Effect Of Metacognitive Think-Aloud Strategy On Secondary School Students' Ideological Basis Of Pakistan: An Experimental Study

Dr. Azmat Farooq Ahmad Khurram[1] , Nazish Andleeb[2] , Naila Ramzan[3] , Nighat Ahsan[4]

[1]Assistant Professor, Khwaja Fareed University of Engineering & Technology, Rahimyar Khan, Pakistan , (iD) 0000-0002-3701-6618

[2]Lecturer, Department of History, University of Gujrat, Pakistan.

[3,4]Ph.D Scholar, University of Engineering & Technology, Rahimyar Khan, Pakistan.

Abstract

The think-aloud is a teaching-learning instructional strategy that requires learners to say aloud what they think about during learning and other cognitive tasks. It enhances classroom discourse. Pakistani teaching-learning process is suffering from challenges in grasping the ideology of Pakistan and national trends. This quantitative and experimental research was conducted to examine the usefulness of metacognitive think-aloud on secondary school students' Ideological Basis of Pakistan. A sample population of sixty-four (64) secondary school students from a public secondary school participated. The sample population was randomly divided into two groups. One group was taught Pakistan Studies as a subject through the traditional chalk and talk method whereas the other group was taught through metacognitive think-aloud. The post-test control group design was employed to collect the quantitative data through the Think Aloud technique. The data were processed by SPSS software-25. An independent sampled t-test was used to find the effect of metacognitive think-aloud on secondary school students' Ideological Basis of Pakistan. The data analysis showed that metacognitive think-aloud remained significant with t-value = 5.72 and df = 62 while $p = .000 < \alpha = .001$ as compared to the traditional method. It is suggested that metacognitive think-aloud be employed to grab students' attention. It may open new doors and inspire a desire among learners to live their brains in the unexplored. The learners may better understand the disintegration of the sub-continent and the emergence of a new independent state.

Keywords: Metacognitive Think-Aloud; Pakistan Studies, Ideological Basis of Pakistan.

INTRODUCTION

The ideological basis of Pakistan encompasses the major elements, significance, and sources of ideology and the origin and evolution of the two-nation theory (Ghazi et al., 2011). The inclusion of Pakistan Studies as a compulsory subject intended to teach nationalism, national attachment, national ideology, and national pride among the new generations. Secondary school students in Pakistan are taught Pakistan Studies as a compulsory subject in 9th grade. A fifty (50) marks paper is conducted through the concerned Board of Intermediate and Secondary Education (BISE). Khurram (2020) reported that most learners in the programs have a rudimentary awareness of Pakistan since most students and teachers focus their efforts on getting good grades in exams.

Secondary school students are being taught the subject of Pakistan Studies traditionally. However, diverse pedagogies are cited in the literature. One of them is teaching through metacognitive Think-Aloud, which provides discourse between the teacher and the learner. In the think-aloud approach, participants think aloud while doing a particular task or immediately remember ideas after completion. Metacognitive think-aloud helps enhance students' cognition (Alfiansyah, 2021). Similarly, Mockel (2013) reported that think-aloud enhances learners' ability to read and understand the content curriculum and improves retention and lifelong learning. Further, Yusuf et al. (2018) indicated that metacognitive think-aloud enhances comprehension among learners and portrays a gap between the ideal situation and the existing situation.

Institutions are vital in forming a nation's character, and educational curricula play an essential role in this formation (Ashraf, 2018). However, Pakistani institutes are not performing their appropriate function in it. Pakistani students face problems in learning Pakistan's ideology (Haqqani, & Ahmad, 2018)) since there are multiple pieces of literature against this ideology available in electronic publishing. Anti-Pakistan thoughts and the 5th generation war is at their peak. The young generation is facing problems in aligning themselves with the national trend. Centre for Pakistan Studies is functioning in different zones of India to de-track Pakistani young minds from nationalism and ideology of Pakistan. Therefore it was felt the need for the ideology of Pakistan to be taught with new instructional techniques.

