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Cognitive Self-Consciousness for Pakistan Studies:
A Metacognitive Pedagogy

Abstract

This experimental research examined the usefulness of metacognitive pedagogy on Cognitive Self-Consciousness for Pakistan Studies. A sample of twenty-nine prospective teachers from a distant learning university participated in this study. One-group pretest-posttest design was used due to the small sample size and impracticality of randomization. Primarily, the cooperative teachers were given the training to use metacognitive pedagogy for two weeks, and then they implemented it in the class for six weeks. Qualitative data was collected by Think Aloud method; SPSS software (version 24) was used for calculation; and, one-group t-test was used to find its effect. The main result of the study concluded that metacognitive pedagogy remained significant. It is recommended that the use of metacognitive pedagogy may lead to drawing the attention of students, open the new doors and create willingness among the learners to dwell their minds to stay in the undiscovered and discovered oceans of knowledge about Pakistan.

Keywords: Metacognitive pedagogy; Cognitive Self-Consciousness

Introduction

Pakistan Studies is being taught as a compulsory subject from Secondary to University level. Pakistan Studies provides systematic content, including economics, sociology, social science, history, geography, foreign policy, and political science. In Pakistan, Professional development of teachers is leaping into the future; but Pakistan Studies seems to be neglected. Higher education Commission has revised the curriculum of Pakistan studies to enhance the content knowledge and teaching skills of prospective teachers. The main aim of this curriculum was to comprehend society, culture, religious affairs, information handling, concept mapping, social responsibilities, justice, and good citizenship. Effective teacher education at the university level is the need of the day.

Multiple organizations at national and international levels are dedicated to the teaching-learning process, discussion and debate platforms, and research in Pakistan Studies, but most of the students still show a low level of information about basic knowledge, about different statistics, history, and other pertaining facts. Therefore, a revisit of pedagogy for Pakistan studies seems compulsory.

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Metacognition is the second-level mental operation (Yong, Gates & Chan, 2019). Metacognition was introduced by Flavell (1979); refers to as knowledge about cognition and thinking (Dori, Mevarech & Baker, 2018). Metacognition is an agent that supervises and governs the cognitive system (Ko & Leu, 2016; Escolano-Pérez, Herrero-Nivela & Anguera, 2019); a long-lasting and in-depth way of learning (Dutke, Barenberg & Leopold, 2010); and, a set of self-instructions for task-performance through cognition development (Veenman, 2016). It is a merger of two Greek words "meta" and "cognition." "Meta" means "about" and "Cognition" means "thinking" (Flavell, 1979; Kolencik & Hillwig, 2011). It refers to the knowledge about cognitive thinking and its regulation (Dutke, Barenberg & Leopold, 2010).

It promotes a conceptual explanation (Kramarski, 2008), and enables learners to use metacognitive pedagogy for learning (Wagaba, 2013). Literature indicates various components of metacognition (Furnes & Norman, 2015). Dori, Mevarech & Baker (2018) concluded that metacognition is a set of abilities that enable learners to comprehend and control their cognitive processes in terms of what they know about their knowledge and ability to control their learning. Metacognition has two key components, i.e., "knowledge of cognition" and "regulation of cognition" (Magno, 2010; Wilson & Bai, 2010); and should be assessed all together as metacognition theory proposes (Ozturk, 2017).

Cognitive Self-Consciousness (CSC) is one of the significant Metacognitive Abilities that affect the performance (Wagaba, 2016); a significant factor for teachers' professional development (Petanova & Stoyanova, 2016). Cognitive Self-Consciousness (CSC) refers to as aware and monitor the personal thoughts (Cho, Jahng & Chai, 2012; Dannahy & Stopa, 2007; Kikul, Vetter, Lincoln & Exner, 2011; Valiente, Prados, Gómez & Fuentenebro, 2012; Palmier-Claus, Dunn, Taylor, Morrison & Lewis, 2013; Quattropani, Lenzo, Mucciardi & Toffle, 2014; Koch & Exner, 2015; Prouvost, Calamari & Woodard, 2016) of students when they are engaged in the learning process (Wagaba, 2013); ability to focus on and to be aware of the cognitive processes (Koch & Exner, 2015). Cognitive self-consciousness (CSC) helps in decision making (Hosseini & Khayyer, 2009); highly correlated with examination activities (Spada, Nikcevic, Moneta & Ireson, 2006); improves effort convergence, self-esteem and self-efficacy; expedites learning process; and, enables the learners to complete the tasks (Leutwyler, 2009).

