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A Systematic Review on Islamic Education Teachers in Practicing Higher Order Thinking Skills in Malaysia

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Abstract

Pupils' achievement in mastering High Order Thinking Skills (HOTS) are related to the teacher's teaching practices. This article will disclose relevant themes on systematic teaching of Islamic education teachers in implementing HOTS. Meticulous observation was carried out through two databases namely the Google Scholar and Dimension. Review method was based on Preferred Reporting Items for systematic Review and Meta analysis (PRISMA). The selection was based on certain criteria such as language, area of study, time frame, research focus, two related themes of previous researches involving HOTS practices. The first theme were the practices at the teaching levels that covered planning, starter, teaching developments, closure and practicing in general. The second theme covered component of practice which involved knowledge, teaching methods, values and teaching aids. This research paper will contribute findings from the empirical aspect. Systematic reviews will give clear information to future researchers on research focus as well as themes being studied by the previous ones.

Keywords: Teaching Practices, Higher Order Thinking Skills (HOTS), Islamic Education

Introduction

Malaysian Education Blueprint (MEB) 2013- 2025 was launched to visualize the goals to put Malaysia at the same level as any developed countries. There are six skills being stressed on in MEB namely as knowledge, thinking skills, leadership, dual languages, ethics and spiritual and national identity (MOE, 2013). Higher Order Thinking Skills (HOTS) will enable pupils to use their minds in evaluating ideas, reviewing the accuracy, and making a rational judgment based on logical evidence towards certain matters (Nor et al., 2015). HOTS, according to the Bloom Taxonomy Revised Edition involve all levels of analysis, evaluation and creation (Zohar & Dori, 2003). HOTS are also being taught in all subjects including Islamic Education to enable pupils to compete globally.

Teachers' teaching practices do influence the effectiveness in education (Tamuri & Nor, 2015). Nonetheless, the previous research by Higher Education Leadership Academy (HELA) in the year 2011, found that 12% of teachers' teaching in Malaysia were of a high standard, 38% were at intermediate and 50% of the teaching practices were not satisfactory. Research findings showed that teachers did not pay attention to HOTS but were more focused on understanding the learning contents. Pupils were tested on how well they could re-memorize facts which involved 70% of the data collected compared to 18% who practiced analyzing and interpreting data and 15% synthesized information. The teaching pattern was done more passively and only 50% of the teachings were conducted effectively (MOE, 2013). The tendency to apply teacher centred teachings caused the pupils to lose interest in learning (Zakaria, Mahalle & Nawi, 2015). This research is crucial to be executed because the pupils' achievement to master HOTS relies on teachers' teaching practices. Previous researches which were related to systematic reviews have not been done widely. The systematic review was done towards the current article according to the main research question which is, What are the teaching practices of Islamic education teachers in Malaysia? The main focus of the study was on the teaching practice of HOTS.

The Need for a Systematic Research

Mallet et al. (2012) explained that systematic researches began in 1970's in the medical field. Systematic Literature Review (SLR) was carried out due to certain beneficial criteria it has compared to the traditional review. Tranfield, Denyer and Smart (2003) agreed that SLR review was done by collecting and synthesizing the previous researches systematically. SLR is believed to ensure a more accurate methodology which could lessen the risk of bias by following strict protocol procedure. This is different from the traditional literature review which is normally not done systematically.

Research Methodology

This section will discuss the methodology used to select the Islamic Education Teachers' teaching practices article.

PRISMA

PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) is a systematic literature review approach being used to carry out the review process systematically.

Research Sources

The two databases used in this research were Google Scholar (GS) and Dimension. ai. GS was chosen because this academic browser engine has 2- 100 million catalogs of academic literature and articles which have not been published officially by the academic publishers. GS collects the search input from all over the internet and can be used freely without any charges (Haddaway et al., 2015). The same goes for Dimension. ai which has over 95 million publications that can be accessed freely (Mohamad, Sihes & Bohari, 2020).

