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EFFECT OF MODELING TEACHING METHOD ON CRITICAL THINKING SKILL OF STUDENTS IN THE SUBJECT ISLAMIYAT AT SECONDARY SCHOOL LEVEL

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Abstract

The prime objective of 21st century skills is to develop critical thinking skills among students for the development of a sound society. The objective of this experimental but quantitative study was to explore the effect of modeling on the critical thinking skills of students in the subject of Islamiyat at the secondary school level. An equivalent material design with a single group was used for this study. Modeling technique was used as a teaching method. The content-based test was administered to measure critical thinking skills before and after the experiment. The content-based test was the tool to collect the data. The findings indicate that employing modeling as a teaching method for the enumeration rule developed students' critical thinking skills in the subject of Islamiyat. Based on the results of research and data analysis, researchers concluded that modeling as a teaching method has the scope to empower the critical thinking skills of students.

Key Words: Islamiyat, Critical Thinking Skills, Modeling,

1.Introduction

Education is the main source of self -actualization and understanding the meanings of life. It drives out illusion and eliminates darkness. Although teachers usually guide students during their education, students can also educate themselves. It may occur in formal or non-formal environments. Additionally, any experience that shapes a person's thoughts, emotions, or behaviour can be classed as educational. Teachers often employed a range of techniques to teach adolescents the subject matter. Lecture, seminar, and discussion are common instructional modalities. Modelling method is considered one of the best teaching strategies. It is one of the most reliable ways to learn is by direct observation, which is the main learning process used in this method The process of learning, including comprehending, and communicating the communication to a student is completed more quickly and easily. There will be fewer learning errors and mistakes. When a student watches human models, they learn about his own human abilities and capabilities and works to perfect them This strengthens the student's self-esteem, gives him more confidence to pursue his perfections, and increases his motivation to do so In the context of Islam, modeling as a teaching method can be particularly effective in conveying Islamic principles, values, rituals, and practices. Here's how modeling can be utilized as a teaching method in Islamiyat, along with references to support its effectiveness: regarding the Prophet (P.B.U.H)himself, who serves as an exemplar, the subsequent two verses provide further clarification:

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(ERI)

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There has certainly been for you in the Messenger of Allah an excellent pattern for anyone whose hope is in Allah and the Last Day and [who] remembers Allah often. (Al-Ahzaab: 21)

وَإِنَّكَ لَعَلَىٰ خُلُق عَظِيمٌ ٤

You do undoubtedly possess a high moral character. (Al-Qalam: 4).

The silent teaching approach of the Prophet Muhammad (P.B.U.H) was facilitated by his character, which included kindness and gentleness, honesty and truthfulness, and pure intention, all of which contributed to the accomplishment of His mission. In Islam, it is not so much about possessing information as it is about expressing it. At one time, someone questioned Aisha R.A. over his actions, saying, "Did you not recite the Holy Qur'an? He follows the Qur'an" (Roza, 2023).

Correct reasoning in the search for pertinent and trustworthy knowledge about the outside world is referred to as critical thinking (Higgins, 2014). To think critically is to search for accurate and pertinent information about the world (Paul & Binker, 1990). It can also be defined as rational, thoughtful, accountable, and skillful thinking that is directed towards making decisions about what to think or do. (Tegja & Dennis, 2016). A critical thinker can formulate pertinent questions, obtain pertinent data, organize it creatively and efficiently, apply logic to it, and draw conclusions (Wagner & Fair, 2020). From an Islamic perspective, critical thinking is quite essential since it encourages Muslims to think critically, which helps them relate the creation proof to life and draws them closer to Allah (Suhailah, 2000). Critical thinking will also help people learn to think differently, to trustworthy and dependable judgements about the world that allow one to properly live and act in it (Gilani, 2014). In actuality, the Qur'anic phrases Tafakkur and other ones encouraging critical and creative thought have contributed significantly to the advancement of human civilization (Jamal & Mustafa, 2004). Machouche, and Bensaid, (2015) described critical thinking also helps people learn to distinguish between good and negative things in their life. Therefore, Muslims should follow the teachings of the Qur'an because they encourage people to consider how the cosmos came to be. Endut et al. (2014) noted that there is a close relationship between Islamic critical thinking and the significance of the alyaqin factor. Pertaining to these two definite settings the analytical process of knowledge verification and evaluation, which is recognized as a crucial component of critical thinking, would naturally be covered by the methodological framework that concentrates on the pragmatic and logical aspects of al-yaqin. On the other hand, "to seek understanding" means more to a Muslim in order to seek understanding in order to know Allah (Alwadai, 2014). In Surah Sad, Allah SWT states unequivocally in the Our'an:

This is a good book that We have revealed to you, O Prophet, so that people of reason can reflect on its passages and be mindful.

The requirement of "ulul al-bab," which promotes thought, is mentioned in the Al-Qur'an. The Islamic tradition places a strong emphasis on thinking. Allah made it possible for man to reason



(ERI)

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(afala ya'qilun), think creatively (afala tatafaqqarun), and to reflect, ask questions, and do research (afalaya tadabbarun. Muslims have made great strides in a variety of philosophical and scientific domains, including astrophysics, mathematics, mechanics, music, and many more, according to their historical thought traditions (Baba, 2005). The analytical process of knowledge verification and evaluation, which is recognized as a crucial component of critical thinking, would naturally be covered by the methodological framework that concentrates on the pragmatic and logical aspects of al-yaqin. As for a Muslim, however, the definition of to seek understanding" is more closely aligned with the goal of knowing Allah. Allah has revealed several indications in His Holy Book. Allah challenges Muslims to use critical thought in His Holy Book, the Quran, with the following examples (Nordin & Surajudeen, 2015).

There are different components of critical thinking. Here is the description of few components:

Tazzakur/Conceptualization The capacity to comprehend complicated situations and come up with original answers is known as Tazzakur (Nisbett, 2015). Soft skills such as conceptual skills let a person to think critically and grasp the broader picture in complicated situations (Arseneault, 2014). Strong tadhakkur skill can help someone be very good in strategic planning, abstract concept understanding, and creative thinking. Hard skills are different skill sets that are supplemented by conceptual skills. Hard skills, usually referred to as technical skills, are the ability to perform specific operations like machine welding or software programming. Since most projects require both technical competencies and big-picture conceptual thinking, firms need team members that excel in both areas to take on large initiative. According to Imam Fakhrul Razi, people who recall and hold to the Oneness of God and use their aqal (thinking) will succeed in achieving al-falah. To reach the tadhakkur level, a person must summarize something in order to aid him in discerning its meaning. Man may therefore develop a concept of something based on a straightforward diagram or illustration. The tadhakkur can be used to topics like the Hadith and the Qur'an.

Our Lord! You have not made (all) of this for nothing! Praise be to Allah! Please deliver us from the flames' punishment. (Surah Al e Imran 3: 190–191). As a result, people will always be thankful to Allah and recognize His greatness.

Ta,qil /**Applying**. It is a skill of putting newly acquired information or ideas to use in novel or unfamiliar circumstances. Students must apply their knowledge to solve issues or deal with situations that arise in the real world. This is a succinct Bloom's Taxonomy definition of applying skills. applying theories, concepts, and principles that have been learned to novel circumstances. This entails using what has been taught to solve issues, assess circumstances, or complete activities successfully. It necessitates a deeper comprehension of the subject matter than simple memorization or comprehension, requiring the capacity to identify and choose relevant strategies or procedures for settings.