Figure 1

The gap between the Ideal and Existing Situation
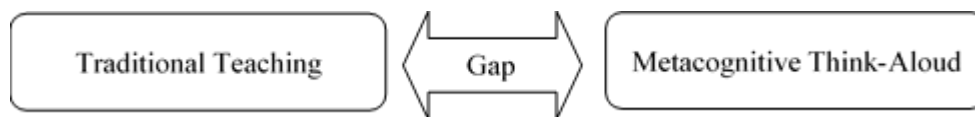
This alarming situation indicated a revisit of pedagogy for Pakistan Studies. Therefore, secondary school students were taught the concept of Pakistan's ideological basis through metacognitive think-aloud. The effect of teaching through metacognitive think-aloud was measured quantitatively.

Literature Review

The Greek words "ideo" and "logos" combine to form the term "ideology." As per the Merriam-Webster Dictionary, the term "ideology" literally translates to "the science of thoughts" or "the review of thoughts." The ideology unites the majority of the people, and its philosophy must be in line with the nation's thoughts, emotions, customs, views, and values. Similarly, an evolutionary process shaped the ideology of Pakistan. The basis was built by historical experience; Allama Iqbal provided a philosophical explanation; Quaid-e-Azam made it a political reality; and the Constituent Assembly of Pakistan granted legislative legitimacy in March 1949, bypassing the Objectives Resolution. (Qurban & Amin, 2019). It resulted from Muslims' realization that they demanded separate electorates in South Asia to distinguish themselves from Hindus. However, they changed their demand for an independent country after realizing that their prospect of a Hindu governed India was jeopardized (Haider, 2013).

Ahmad et al. (2020) reported that Pakistan maintains the Hindu society's individuality through the South Asian Muslim Community. The Muslims believed Islam and Hinduism to be two social orders producing two distinct cultures and not only two religions. The two of them are incompatible. A comprehensive analysis of this country's past shows that the variance between two significant inhabitants (Hindus & Muslims) is also evident through two social orders, not confined to the fight for political supremacy (Das et al., 2020). They continue to create new civilizations and customs, despite living together for over a thousand years. They are all separated from their eating habits, music, architecture, and the script. The Muslim nationhood was not based on a country's territories, races, languages, or ethnicity but instead on Islam because it has its place to the identical belief. They called for the zones where they were in bulk to form a self-governing state where they could organize their lives in conformity with Quran's and Sunna's teachings (PBUH). Pakistan was created exclusively for Islam because it was based on an ideology that founded its origins in the Islamic faith (Rauf, 2020). Thus, "Pakistan Ka Matlab Kiya, La Illa Ha Ill Allah" became a well-known slogan in each tongue and became the core of the freedom movement (Mirza, 2009).

Pakistani students read Pakistan Studies and related syllabus from grade one until graduation (Mubarak, 2019). The main focus of its initiation was to provide an ideological basis of Pakistan and nationalism in terms of national attachment and national pride. One of the curriculum books is Pakistan Studies taught to the students enrolled in secondary schools of Punjab in grade 9 and designed by the Punjab Curriculum and Textbook Board, Punjab (Ghazi et al., 2011). In comparison, the Ideological Basis of Pakistan is the main unit of the textbook offered in grade 9 in Punjab Province, Pakistan. Hence, the selected content was adopted from this textbook.

