



REVIEW ARTICLE

CONDUCTING EDUCATION RESEARCH STUDIES ON COGNITIVE SKILLS IN THE DOMAIN OF ISLAM

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ABSTRACT

Educational researchers have been expressing their interest in cognitive skills in the domain of Islam. New research studies need to be conducted by researchers from Western countries to bring new insights into cognitive skills in the Islamic domain. The purpose of this article is to highlight and explain the significance of variables that need to be taken into consideration by researchers when investigating cognitive skills in the Islamic domain to minimize third variables and to provide the most accurate information.

INTRODUCTION

Educational researchers have been expressing their interest in cognitive skills in the domain of Islam. The literature review has revealed research studies by Al-karasneh and Saleh (2010) and Mohamad, Zarif, Atoma, Ismail, Nizah, and Kandi (2012) exploring creative thinking skills in Islam. Al-karasneh and Saleh (2010) investigated the main features of creativity from an Islamic perspective in an attempt to develop understanding of creativity for social studies teachers, whereas the study by Mohamed *et al.* (2012) intended to elaborate the concept of creativity and innovation in Islam based on the examples provided by the prophet Mohammed a.s. and the importance of applying Islamic creativity and innovation to the present-day educational system. In addition to research studies that focused on creative thinking skills, the literature review revealed research studies by Ashraah, Al-Nabrawi, Shdeifat, and Ali (2012) and Alwadai (2014), which focused on critical thinking skills in the domain of Islam. Ashraah *et al.* (2012) explored the critical thinking skills of Islamic education teachers in Jordan in relation to teachers' gender, experience, and scientific qualifications, whereas the research study by Alwadai (2014) examined Islamic teachers' thoughts on how to improve critical thinking skills in elementary schools in the southwestern province of Saudi Arabia. Further reviewed literature revealed a research study by Kamal and Ghani (2013), which examined the relationship between emotional intelligence and the adolescent *akhlak* (morality) among 92

students from an Islamic school in Johor, Malaysia, and a research study by Andin, Harun, Ismail, and Hamzah (2014), which discussed an Islamic perspective on thinking and teaching thinking skills. The research studies that investigated cognitive skills in the domain of Islam did provide new information that helps educators to better understand cognitive skills and their development. However, the research studies revealed by the literature review were conducted by researchers from countries with a predominantly Islamic population. The academic community has a deficit of research studies about cognitive skills in the Islamic domain conducted by researchers from Western countries. It could be hypothesized that researchers from Western countries can provide a different explanation and insight into cognitive skills in the Islamic domain. However, it could also be hypothesized that researchers from Western countries who express interest in studying cognitive skills in the Islamic domain may not be aware of certain variables that have to be taken into consideration when conducting such studies to minimize the effects of third variables and to get the most accurate information. A good example could be research studies that investigated other topics in the domain of Islam.

Purpose of the Study

The purpose of this article is to highlight and explain the significance of variables that need to be taken into consideration by researchers when investigating cognitive skills in the Islamic domain to minimize third variables and to provide the most accurate information.

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Regional distribution of Muslims

Population by region as of 2010



Percentage of world Muslim population in each region as of 2010



Note: Population estimates are rounded to the ten thousands. Percentages are calculated from unrounded numbers. Figures may not add to 100% due to rounding.

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Figure. 1

The previous research studies by Al-karasneh and Saleh (2010), Mohamed *et al.* (2012), Ashraah *et al.* (2012), Alwadai (2014), Kamal and Ghani (2013), and Andin (2014) did provide new insight into cognitive skills in the Islamic domain: however, currently available studies have been conducted by researchers from countries with a predominantly Islamic population. New research studies need to be conducted by researchers from Western countries to bring new insights into cognitive skills in the Islamic domain. However, to provide the most accurate information about cognitive skills in the Islamic domain, researchers will have to be aware of the variables that need to be taken into consideration when conducting such studies. Therefore, the purpose of this research study is to explain the significance of such variables that need to be taken into consideration by researchers when conducting such studies.

Demography of the Muslim Population

According to estimates, there are approximately 1.6 billion Muslims in the world as of 2010 (DeSilver and Masci, 2017). Based on data of world population of 7.5 billion from the United Nations' Department of Economic and Social Affairs, Population Division, (2017), Muslims constitute approximately 21.3%. It is very important to understand that the 1.6 billion Muslim population is spread around the world and not situated in one geographic area. For instance, the Organisation of Islamic Cooperation, one of the largest international Islamic organizations and the second largest international organization after the United Nations, consists of 57 member-states with Muslim majority and five observer-states with a significantly large Muslim population as of 2017 (Organisation of Islamic Cooperation, 2017).