Group Discussion

Group discussion provides an opportunity to present shared knowledge and ideas; a better understanding of content; stimulates the Verbal thinking (Wagaba et al., 2016); and, helps to understand the content (Brookfield & Preskill, 2012). Teacher supported discussions among students provide opportunities to stimulate their cognitive process (Danish & Saleh, 2015). Cognitive processing may not be developed in students without providing them opportunities to interact (Larkin, 2006). Prospective teachers were allowed to discuss their thoughts in groups.

Think Aloud Method (TA)

The think-aloud is used for in-depth understanding (Fisher, Frey & Lapp, 2011; Coiro, 2011); learning behavior, the effectiveness of instruction, motivation and engagement, metacognitive awareness, use of cognitive strategies, and extent of learners' metacognition (Sprainger, Sandral & Ferrari, 2011). During the think-aloud, subjects were allowed to speak whatever crosses in their mind during the learning/task performance (Jääskeläinen, 2010). The teacher/rater observed and noted the awareness and monitoring of thoughts about Pakistan studies by using a checklist of 1 to 5 scoring range. The check-list was designed for on-sight measurement of Cognitive Self-Consciousness (CSC) and to cope with the threat of validity (Veenman, 2011) through expert opinion.

Research intended to prove that the use of Metacognitive pedagogy on prospective teachers may show significantly different results on Cognitive Self-Consciousness for the teaching of Pakistan Studies. This study was conducted by assuming that replacing the traditional teaching method with Metacognitive pedagogy for the teaching of Pakistan studies may get attention and enable prospective teachers to enhance the teaching-learning process. Prospective Teachers may be able to use metacognitive pedagogy for their teaching, and it may be beneficial for the improvement in their Cognitive Self-Consciousness for the teaching of Pakistan Studies.

The objective of the Study

The prime objective of this study was to determine the usefulness of metacognitive pedagogy on prospective teachers' Cognitive Self-Consciousness for Pakistan Studies.

Hypotheses of the Study

The null hypotheses to achieve the objectives of the study were as follows:

H_{01}. There is no significant effect of metacognitive pedagogy on prospective teachers' awareness of thoughts for Pakistan Studies.

H_{02}. There is no significant effect of metacognitive pedagogy on prospective teachers' monitoring of thoughts for Pakistan Studies.
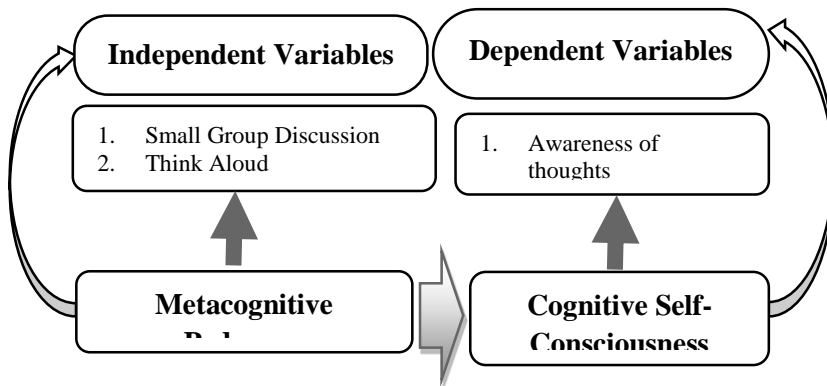
H_{03}. There is no significant effect of metacognitive pedagogy on prospective teachers' Cognitive Self-Consciousness for Pakistan Studies.
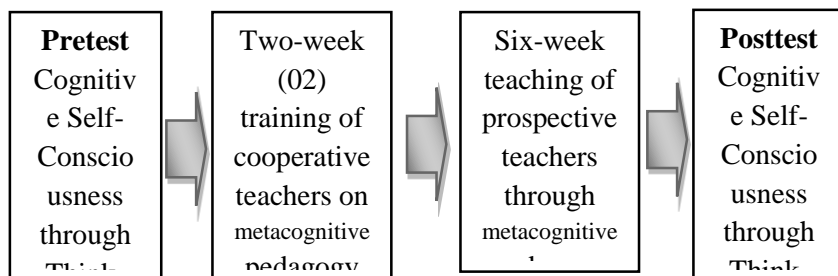
Methodology

This study is experimental and quantitative in nature.