(ERI)

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It indicates that humans should comprehend things and apply this comprehension in solving their problems. Allah says in Holy Quran

. أَتَأْمُرُونَ ٱلنَّاسَ بِٱلْبِرِّ وَتَنسَوْنَ أَنفُسَكُمْ وَأَنتُمْ تَتْلُونَ ٱلْكِتَابَ ۚ أَفَلَا تَعْقِلُونَ £ ٤

Despite reading the Scripture, do you preach holiness yet not live it yourself? Are you unable to comprehend? (Surah al-Baqarah 2: 44). This indicates that the Allah Almighty places special emphasis on individuals among humanity who refuse to follow Allah's Law despite being asked to do so by others.

Tafakkur/ Analyzing The cognitive process of disassembling information into its component parts in order to comprehend its relationships, structure, and significance is known as analysis. In order to find patterns, themes, or underlying principles, this entails critically analyzing and evaluating texts, concepts, or data. Differentiation, organization, and attribute—which includes the capacity for tafakkur literally translates as to think deeply, methodically, and in detail about a subject (Rahimi, & Khamseh, 2018). Put differently, Tafakkur refers to a reflection. To become conscious of what is happening around us and to make inferences from it, reflection is an essential first step. A man's ability to distinguish between vice and virtue, good and wrong, virtue, and so on. Allah says in Holy Quran

And, it is He who formed all crops in pairs and extended the land, setting strong mountains and rivers upon it. He drapes night over day. This undoubtedly contains clues for introspective people. (Surah ar-Ra'd 13: 3)

Tafqih/ Synthesizing. The cognitive process of tafqih/ synthesizing entails the capacity to take disparate ideas, facts, or components and merge them into a fresh, coherent whole. Critical thinking, inventiveness, and the ability to recognize connections between different elements are necessary for this process. A new understanding, viewpoint, or object that did not previously exist in the same form is produced through the process of synthesizing. It's a challenging intellectual endeavour that goes beyond simple analysis to create fresh meaning or creative work, reflecting profound learning and comprehension. At this point, after differentiating between two entities, man must analyze the data.

Yes, we have assigned a great number of jinn and humans to Hell. They have eyes they cannot see, ears they cannot hear, and hearts they do not understand. They resemble cattle. They are even less directed! These people are completely careless. (Surah al-A'raf 7: 179).(Dr. Khattab). Imam al-Ghazali asserts that al-'aqal (thought) is the foundation for al-qalb (heart). He asserted that when a person wants to act morally, they will beg their mind to perceive Allah as Great. Man will recognize Good and bad, benefits and drawbacks, and aspects that are both positive and negative that relate to something.



EDUCATIONAL RESEARCH AND INNOVATION

(ERI)

e-ISSN:2710-4354 p-ISSN:2076-9660

Tadabbur/Evaluation This crucial critical thinking skill helps students become more adept at making well-informed judgements, evaluating different points of view, and defending their own opinions or solutions to issues. Development of understanding is crucial for critical thinking since, by definition, critical thinking is considering—what is understood and how it is justified. They are aware of their opinions and can defend them. Tadabbur is a term that means Learn and comprehend the entire Qur'an so that you are aware of Islamic law and trust what it says. Allah stresses that because the Qur'an originated with Allah, it is a comprehensive book. At this more advanced stage, man evaluates the concept. Allah says in Surah an-Nisa.'

Then, do they not consider the Quran? If it had come from someone other than Allah, they would have undoubtedly discovered several contradictions in it. (Surah an-Nisa' 4: 82).

Using efficient teaching strategies is essential to helping students develop critical thinking skill, especially when it comes to secondary school subject like Islamiyat in Pakistan. Our goal in this study is to find out how the modelling teaching method affects students' critical thinking skills while they learn Islamiyat. By examining existing literature and empirical studies, this research aims to elucidate the theoretical foundations and practical implications of incorporating modeling into Islamiyat education. Critical thinking is an important part of students' academic and personal growth since it is a skill that is necessary for analyzing, evaluating, and synthesizing knowledge. We want to investigate the efficacy of the modelling teaching method which prioritizes guided practice, active engagement, and demonstration in fostering students' critical thinking skills in the context of the subject Islamiyat. By means of accurate analysis and evaluation, this research aims to offer significant perspectives into the instructional methods.