Metacognition is a collection of processes that a person employs to effectively keep track of ongoing cognition to regulate own actions (Rhodes, 2019). Metacognition improves metacognitive abilities among students (Khurram, 2020), further enhancing their academic achievements (Perry et al., 2019). Metacognitive Self-Consciousness, Self-Regulation, and Cognitive Strategy Use are the fundamental metacognitive abilities that were developed using metacognitive instructional strategies (Khurram et al., 2020). Self-regulation is proactive (Veenman, 2016) and enhances

performance (Malone, 2017). Planning, monitoring, and evaluation are sub-components of Self-regulation (Stephanou & Mpiontini, 2017). Cognitive Strategy Use refers to how students use strategies to learn (Wagaba, 2013), including rehearsal, elaboration, and organizational strategies. Khurram et al. (2020) reported that Cognitive Self-Consciousness pertains to the awareness and monitoring of the personal thoughts of the learners towards the cognition of the content. It enhances effort convergence and gears up the learning process.

Metacognitive Think-Aloud is used as an instructional strategy and evaluates cognition (Farr & Conner, 2004); Gold & Gibson, 2001). It helps learners how to track learning and how to read and understand. It helps them re-read the content, read it ahead, and/or find contextual hints about reading. Students are asked to express their views about the learned content, followed by cross-questions as an evaluation. This process helps the learners to monitor their cognition of the content (Wilhelm, 2001). Metacognitive Think Aloud Checklist also helps minimize the threat of validity and reliability and makes the evaluation more objective. This checklist encompasses predicting, questioning, visualizing, concept mapping, clarifying, summarizing, reflecting, and making connections (i.e., personal connections and text-to-text connections). Khurram (2021) reported that Metacognitive Think-Aloud was used by Michalsky (2013) to measure metacognition. Similarly, it is used to measure cognition in terms of learning and teaching (Zhang & Zhang, 2020). Thus, Metacognitive Think-Aloud was used as a metacognitive instructional strategy and evaluated the comprehension of the ideological basis of Pakistan while teaching Pakistan studies to secondary school students enrolled in public schools of Punjab province, Pakistan.

The objective of the Study

The study's main objective was to determine the effectiveness of metacognitive think-aloud on secondary school students' ideological basis of Pakistan.

Research Questions of the Study

Following research questions were used to achieve the objectives of the study:

RQ1: Is there any difference in metacognitive Think-Aloud on secondary school students' cognition of major sources of Pakistan ideology

RQ2: Is there any difference in metacognitive Think-Aloud on secondary school students' cognition of elements of the ideology of Pakistan.

RQ3: Is there any difference in metacognitive Think-Aloud on secondary school students' cognition of the two-nation theory.

RQ4: Is there any difference in metacognitive Think-Aloud on secondary school students' cognition of the ideological basis of Pakistan.

Methodology

This study was experimental and quantitative. A post-test control group was the research study design employed on sixty-four (64) secondary school students enrolled in a public school. The students were randomly distributed among two groups, namely the treatment group and the control group.

