Humanities*, 4(17), 273-326.
- Kim, W. (2015). *Towards a Definition and Methodology for Blended Learning, Blended Learning for Programming Courses: A Case Study of Outcome Based Teaching & Learning, Workshop on Blended Learning*. The Hong Kong Web Society, United Kingdom.
- Lalima, D. K., & Dangwal, K. L. (2017). Blended learning: An innovative approach. *Universal Journal of Educational Research*, 5(1), 129-136
- Lewis, A., & Smith, D. (1993). Defining higher-order thinking. *Theory Into Practice*, 32(3), 131-137. <https://doi.org/10.1080/00405849309543588>
- Lin, Y.W., Tseng, C.L. & Chiang, P.J. (2017), the Effect of Blended Learning in Mathematics Course. *EURASIA Journal of Mathematics Science and Technology Education*, 13(3): 741-770.
- Magsino, R. (2014). Enhancing Higher Order Thinking Skills in a Marine Biology Class through Problem-Based Learning Problem-Based Learning. *Asia Pacific Journal of Multi-Disciplinary Research*. 2(5), 1-6.
- Mahmoud, B. A. (2020). Youth between Islamic values and the challenge of globalization. *Madarat of Science Journal Social and Humanitarian*, 2(3), 70-85.
- Metwally, A., Alabdaly, A., & Bouziane, M. (2022). the role of Islamic culture courses in maintaining the Islamic identity: Case Study of Faculty of Languages and Translation Female Students at King Khalid University. *Language Literacy: Journal of Linguistics, Literature, and Language Teaching*, 6 (2), 232- 244. <https://doi.org/10.30743/ll.v6i2.5911>
- Mokoagow, F., Yahiji, K., Ondeng, S., & Arif, M. (2024). Curriculum Development for Islamic Cultural History Subjects. *Journal La Edusci*, 5 (01), 45-53. DOI: 10.37899/journallaedusci.v5i1.964
- Newmann, F. M. (1991). Promoting higher order thinking in social studies: Overview of a study of sixteen high school departments. *Theory and Research in Social Education*, 19(4), 325-326. <https://doi.org/10.1080/00933104.1991.10505645>
- Niswatin, M., & Landali, A. (2022). Designing Islamic-Cultural Based High School Curriculum for Economics-Accounting Course. *International Journal of Religious and Cultural Studies*, 4 (2), 198- 2015. <https://doi.org/10.34199/ijracs.2022.10.08>
- Noh, M., Ajmain, M., & Abdul Rahman, E. (2017). Teachers' Practice of Higher Order Thinking Skills in the Lesson of Islamic Education. *Tinta Artikulasi Membina Ummah* 3 (2), 1-13.

- Resnick, L. (1987). *Education and learning to think*. Washington DC: National Academy Press.
- Rooney, J. E. (2003). Blending learning opportunities to enhance educational programming and meetings. *Association Management*, 55(5), 26-32.
- Saman, S., & Chaijaroen, S., (2012). Development of Rich Chemistry Multimedia Learning Environment Models to foster Science Thinking. *European Journal of social sciences*, Vol.3 No.3, pp.410-421.
- Saritepeci, M. & Çakır, H. (2015). The Effect of Blended Learning Environments on Student's Academic Achievement and Student Engagement: A Study on Social Studies Course. *Education and Science* 40(177), 203-2016.
- Setyaningrum,W. (2018).Blended learning :Does it help student in understanding mathematical concepts *Journal of mathematical Education*,5(2),244-253.
- Singh, C. K. S., Gopal, R., Tek, O. E., Masa Singh, T. S., Mostafa, N. A., & Ambar Singh R. K. (2020). ESL teachers' strategies to foster higher-order thinking skills to teach writing. *Malaysian Journal of Learning and Instruction*, 17(2), 195-226. <https://doi.org/10.32890/mjli2020.17.2.7>
- Singh, H. (2003): Building Effective Blended Learning Programs. *Educational Technology*, 43 (6), 51 – 54.
- Suastra, I. W., Suarni, N. K., & Dharma, K. S. (2019). The effect of problem based learning (PBL) model on elementary school students' science higher order thinking skill and learning autonomy. *Journal of Physics. Conference Series*, 1318(1), 12084. <https://doi.org/10.1088/1742-6596/1318/1/012084>
- Suharno, S., Irmawan, S., Saputro, H., Agung, N., & Jumintono, J. (2022).Improving Students' Higher Order Thinking Skills in Learning Health Systems Using Mobile-Based Instructional Approach. *Health Education and Health Promotion*. 10(1),57-62.
- Surjanti, J., Prakoso A. F., Kurniawan, R. Y., Sakti, N. C., & Nurlaili, E. I. (2022). Development of high order thinking skills in Indonesian teachers. *The Education and Science Journal*. 24 (3): 104–125. <https://doi.org/10.17853/1994-5639-2022-3-104-125>.
- Tarihoran, N. & Rahimah. (2018). Exploring the Islamic Culture in English for Islamic Studies (EIS) Classroom. *Advances in Social Science, Education and Humanities Research (ASSEHR)*, volume 304, 4th ASEAN Conference on Psychology, Counselling, and Humanities (ACPCH 2018). 11-15. <http://creativecommons.org/licenses/by-nc/4.0/>.
- Tolba, E. (2023). *The Model-Based Thinking Strategy (MBTS): Developing Physical Concepts and Inquiry Thinking Skills*. London, LAP LAMBERT Academic Publishiong. <https://www.amazon.com/Model-Based-Thinking-Strategy-MBTS-Developing/dp/6206739260>
- Tolba, E. & Youssef, N. (2022). High school science teachers' acceptance of using distance education in the light of UTAUT. *EURASIA Journal of Mathematics, Science and Technology Education*, 2022, 18(1), 1-18, emXXXX. <https://doi.org/10.29333/ejmste/xxxxx>
- Tolba, E. & Youssef, N. (2021). Beliefs about entrepreneurial distance education and its relationship to teachers' professional self-efficacy. *Journal of Entrepreneurship Education*, 24 (S2), 1-27.
- Woodall, D. (2012). *Blended Learning Strategies: Selecting the Best Instructional Method*. White Paper, Blended Learning Strategies.
- Yusoff, S.,Yusoff, R. & Noh, N. (2017). *Blended Learning Approach for Less Proficient Students*, SAGE Open.