1.1 Statement of the problem In the field of education, particularly in the subject of Islamiyat, the effectiveness of teaching methods in nurturing critical thinking skills among students remains a significant concern. Among various pedagogical approaches, modeling as a teaching method has gained attention for its potential to enhance students' critical thinking abilities. However, a gap exists in understanding the specific influence of modeling on critical thinking within the context of the subject Islamiyat.

1.2 Objective of the Study

To find out the effect of modeling teaching method on critical thinking skill of students in the subject Islamiyat at secondary school level.

1.3 Hypothesis of the Study

Ho₁ There is no significant effect of modeling teaching method existed on critical thinking skill of students in the subject Islamiyat at secondary school level.

Ho₂. There is no significant effect of modeling teaching method existed on Components of critical thinking skill of students in the subject Islamiyat at secondary school level.



(ERI)

e-ISSN:2710-4354 p-ISSN:2076-9660

2 LITERATURE REVIEW

The concept of education in the field of learning needs to be modified. Transferring knowledge from teacher to student is no longer the process of learning. Learning must change to reflect the current globalized world by putting 21st-century skills into practice. The process of deliberately and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating knowledge obtained from, or generated by, observation, experience, reflection, reasoning, or communication as a guide to belief and action is known as critical thinking. It is an intellectually disciplined activity. There is no such thing as knowing for knowledge's sake in Islam (Binkley,et.al 2012). By itself, knowledge is neither good nor valuable. Its merit resides in drawing humanity nearer to Allah. Two aspects of Islam are highlighted by the idea that knowledge is the way that leads to Allah. First and foremost, a Muslim's spiritual development depends on having knowledge of Islam. Furthermore, a Muslim's ability to think critically is crucial to their intellectual and spiritual development because knowledge is gained by actively challenging preconceived notions. It goes on to say that spiritual development without intellectual growth is pointless and aimless, and intellectual growth without spiritual development is pointless. Critical thinking is one of the 21st century's skills. It is necessary to investigate the idea of critical thinking via the fundamental ideas of cognition. Research indicates that critical thinking has a crucial role in instructional art success (Fong et al., 2017), as well as in the workplace in terms of efficacy and originality (Hyytinen, et., al., 2019). Since the turn of the twenty-first century, also referred to as the century of openness or globalization, civilization has undergone substantial transformation. Everyone agrees that we are currently living in the era of knowledge, which necessitates a wide range of new abilities and experience levels. Mahkru et al. (2018) refer to it as 21st century intelligence as well. The term Industrial Revolution 4.0 refers to the remarkable breakthroughs made in many fields throughout the course of this century (Ridho et al., 2020). The value of experiential and active learning methods in the classroom has gained popularity in recent years (Johnson & Tucker 2021). Islamic history abounds in examples of brilliant minds in every discipline; they were all critical thinkers with an open mind, whether they were studying astronomy, physics, medicine, psychology, mathematics, or the fine arts. As a result of their persistent questioning and probing, they became the most renowned academics both in the past and in the present. Though we are too afraid to emulate them, we still boast about them. Muslims have fostered an Islamophobic mindset in which doing research and challenging beliefs is equivalent to heresy (Kerruish, 2023). It appears that Muslims have lost the ability to respect the pursuit of knowledge. Ultimately, Muslims are suffering now because of their own ignorance. If we think that Islam is relevant to all eras, we must acknowledge that every new era will provide its own set of problems and inquiries, and that every generation will review everything from scratch—if it doesn't, it risks losing its convictions. Furthermore, each person should challenge the tenets of Islam in their quest for a deeper meaning in life. Only then would they be able to assurance in one's beliefs. Muslims have no right to restrict someone's ability to advance personally. In order to make wise decisions on their personal, civic, and global affairs, Muslims need to be capable of critical thinking. The ability to use sound judgement as a compass for living will only come from developing critical thinking skills. In Western countries, a successful