Figure 2

Design of the Study
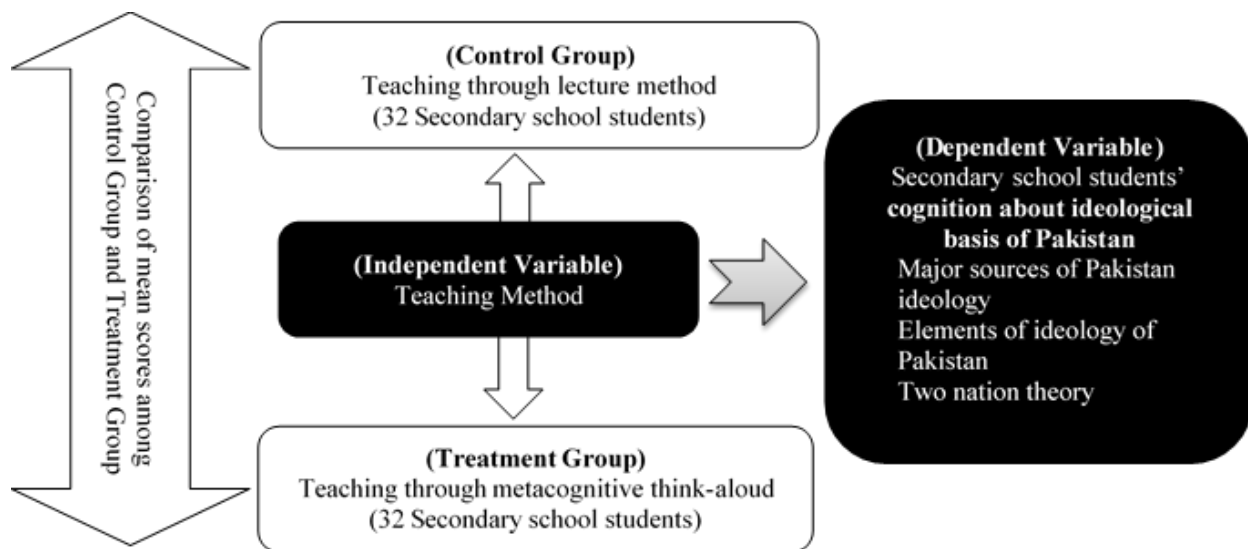
The Control group was taught with chalk & talk and lecture method, whereas the treatment group was taught using Metacognitive Think Aloud (Veenman, 2016). The teaching method was the independent variable (IV), whereas secondary school students' cognition of the ideological basis of Pakistan was the dependent variable (DV). The principal investigator was an expert in metacognition and employed Metacognitive Think-Aloud as a teaching method for the treatment group. In contrast, the traditional teaching method was used in the control group. Both the groups were taught for four weeks.

Secondary school students' cognition of the ideological basis of Pakistan in terms of major sources of Pakistan ideology, elements of the ideology of Pakistan, and the two-nation theory were determined by using the Think-Aloud method as the post-test. Thus a comparison between the mean score was obtained through the Think-Aloud method.

RESULTS

Table 1 Results of t-test and Descriptive Statistics for secondary school students' cognition of ideological basis of Pakistan

	Groups	N	M	SD	df	t-value	Sig.

Major sources of Pakistan ideology	Control Group	32	9.4	3.3	62	7.55	0.000
	Treatment Group	32	13.5	3.0			
Elements of ideology of Pakistan	Control Group	32	10.2	3.4	62	7.45	0.000
	Treatment Group	32	14.3	2.9			
Two nation theory	Control Group	32	10.5	3.3	62	8.01	0.000
	Treatment Group	32	16.8	3.0			
Ideological basis of Pakistan	Control Group	32	9.8	3.4	62	5.72	0.000
	Treatment Group	32	15.5	3.0			

* $p < .001$, M =Mean and SD = Standard Deviation

The analysis of the table indicates that all null hypotheses were rejected and established the significance of the use of metacognitive think-aloud.

Null Hypothesis (H_{01})

The analysis of the above-referred table indicates that the first null hypothesis stating that there is no significant effect of metacognitive Think-Aloud on secondary school students' cognition about major sources of Pakistan ideology" was rejected on t-value = 7.55 and df = 62. It was found to significant as $p = .000 < \alpha = .001$. Hence, there is a significant difference in the mean score on secondary school students' cognition of major sources of Pakistan ideology taught through the traditional method and metacognitive think-aloud.