Eligibility criteria and exclusion

The eligibility and exclusion article is determined based on some criteria. Firstly, the selected article must be from only journals and proceedings. Second, the article should use only Malay

language. Third, writing time limit. These review was done towards articles and proceedings which were published between the year 2015- 2020 only. Fourth, the research location is referred to the article that studies HOTS practices in teachings must only be in Malaysia. Fifth , the research area where the articles selected must revolve around Islamic Education. The table below explains the selection criteria of the article.

Table 1: Inclusion and exclusion criteria

Criteria	Eligibility	Exclusion
Article type	Journal articles and proceedings	Meta analysis journal, systematic review journal, document, book.
Language	Malay language	Other than Malay language
Time	2015-2020	<2015-2020<
Country	Malaysia	Non Malaysia
Research area	Islamic Education	Non Islamic Education

Systematic Review Process

The review process was done in January 2018. There were four processes involving systematic reviews. The first phase was identification process which was carried out to identify the keywords related to the research being done. These keywords were based on the vocabulary which had similarity and synonyms, related previous researches and Malay Literature Reference Centre (Refer Table 2).

Table 2: Database and search keywords of systematic article

Database	Keywords used
Dimensions	“Amalan pengajaran” OR kebiasaan pengajaran” AND “kemahiran berfikir aras tinggi” OR “KBAT” AND “pendidikan islam” OR “pengajian Islam”
Google scholar	“Amalan pengajaran” OR "kebiasaan pengajaran” AND “kemahiran berfikir aras tinggi” OR “KBAT”

At this stage, 324 articles (284) from GS and 40 from Dimension) were identified, whereas at the second phase which was the preliminary phase where two same articles (duplicates) would not be in the article selection. Phase 3 was the eligibility where 272 articles were dismissed for not meeting the criteria. At the fourth phase, there were 50 qualified articles being reviewed, however 41 were rejected for not focusing on HOTS practices. Ten articles were finalized where they were related to HOTS teaching practices on Islamic Education in Malaysia. (See Fig.1)