(ERI)

e-ISSN:2710-4354 p-ISSN:2076-9660

existence based on practical and utilitarian principles requires critical thinking. In its secular form, critical thinking is wholly this-worldly, pursued only for the aim of changing the world for the betterment of this life. In Islam, exercising critical thinking is a moral obligation, and one should be assessed according to one's moral value regardless of one's achievements or shortcomings in this life. Moral behavior is required of us by Allah (SWT), and He alone determines whether such behavior is successful or not. The global media landscape has become more intense and more digitally shaped. Because smartphones and ubiquitous computing have allowed digital technologies to enter our lives in a way never before possible, intensification has taken place. Importantly, computer technologies can, by means of their loyalty, anticipation, suggestion, and decision-making, on a broad scale surpass human retentional processes, in contrast to other forms of recorded memory (Aguilera, & Pandya, 2021). Teachers must adopt a critical perspective as revolutionary scholars who combine scholarly thinking and practice in the service of preparing students to be intelligent, engaged citizens if they are to be an agent of reform towards making schools public spaces (Bercaw, & Stooksberry, 2005). Breuing, (2011) argued that the scientific fields of mathematics, astronomy, navigation, modern medicine and surgery, and scientific agriculture owe a great deal to the Muslims, and it was through their influence that America was discovered and explored. In the world of the Saracens, scientists were not harassed by police or authorities, nor were they provided with government support. They established schools, and pupils flocked to them from Baghdad to Granada. They implemented pedagogies influenced by the Prophet Muhammad's methods of instruction. Modelling is one such method that has attracted a lot of interest. In education, modelling refers to the process of taking complicated ideas and occurrences and breaking them down into simpler forms that students can comprehend and relate to daily life examples. Students that use this method are more engaged and develop their critical thinking and problem-solving abilities. Students were the units of income and expenditure at educational institutions during the last several decades. The day-by-day changes that take place in every aspect of life have made our environment increasingly complex (Wengar et.al 2021). The digital revolution provides the fundamentals of this complexity (Aristotle. 2014). The wave of the digital revolution is using its scholarship to reshape educational institutions and communities (Selwyn, 2012). In this contemporary educational paradigm, fostering critical thinking skills among students is imperative for their intellectual development and capacity to navigate complex societal challenges (Badi & Tajdin, 2004). Empirical research has demonstrated the urgent necessity of integrating critical thinking instruction across the curriculum (Geertshes & Bashrey, 2019). Despite being one of the most impressive 21st century skills, critical thinking is still undervalued due to misunderstandings about what it means (Ashou & Alkhoudary, 2015) Additionally, many academics and educators believe that Islamic instruction does not incorporate critical thinking (Inda, & Sihes, 2022). In the realm of religious studies, particularly Islamiyat, where understanding and interpretations hold paramount importance, the incorporation of effective teaching methods becomes pivotal (Pithers & Soden, 2000). People who are capable of sound reasoning and decision-making are essential in a continuously changing world. Thus, a person's capacity for critical thought is essential to their success in life. (Rosnani & Soheila, 2003). Critical thinking skills have been developed and promoted by Muslim scholars throughout



(ERI)

e-ISSN:2710-4354 *p-ISSN*:2076-9660

history with great success. Islamic philosophy, which was very popular throughout the Islamic Golden Age. Eminent philosophers who focused reason, logic, and rational thought included Al-Kindi, Al-Farabi, Avicenna (Ibn Sina), and Averroes (Ibn Rushd). Their contributions paved the way for critical thinking techniques while also advancing a few academic disciplines. Smith, (2015) opined that Islamic educational pedagogies have never historically been limited to "religious" knowledge because science is viewed in the Quran as the means of recognizing and identifying the divine but was expanded to include non-religious disciplines (Al-Sharaf, 2013). Rashed, (2023) described that Islam has directed that we take advantage of its sources' knowledge viewpoint. One facet of a believer's impartiality in making decisions is steering clear of passion and emotion since they could cause him to turn off track. According to Al-Sharaf (2013) and Altunya (2014), the foundation of Islamic pedagogical view is the development of critical thinkers. One way to preserve religious values and beliefs is through education and studying the Islamic tradition (Diallo, 2012; Al-Sharaf, 2013). In fact, religion must be at the core of all education, serving as a binding agent which binds up every aspect of the curriculum into a single whole (Halstead, 2004). According to Gunther (2006), education is based on the Islamic principle of piety. He indicates that the reason for this ideal is that Allah, in the Quran, and the Prophet Muhammad, in the collections of his sayings, placed a strong focus on learning.