One-group-pretest-posttest design was used due to the small sample size and impracticality of randomization. Small-Group Discussion (Danish & Saleh, 2015; Wagaba et al., 2016) and Think Aloud (Veenman, 2016) metacognitive Strategies were employed in this study because of their appropriateness for classroom pedagogy. Metacognitive pedagogy was the independent variable (IV), whereas prospective teachers' Cognitive Self-Consciousness for Pakistan Studies was the dependent variable (DV).

Primarily, the cooperative teachers were given the training to use metacognitive instructional strategies for two weeks, and then they implemented it in their class for six weeks.

This experimental study prolonged for eight (8) weeks. Twenty-nine (29) prospective teachers were the participants of the study, selected from an international distant learning university in Pakistan, and their willingness was sought through the management, accordingly.

Cognitive Self-Consciousness of the prospective teachers was determined by using the Think-Aloud method before and after the class intervention of metacognitive pedagogy as Pre-test and Post-test, respectively.

RESULTS
Results of t-test and Descriptive Statistics for Prospective teachers Cognitive Self-Conscious

			N	M	SD	df	t	Sig.
Awareness of thoughts	Before the experiment		29	10.41	3.2	28	8.660	0.000
	After the experiment		29	17.56	3.6	28		
Monitoring of thoughts	Before the experiment		29	11.38	3.0	28	8.458	0.000
	After the experiment		29	19.87	3.2	28		

Cognitive Self-Conscious	Before the experiment		29	10.50	3.1	28	7.560	0.000
	After the experiment		29	18.96	3.4	28		

* p < .01. M =Mean and SD = Standard Deviation

Table indicates paired samples t-test and illustrated a statistically significant difference in Cognitive Self-Conscious of prospective teachers with the use of metacognitive pedagogy (M = 18.96, SD = 3.4) as compared to the stage prior to the use of metacognitive pedagogy (M =10.50, SD = 3.1), t (28) = 7.560, p <. 01. The eta squared statistic (.67) indicated a large effect size. There was statistically significant difference in awareness of thoughts of prospective teachers about Pakistan studies was observed with the use of metacognitive pedagogy (M = 17.56, SD = 3.2) as compared to the stage prior to the use of metacognitive pedagogy (M =10.47, SD = 3.6), t (28) = 8.660, p <. 01. Similarly, statistically significant difference in monitoring of thoughts of prospective teachers about Pakistan studies was observed with the use of metacognitive pedagogy (M = 19.87, SD = 3.2) as compared to the stage prior to the use of metacognitive pedagogy (M =11.38, SD = 3.0), t (28) = 8.458, p <. 01. These results recommend that when metacognitive pedagogy is used as classroom instruction, Cognitive Self-Conscious is significantly increased.

Discussion

This study purposed for the teaching of Pakistan Studies concluded that metacognitive pedagogy plays a significant effect on prospective teachers' Cognitive Self-Consciousness. It is recommended that the use of metacognitive pedagogy may be used at all stages of the learning for the teaching of Pakistan Studies, and it may enable prospective teachers to use metacognition for their self-learning also. Resultantly, the standard of the teaching-learning process will be improved. This study concluded that Pakistan Studies as a subject might get attention at all levels of learning. It may provide information about the socio-economic status and historical background of the subcontinent, journey of the Muslims from past to present, division of the region, the emergence of Pakistan, and problems faced by the novice country. This study may open multiple doors for the researchers to allow comparing past and present situations and may find the difference among both eras.

This study concluded that the learners might be made aware of their thoughts about Pakistan and then to monitor these thoughts while learning about Pakistan. Metacognitive pedagogy may be developed among the teachers as well as learners since it may enhance interest in understanding Pakistan Studies and may open the new doors to learners and create willingness among the learners to dwell their minds to stay in the undiscovered and discovered oceans of knowledge about Pakistan.

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