The Association between Reading Self-efficacy Beliefs and Meta cognitive Reading Strategies among Saudi PYP students

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Abstract

The article presents an empirical support regarding the role of reading self-efficacy beliefs in three kinds of meta cognitive reading strategies (i.e., problem-solving, support, global) among Saudi Preparatory-Year-Programme (PYP) students. Data was collected from 371 Saudi PYP students. Proportionate stratified random sampling was employed to choose the sample. The outcomes revealed that reading self-efficacy beliefs were positively and significantly correlated with each of the three kinds of meta cognitive reading strategies. Lastly, it is expected that these findings would be helpful for EFL learners and teachers if teachers boost learners' self-efficacy beliefs in order to increase the frequency of the usage of meta cognitive reading strategies.

Keywords: Reading Self-efficacy Beliefs, Meta cognitive Reading Strategies,

Introduction

Cognitive strategies help the readers to comprehend the text in a better way. These strategies include skimming, re-reading, scanning, reading slowly, using past knowledge etc. However, mere knowledge regarding these strategies is not sufficient rather the readers ought to know how to apply these cognitive strategies and how to gauge the efficiency of the applied strategies.[1] Thus, the process of reflecting while applying cognitive strategies during reading are known as meta cognitive reading strategies.[2]

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The concept of meta cognition plays a vital role in meta cognitive reading strategies. The word 'meta cognition' was first coined by a renowned psychologist, John Flavell in 1979 in his theory called 'theory of meta cognition'. The literal definition of meta cognitions is segregated into two elements, i.e., knowledge of cognition and regulation of knowledge.[3]

Bandura proposed a theory named 'Social cognitive theory' in which he presented 'self-efficacy' as a research construct for the first time.[4]Bandura described self-efficacy as "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances".[5]The focal point of this research was reading, thus 'reading self-efficacy' was the independent variable of the current study.

In the arena of research, the variable, self-efficacy holds a vital importance. Artino conducted a systematic literature review of more than 100 studies related to nine most frequently researched psycho-social variables.[6] He resolved that self-efficacy was the most effective forecaster of learners' academic performances. Thus, due to its paramount significance, this study would analyse the associationof reading self-efficacy with metacognitive reading strategies among Saudi Preparatory-Year-Programme (PYP) students.

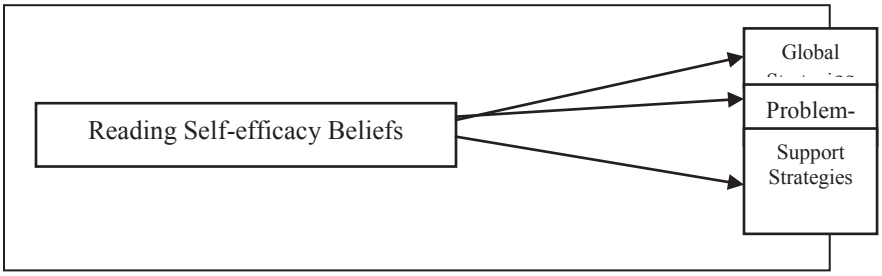
Problem Statement

It is expected that the Saudi EFL learners ought to be proficient in English language usage when they get admitted to universities in view of the fact that they have been taught English language for no less than six years in schools.[7] In spite of this, they stand at a poor level of reading proficiency when they get admitted to universities.[8]

The level of reading skills of the Saudi EFL learners is poor, since they are not exposed to the usage of reading strategies in schools.[9]It can be deduced from the above-mentioned argument that the Saudi EFL learners' usage of reading strategies is restricted instead they rely on memorization to get success in exams. Meta cognitive reading strategies play a substantial role in successful reading comprehension.[10]Researchers believed that the initial development of meta cognitive skills starts at an early age of eight to ten years and they continue to thrive in the coming years.[11] However, Saudi EFL learners' case, they are not taught the usage of meta cognitive reading strategies until the completion of their school education.[12]Consequently, the Saudi EFL learners face difficulties while comprehending text at university level.[13]

It can be deduced from the above-mentioned arguments that Saudi school students probably waste at least eight to ten years of their precious time by not concentrating on meta cognitive skills while reading. Therefore, in order to increase their level of English proficiency generally and reading proficiency particularly, they need to attend a one year 'preparatory-year-programme' (PYP), before pursuing their undergraduate studies in universities.[14] Therefore, in the current study, a sample of Saudi PYP students was selected.