Critical thinking considers correctness, pursues truth, and concentrates on the source's wise point of view. No bias, stay away from fanaticism, conceit, and unreasonable ideas; stay away from suspicion and guesswork because it won't lead to the truth. (Junoh, et., al., 2023. Thus, Shah Wali Allah tried to effect change by motivating Muslims to engage in critical thinking. This is the only method for problem solving in this quickly evolving, adaptable era of the present. In addition, Shah Wali Allah detests blind tolerance and is against being confined to a classroom. He reflects carefully before forming his own conclusions and views. As a result, he pushed Muslims to conduct extensive and continual studies in the fields of al-Ouran and Hadith, which serve as the primary sources of knowledge for figh (Jalbani, 1973). Shah Wali Allah, however, did not disapprove of taklid (Imitation) in its entirety; he merely disliked taklid (Imitation)done in a thoughtless approach. Shah Wali Allah's mastery of a wide range of subjects and his critical attempts to revive Islamic thought and intelligence demonstrate his strength in critical thinking are remarkable. In this sense, he was acknowledged by a number of scholars before being named Imam, 'Allamah, 'Alim Rabbani and others, Sayyid Sabiq among them, the tahqiq of the book Hujjah Allah (Junoh, et al., 2023). Abdulhamid Abusulayman, the founding president of International Islamic University Malaysia, clearly identifies the crisis of thinking as the root of the issue in his insightful book Crisis in the Muslim Mind. He claims that if the structure of thought doesn't go through transformation, and the Muslim mind won't be able to examine stuff critically or deeply if its methods aren't changed (Farooq, 2017). Ibn Khaldun supported critical thinking as well. He criticized intellectuals for applying the wisdom of others in their writings and for merely transmitting established wisdom without challenging it considering fresh knowledge (Sonn, 2010). One such method gaining recognition for its efficacy in promoting critical thinking is modeling. Modeling is a powerful teaching method used in various subjects, including Islamic studies (Islamiyat). It involves demonstrating a concept, behavior, or skill to



(ERI)

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students, who then replicate or internalize what they have observed. Modeling as a teaching method involves demonstrating behaviors, problem-solving techniques, or thought processes to learners (Pinker, 2022). This method aims to facilitate learning by providing students with concrete examples to emulate and analyze (Thani et.al, 2020). In the context of critical thinking development, modeling can play a significant role in enhancing students' ability to evaluate information, solve problems, and make informed decisions. This review examines previous studies investigating the impact of modeling as a teaching method on the critical thinking skills of students. A study on Students' critical thinking skills in modeling-based learning conducted by (Amalia et al., 2019). This study concluded that modeling-based instruction boosted students' capacity for critical thinking. Arseneault, (2014) conducted a study called The Effects of Modeling Instruction in a High School Physics Classroom and found that the experimental group obtained higher mean score in posttest in comparison to the mean score of control group. So, he concluded that modeling as a teaching method can enhance the critical thinking skill of students in the subject physics than traditional methods of teaching. Rahimi, and Khamseh, (2018) concluded that the modelling method is relevant and effective in various environments, age groups, and for the duration of the project, which is something that should be mentioned, unless there are alternative ways that are applicable to a certain environment, age, or grade. The use of this modeling method has become increasingly significant. However, the method's scope of application is broad enough to cover all facets of life, and it can be asserted with confidence that no condition, behavior, or action is too small to be institutionalized by this method. For this reason, everyone, but especially educational authorities, should use this method to improve people's capacity for reason and intellectual independence, particularly youth, to enhance the power of analysis (Ananiadou, & Claro, 2009).