Figure 3 Response of Secondary School Students on cognition about major sources of Pakistan ideology
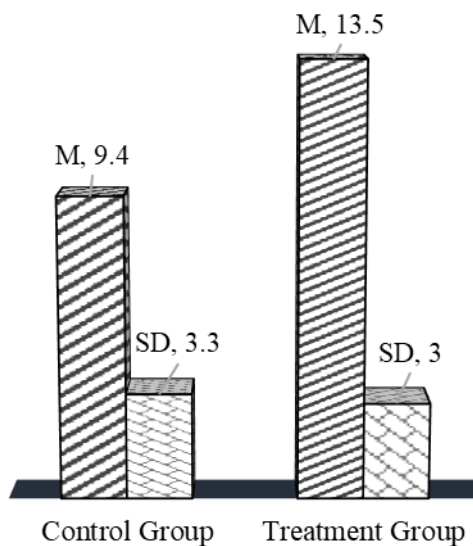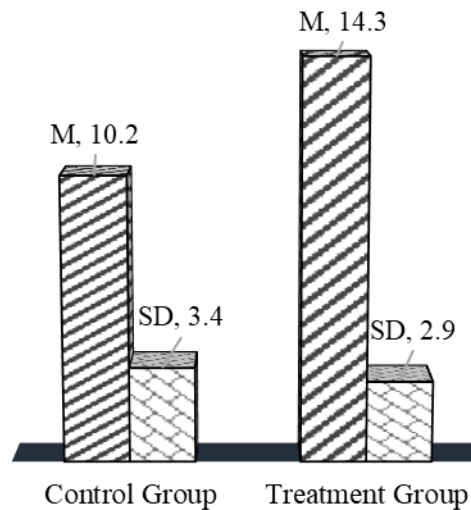
http://www.webology.org

Figure 3 shows how secondary school students from both groups behaved differently to the two instructional techniques, i.e., metacognitive Think-Aloud and the traditional method. This figure further represents that metacognitive think-aloud (M = 13.5; SD = 3.0) was better than the traditional teaching method (M = 9.4; SD = 3.3) on secondary school students' cognition about major sources of Pakistan ideology.
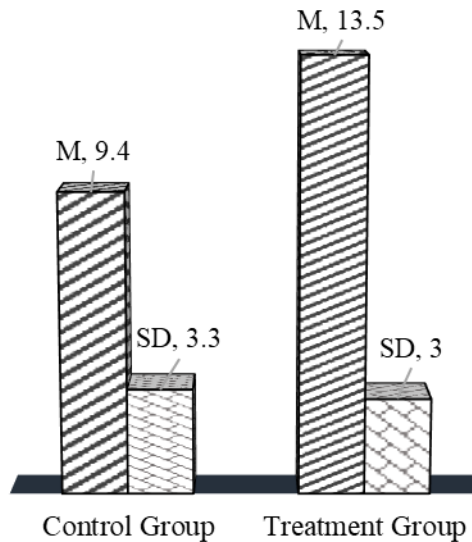
Null Hypothesis (H₀₂)

The analysis of table-1 further indicates that the second null hypothesis stating that there is no significant effect of metacognitive Think-Aloud on secondary school students' cognition about elements of the ideology of Pakistan was also rejected on t-value = 7.45 df = 62. It was found to significant as p = .000 < α = .001. Hence, there is a significant difference in the mean score of secondary school students' cognition of elements of the ideology of Pakistan taught through the traditional method and metacognitive think-aloud.

Figure 4 Response of Secondary School Students' Cognition about Elements of Ideology of

Pakistan

The figure-4 shows how secondary school students from both groups behaved differently to the two instructional techniques, i.e., metacognitive Think-Aloud and the traditional method. This figure further represents that metacognitive think-aloud (M = 14.3; SD = 2.9) was better than the traditional teaching method (M = 10.2; SD = 3.4) on secondary school students' cognition about elements of the ideology of Pakistan.

Null Hypothesis (H$_{03}$)

The table analysis also indicates that the third null hypothesis stating that there is no significant effect of metacognitive Think-Aloud on secondary school students' cognition of the two-nation theory, was rejected because t-value = 8.01 with df = 62. It was found significant as p = .000 < α = .001. Hence, there is a significant difference in the mean score of secondary school students' cognition of the two-nation theory taught through the traditional and metacognitive think-aloud.