In addition to these data, it is important to understand that Muslim population is present in most countries in the world and not equally distributed throughout the world. The common mistake in research studies that focus on Islam is that researchers primarily focus on the Middle East, assuming that the Middle East is the geographical region with the largest concentration of Muslim population. However, according to statistical data provided by the Pew Research Center, 19.8% of the total Muslim world population, approximately 317,070,000 is situated in the Middle East and North Africa as of 2010 (DeSilveri and Masci, 2017). The largest concentration of Muslim population is in the Asia-Pacific region, with 61.7% or 986,420,000; sub-Saharan Africa has 15.5% or 248,420,000 (DeSilveri and Masci, 2017). Other geographical regions include Europe with 43,470,000 Muslims, which constitute 2.7% of the Muslim world population, North America with 3,480,000 or 0.2%, and Latin America-Caribbean with 840,000 or less than 0.1% (DeSilver and Masci, 2017). Therefore, based on the demographic data of the Muslim world population, it could be hypothesized that Muslim population is present in all populated continents in the world, more or less, but not equally distributed throughout the world. Therefore, educational researchers who conduct research studies on cognitive skills in the Islamic domain will have to take demography into consideration and not assume that majority of the Muslim population is situated in the Middle East because cognitive skills may be differently interpreted and adopted in different parts of the world owing to the local cultures and subcultures, educational systems, and law and regulations. Figure 1. Regional distribution of Muslim population. Adopted from "World's Muslim population more widespread than you might think," by D. DeSilver and D. Masci, 2017, *Pew Research Center*. Copyright 2018 by Pew Research Center. Retrieved

from: <http://www.pewresearch.org/fact-tank/2017/01/31/worlds-muslim-population-more-widespread-than-you-might-hink/>.

Culture

Culture is defined as a set of beliefs and practices shared by a group or simply, a way of life. Research studies by Pérez-Arce (1999); Vogeley and Roepstorff (2009); Harvey (2009); Kastanakis and Voyer (2014); Imai, Kanero, and Masuda (2016) suggest that culture may play a significant role in human cognitive development. In addition, a good elaboration on the effects of culture on human cognitive development was written by Nisbett and Norenzayan (2002). The significance of the effects of cultural on cognitive development has also been recognized by Lev Vygotsky (1978). When studying cognitive skills in the domain of Islam, it is important to highlight that Islam is a faith, not a culture. Demography of Muslim population indicates that Muslims and followers of Islam in general, are present in all geographical regions of the world. They come from different countries and continents, and they have different linguistic, ethnic, racial, and historical backgrounds. Followers of Islam from Bosnia and Herzegovina, Turkey, Saudi Arabia, Pakistan, Indonesia, and Somalia are "separated" by their language, ethnicity, race, and historical background. In research studies about cognitive skills in the domain of Islam, it would be very biased to classify all followers of Islam simply as "Muslim" and to assume that they all come from the same cultural background. Research studies and theories suggesting that cultural differences may have different effects on cognitive skills are abundant. For instance, a research study by Kuwabara and Smith (2012) suggests that just like adults, children from Eastern and Western cultures may have different attentional and cognitive processing skills, whereas a research study by Lim (2016) suggests that emotional arousal levels may be different between Easterners and Westerners. Therefore, it is crucial for researchers to recognize the effect of local cultures on cognitive skills when studying these skills in the domain of Islam. A research study by Richardson (2004) can serve as a good example, where the researcher took into consideration the influences of the Arabic-Islamic culture when studying reflective practices for an education degree at the Higher Colleges of Technology in the United Arab Emirates.

Religious and Secular Norms

The third variable that needs to be taken into consideration by researchers who conduct studies about cognitive skills in the domain of Islam are religious and secular norms. In Islamic societies, not everything is based on religious norms. Therefore, researchers will have to be aware of the norms mandated by Qur'an and Islamic religious philosophers on one side and local culture, local subculture, and personal culture on the other. Religious Islamic norms are primarily derived from the Qur'an, the Islamic holy book, and should not be confused with local views and laws about cognitive skills and education in general. A research article by Keshavarz (2010) provides the Qur'an's view on education and the acquisition of knowledge. In addition to Qur'an's educational interpretation, Islamic educational interpretation can also be derived from Islamic scholars and philosophers (Hassan, Suhid, Abiddin, Ismail, and Hussin, 2010), which may, or may not, be accepted and

implemented by local lawmakers. In addition to religious norms and religious interpretations of cognitive skills and education in the domain of Islam the interpretation of cognitive skills and education in the domain of Islam is dictated by secular norms. For instance, educational systems and school programs in countries with a predominantly Muslim population, such as Saudi Arabia, Indonesia, and United Arab Emirates, have implemented numerous legislations that regulate education but are not based on Sharia law. Education systems in most present-day Muslim countries are regulated and overseen by ministries of education that in many ways resemble Western ministries of education. Actions and legislations imposed on educational systems in Muslim countries that would regulate incorporation and development of cognitive skills in the curriculum may not be based on the Qur'an's regulations or Islamic philosophy in general.

Conclusion

Cognitive skills are important aspects of any educational system. One can argue that the core objective of any educational system in the world is to teach and help learners develop good cognitive skills that will help them survive in the real world. Therefore, the educational community should pay close attention to the development of cognitive skills. The literature review suggests that researchers are expressing their interest in the development of cognitive skills in the domain of Islam and how the Islamic philosophy affects the development of cognitive skills. However, when conducting research studies about cognitive skills in the domain of Islam, it is necessary for researchers to take into consideration variables that may play a significant role in the development of cognitive skills, such as, among others, demography, local culture, and social norms. Interpretation of cognitive skills in the domain of Islam can be found in the Qur'an's as a religious source, as well as in local cultures, local subcultures, and political decisions of lawmakers that are not necessarily related to the Qur'an's interpretation of cognitive skills. It would be wrong to attribute local cultural norms and political decisions to the original Islamic interpretation of cognitive skills. Therefore, this article aims to highlight the variables that have to be taken into consideration by researchers who intended to conduct research studies on cognitive skills in the Islamic domain to avoid biases and come up with reliable findings.

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