3. METHODOLOGY

The study was experimental by nature. To conduct the study, The Equivalent Material Design was adopted with single group. The material used in this study consisted of Surah-e-Al Anfal, Ayats from 1-10. Researchers developed the content-based test which was used as a data collection tool for observation1 and observation 2. The sample of the study consisted of the 50 students of 9th grade enrolled in Govt. Girls Higher Secondary School Topi. (Swabi, KPK). To apply the modeling as a teaching method, Think Aloud technique was used. A lesson plan developed by the researchers which was based on 3 levels of think aloud technique. Collected data were analyzed through SPSS version 26. Independent Sample t test and One Way ANOVA was applied to test the null hypotheses of the study.

4. RSULTS

To find out the effect of modeling teaching method on critical thinking skill of students in the subject Islamiyat, first we apply the independent sample t test to test the hypothesis of the study.

H₁. There is no significant effect of modeling teaching method existed on critical thinking skill of students in the subject Islamiyat at secondary school level.



(ERI)

e-ISSN:2710-4354 p-ISSN:2076-9660

Table 1. Effect of modelling teaching method on students' Critical Thinking Skill

		N	Mean	SD	df	t-value	Sig(p)	d
Critical Thinking	Observation 1	50	56.94	4.45	48	2.32	.002	0.4**
	Observation 2	30	59.02	4.48				0.4

N=50 **p<0.01

The results of the analysis show that the effect size, d 0.4, and t value (2.32) with df (48) were significant at **p<0.01. The data suggests that there are statically significant differences in the critical thinking skills of the respondents in observation 1 (M=56.94, SD=4.45) and observation 2 (M=59.02, SD=4.48). Thus, it was determined that using modelling as a teaching method significantly improved the respondents' critical thinking skill who were enrolled in public sector secondary school level.

H₂ There is no significant effect of modeling teaching method existed on components of critical thinking skill of students in the subject Islamiyat at secondary school level.

Table 2. One Way ANOVA for effect of Modeling on Components of Critical Thinking skill

Respondent	Sum of Squares	e df	Mean Square	F	η^2	P(sig value)	
Between Groups	108.160	1	108.160	5 A 1	0.40	0.02 *	
Within Groups	1957.800	48	19.978	5.41		0.02	
Total	265.960	49					

*p<0.05

Based on the results of table 2, it was determined that there was a significant difference in the components of critical thinking skills among the 9th grade respondents after using the modelling teaching method, with an effect size of η^2 = 0.40 and a F value of 5.41 at p<0.05. Further details can be found in table 3, where the effect of modelling on each component of critical thinking skill has determined using descriptive statistics and effect size calculations.

Table 3. Effect of Modelling Teaching Method on Critical Thinking Skill of Students (Components Wise)

Components of CT	Mean		Mean	SD.		1 00100	P-	Effect
	O1	O2	Diff.	O1	O2	SD	Value	Size d
Tazzakur /Conceptualization	10.86	12.94	2.08	1.863	2.385	2.124	0.000^{**}	0.9
Ta'qil/ Applying	11.50	11.52	0.02	1.644	1.644	1.65	1.00	



EDUCATIONAL RESEARCH AND INNOVATION

(ERI)

e-ISSN:2710-4354 p-ISSN:2076-9660

Tafakkur/ Analyzing	11.86	11.89	0.03	1.786	1.789	1.78	1.00	
Tafqih/ Synthesizing	11.64	11.64	0.00	1.770	1.770	1.77	1.00	
Tadabur/ Evaluation	11.08	11.10	0.02	2.193	2.194	2.19	1.00	

N=50 **P<0.01, P>0.05

According to table 3 the effect size (0.9) of the component Tazzakur/Conceptualization determines the magnitude of effect of modelling which is more than 0.8. The components Ta'qil/Applying, Tafakkur/Analyzing, Tafqih/Synthesizing, and Tadabur/Evaluation do not differ statically between Observations 1 (O1) and 2 (O2). Therefore, effect sizes for these components were not computed. It is concluded that using modelling as a teaching method improved the Tazzakur/Conceptualization skill of students enrolled in public sector secondary schools.