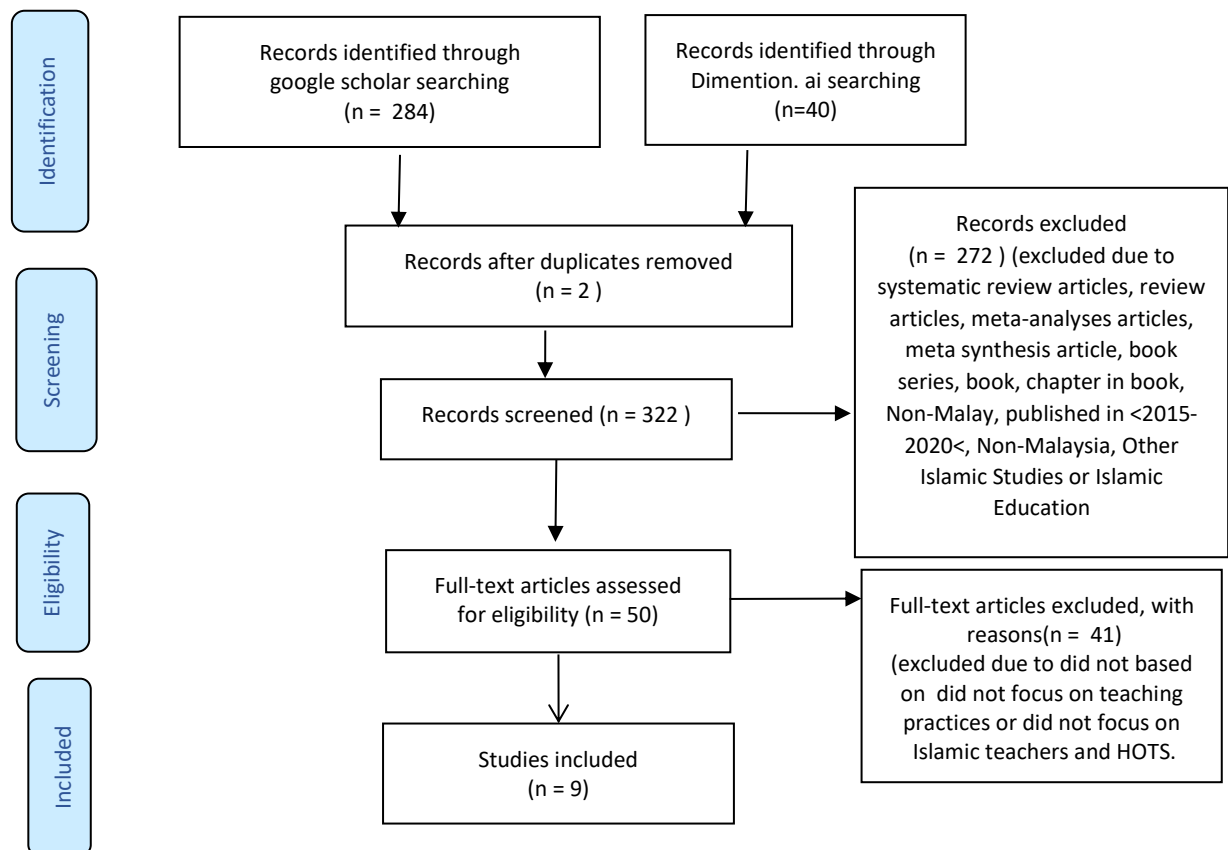


Fig. 1. The flow diagram of the study. (Adapted from Moher et al. 2009; Shaffril et al. 2018)

Research Findings

Teaching practices of Islamic Education Teachers

Based on the previous researches, there were two themes of Islamic Education teaching practices in Malaysia those were the teaching levels and components of practices. The first theme contained a sub-theme related to teaching plans, starter, teaching development, closure and general. The second sub-theme were knowledge, teaching methods, values and teaching aids. Table 3 Displays the theme and sub-themes of the research practice.

Table 3: Research finding from 9 articles related to practices by Islamic Education Teachers in Imparting HOTS

Researchers	Research designs	Teaching level					Components of practice			
		PL	ST	TD	CL	GN	KN	TM	V	TA
Othman & Kassim (2018a)	QN	/								
Othman & Kassim (2016a)	QN		/							
Khan, Noh & Hussein (2016)	QL		/	/	/					
Othman & Kassim (2017a)	QL		/	/	/					
Othman & Kassim (2018b)	QL		/	/	/					
Mustafa et al. (2018)	QN					/				
Othman & Kassim (2016b)	QL						/	/	/	
Othman & Kassim (2017b)	QN									/
Zeki, Razak & Razak (2020)	QL									/
Total	QN=4 QL=5	1	5	4	4	1	1	1	1	2
QL=Qualitative; QN=Quantitative PL=Planning ; ST= Starter; TD= Teaching Development; CL=Closure; GN= General, KN=Knowledge; TM= Teaching Methods, V=Values; TA=Teaching Aids .										

Teaching Levels

There were 6 out of 9 researches who studied teachers’ practices based on teaching levels. Research by Othman and Kassim (2018a) focused on documentations planning aspects, commitment and implementation planning. Research finding exposed that teaching planning level in all aspects were intermediate. Previously, Othman & Kassim (2016a) focused on the research on teaching starter. Three review aspects were on teaching plans, setting teaching objectives and induction set base on HOTS carried out by the research respondents. Research findings revealed that the imparting teachers’ HOTS into all aspects were high. Teachers were always making sure that planning aspects would always refer to pupils’ abilities during previous lessons. HOTS were also applied in setting up the teaching objectives and also during induction set. Nevertheless, there were Islamic Education teachers who implemented exam-oriented induction sets, and not aiming at mastering the knowledge. A research by Khan, Noh & Hussein (2016) on induction set, teaching methodology and reflection. Research findings

displayed that during the induction set, Islamic Education teachers used 3 ways which included stimulating existing knowledge, questioning and acronyms. At the while-teaching or the development stage, two Islamic Education teachers used a different prompting approach starting from the lower level questions advancing to the higher ones. Meanwhile, the third respondent used acronyms. For reflection or closure, two research respondents came up with their reflections through the pupils' individual presentations and groups. The other respondent made a conclusion of reflection through various levels of questioning.