Figure 5 Response of Secondary School Students' Cognition of the Two-Nation Theory
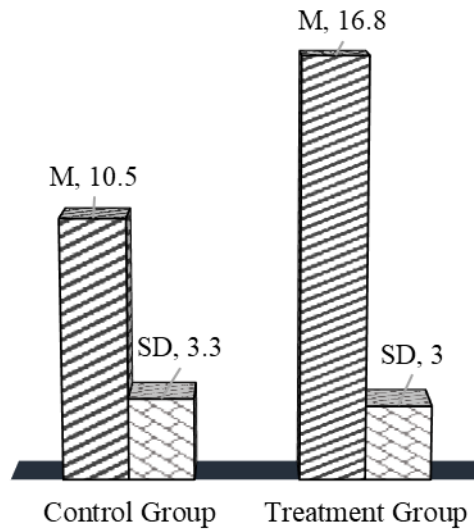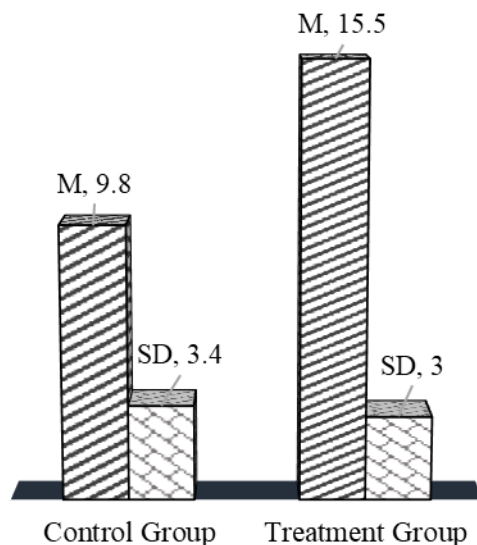
Figure-5 shows how secondary school students from both groups behaved differently to the two instructional techniques, i.e., metacognitive Think-Aloud and the traditional method. This figure further represents that metacognitive think-aloud (M = 16.8; SD = 3.0) was better than the traditional teaching method (M = 10.5; SD = 3.3) on secondary school students' cognition of the two-nation theory.

Null Hypothesis (H_{04})

The analysis of table-1 indicates that the null hypothesis stating that there is no significant effect of metacognitive Think-Aloud on secondary school students' cognition about the ideological basis of Pakistan was rejected because t-value = 5.72 with df = 62. It was found significant as p = .000 < α = .001. Hence, there is a significant difference in mean score on secondary school students' cognition of the ideological basis of Pakistan taught through the traditional method and metacognitive think-aloud.

Figure 6 Response of Secondary School Students' Cognition of the Ideological Basis of

Pakistan

Figure-6 shows how secondary school students from both groups behaved differently to the two instructional techniques, i.e., metacognitive Think-Aloud and the traditional method. This figure further represents that metacognitive think-aloud (M = 16.8; SD = 3.0) was better than the traditional teaching method (M = 10.5; SD = 3.3) on secondary school students' cognition of the ideological basis of Pakistan.

Discussion, Conclusion, and Recommendation

For teaching Pakistan studies, this study found that metacognitive Think-Aloud plays a significant role in secondary school students' cognition of the ideological basis of Pakistan in terms of major sources of Pakistan ideology, elements of the ideology of Pakistan, and two-nation theory. Therefore, the use of metacognitive Think-Aloud as a teaching method is recommended for learning Pakistan Studies. It may also enable them to use metacognition for the self-learning process. Resultantly, the teaching-learning process standard may be improved.

Furthermore, this research found that if Pakistan Studies was taught metacognitively, it might garner attention at all levels of learning. It may provide knowledge on the subcontinent, Asia and its voyages from the past to the present, as well as the establishment of Pakistan. Researchers may be able to compare previous and contemporary events and find differences between the two eras as a result of this investigation. It was decided that students might learn about Pakistan's ideological foundations and then use these ideas when studying about Pakistan. Because it may raise interest in knowing Pakistan and open new doors for students, metacognitive think-aloud can be used to focus on both teaching and learning. It can also boost students' willingness to remain in uncovered and discovered seas of Pakistan information.

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