5. Discussion

The main purpose of the study in hand was to find out the effect of modeling teaching method on critical thinking skill of students in the subject Islamiyat. The results revealed that Pakistani students are interested in critical thinking in Islam and its teaching. Application of modelling as a teaching method with the help of think aloud technique enhance the critical thinking skill of students in Islamiyat. Furthermore, component Tazzakur/conceptualization empowered by the application of modelling teaching method. These results are in line with the results of previous studies conducted by (Bati, & Kaptan, 2015; Tedesco-Schneck 2021; Abd Rahim et al, 2019) The result of these studies is that application of an innovative teaching method is the source of development of conducive environment for learning. Muslims believe in Quran dogmatically. A conducive and fearless environment can foster critical thinking skill in the subject Islamiyat (Thani,et.al, 2020). However, critical thinking requires time, practice, and experience just like any other skill. Students may first find it challenging to react to instructional questioning techniques about Islam and its beliefs. Teacher can skillfully handle the situation and motivate the students. Abou, (2001) warns against the peril of a fundamentalist attitude, saying that Muslim puritan movements can denigrate women, destroy critical thinking, and empty Islam of its meaning by claiming to be the real soldiers of God and the defenders of religion and its ethical implications. There is a growing recognition and demand in Muslim academics and society at large for the integration of critical thinking to create a critical teaching method.

5. Conclusion

It is concluded by the findings of study at hand that modelling as a teaching method significantly improved the 9th grade students' critical thinking skill in the subject Islamiyat who were enrolled in public sector secondary school. Moreover, the analysis of data reflected that modelling as a teaching method significantly improved the components critical thinking skill of students of 9th grade in the subject Islamiyat who were enrolled in public sector secondary school. It is also concluded that using modelling as a teaching method has improved, he



EDUCATIONAL RESEARCH AND INNOVATION

(ERI)

e-ISSN:2710-4354 p-ISSN:2076-9660

Tazzakur/Conceptualization skill of 9th grade students enrolled in public sector secondary schools. Some conclusions for improving the critical thinking skill of students were made by this study, including the introduction of a distinct critical thinking course in higher education. Lecture method include skill-centered learning, group projects, and storytelling. When critical thinking is incorporated into one or more lesson development processes, students' thinking is enhanced. Additionally, the right textbook to improve critical thinking instruction. It is crucial to teach critical thinking skills to enhance pupils' academic performance.

6. Recommendations

The effect of modelling as a teaching method on secondary school students' critical thinking in the subject Islamiyat can be studied to get important insights into pedagogical strategies that work in this setting. For carrying out such a study, consider the following suggestions:

- 1. For understanding of this study, it is recommended to compare the results of students receiving modeling-based instructions with those receiving traditional instruction, by utilizing a quasi-experimental design that includes pre- and post-test measures as well as a control group.
- 2. Similar research must be conducted with a representative sample of secondary school students that is diverse in terms of gender, academic standing, and socioeconomic status. Get participants' and their guardians' informed consent, and make sure ethical issues are taken care of during the research.
- 3. A positive and conducive environment to enhance critical thinking skill among students may be created in the classroom for the subject Islamiyat using innovative teaching methods.
- 4. In order to improve students' achievement and attitudes towards critical thinking skill in the subject of Islamiyat, policy makers may concentrate not only on the physical learning environment as well as on the interpersonal learning environment, which is overlooking in Pakistan's national education policy.
- 5. The training wing of Pakistan Education Department may train the teachers in critical thinking skills so that they can develop positive critical thinking skills in students.

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