Othman & Kassim (2017a) studied the questioning approach being practised by the Islamic Education teachers at the starter, development and closure of teaching. Research finding showed that teachers used all levels in verbal questions. However, there were differences in the use of orders according to the levels of teaching involving starter, development and closure. The whole research showed the need for the teachers to use intermediate and high level verbal questions in forming and fulfilling the requirement of teaching based on HOTS. Othman & Kassim (2018b) in the next research found that Islamic Education teachers did have knowledge and skills in executing their teaching. At the beginning of the lesson, teachers started off with low level and during the development of teaching, they used all the levels of low, intermediate and high. When it came to closure of the lessons, there were differences among the two teacher respondents. Teacher A maintained an active teaching meanwhile Teacher B was more passive and used low level skills. The research on HOTS by Mustafa et al (2018) generally without mentioning levels of teaching showed that the level of HOTS practices among Islamic Education teachers is high. The HOTS teachings were implemented accordingly based on the guidelines of MOE.

Component of Teaching Practices

The second theme was about components of practices. The sub-theme includes of knowledge, teaching methods, values, and teaching aids. Research on the sub-theme of knowledge was done by Othman & Kassim (2016b) through careful observation towards an article by al-Ghazali which showed that teachers needed to understand the concept of knowledge and HOTS teaching practices. Knowledge in Islam is related to spiritual, not only worldly knowledge. Besides, this research found that HOTS practices depend on the teaching methods which cover 1) Teachers' readiness 2) Pupils' capability to learn and 3) Appropriate methods. Sub-theme component of this research is about values. Values nurturing in the teaching practices relies on 1) Belief 2) Characteristics and manners and 3) Teachers' action in implementing HOTS in classes. Two other researches focused on the use of teaching aids in teaching practices. Othman & Kassim (2017b) found three main components of teaching aids being used in teaching practices of Islamic Education teachers were Routine Pattern, Side Pattern and Non- Pattern teaching aids. The main teaching aids pattern being regularly used were worksheets, modules and textbooks. Other teaching aids such as LCD and computers were not commonly used due to lack of knowledge and skills of the teachers, as well as time constraint. Zaki, Razak & Razak (2020) studied about the challenges in using teaching aids at two schools in a remote area in Sabah. Among the challenges faced by the Islamic Education teachers, teaching at such schools include limited quantity and variety of the materials resulting in using the same teaching aids repetitively. Hence, making the pupils to lose interest in learning and therefore did not encourage thinking skills.

Discussion

This systematic review focuses on Islamic Education teachers practicing HOTS in Malaysia. Nine articles from two data sources meet the criteria to review. The findings show that the two themes of HOTS practice of Islamic education teachers are the level of teaching and the component of practices. Most of the studies focus on the teaching level of HOTS (planning, starter, development, closure, and general) compared to the component of practice (knowledge, teaching methods, values, and teaching aid). The results showed that on the theme of teaching level, only one study focused on the planning same as the beginning level and general. However, four studies are covering the beginning, development and, closing level. A study focuses on the components of knowledge, research methods and, values for the second theme, and Two studies related to the sub-themes of teaching aids. The finding also shows that the same researcher has conducted 6 of 9 studies in this area. This data indicates the lack of researchers who study the practice of HOTS in Islamic education. The majority of the studies use a qualitative method rather than a quantitative one. Most studies have focused on Islamic Education teachers in primary school.

Conclusion

HOTS are the skills that should be acquired by pupils in nowadays education so that they can fulfill the requirement of the world's current market demands. Pupils' capability to think depends on the teachers' practice of teaching. Researches on systematic teaching practices are still not frequently done, whereas this scope is actually prominent to be carried out. Without a clear knowledge on teachers' HOTS teaching practices in Malaysia, this scope seems to be less stressed on in teaching. HOTS teaching practices should be highlighted and uplifted by all teachers in order for the national education goals to be achieved.

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