Bandura described self-efficacy beliefs as individuals' beliefs related to their own capabilities to achieve a task to acquire a designated level of performance.[15] The literature review indicated that self-efficacy was used as a variable in almost every field of research including health, sports, academic achievement etc.[16,17,18] However, in Saudi Arabian context, there is lack of research regarding reading self-efficacy generally and the association of reading self-efficacy with meta cognitive reading strategies among PYP students particularly. Thus, to address this gap, this study intended to determine the association between reading self-efficacy and meta cognitive reading strategies among Saudi PYP students.



The aims of this study are given below:

1) To determine the extent of association between reading self-efficacy beliefs and global reading strategies among Saudi PYP students.
2) To determine the extent of association between reading self-efficacy beliefs and problem-solving reading strategies among Saudi PYP students.
3) To determine the extent of association between reading self-efficacy beliefs and support reading strategies among Saudi PYP students.

Literature Review

The review of the literature found several studies regarding the association between self-efficacy and meta cognitive reading strategies.[19,20,21,22,23,24,25]There were numerous researchers who conducted research regarding the association of self-efficacy with meta cognitive reading strategies among Turkish university students.[26,27]Both studies found significant and positive association of self-efficacy with meta cognitive reading strategies.

There were some studies which employed an experimental research design so as to find the impact of meta cognitive strategies instruction on EFL learners'self-efficacy beliefs.[28,29]Both studies indicated that self-efficacy beliefs of the students were elevated after meta cognitive reading strategies instruction.

Most of the aforementioned studies were piloted on university students. However, a few studies considered high school students as their sample.[30,31]The outcomes of the aforementioned two studies indicated that meta cognitive strategies and self-efficacy beliefs were positively and significantly correlated with each other. It is worth-mentioning that in Yailagh's et al. study, only female students were part of the sample; therefore, generalizing the findings to the opposite sex could be dubious.

A number of studies were conducted on Iranian EFL students to determine the association among meta cognitive strategies and self-efficacy beliefs. All of the four studies revealed a positive as well as significant association of self-efficacy beliefs with meta cognitive reading strategies.

Shang conducted mixed-methods research regarding the impact of self-efficacy beliefs on meta cognitive reading strategies.[32] The sample included 53 Taiwanese university students including 36 females and 17 males. After statistical analysis, it was discovered that self-efficacy was positively and significantly associated with reading strategies usage. Interviews' results showed what specific strategies students use in different circumstances. Shang's study is different from all the previous studies being reviewed due to the reason that all the other studies have used quantitative method for conducting research whereas, Shang's study employed mix-methods research. Consequently, the findings of Shang can be considered more reliable.

Lastly, Bonyadi, Nikou, and Shahbaz found the correlation of self-efficacy beliefs with the usage of strategies. The total participants of the study comprised 210 students. Findings revealed an insignificant association between self-efficacy beliefs and metacognitive strategies.

The outcomes of Bonyadi's et al. study are opposite to the outcomes of all the studies being reviewed due to the fact that Bonyadi et al. revealed that there was no significant association among two variables.

Hypotheses

Based on the reviewed literature, following hypotheses can be generated.
H_1: There is a positive significant association between reading self efficacy beliefs and global reading strategies.
H_2: There is a positive significant association between reading self-efficacy beliefs and problem-solving reading strategies.
H_3: There is a positive significant association between reading self-efficacy beliefs and support reading strategies.

Methodology

Research method is most crucial part of every research study which should be accordance with the nature of study. Considering the research objectives of the study, quantitative research approach and correlational research design were employed.

Participants

The current study's sample comprised of 371 male Saudi students. The participants were studying in second semester of PYP. The average age of the students was 18. This sample was selected from four Saudi public universities. The sample was selected by employing proportionate stratified random sampling.

Instruments

As this study involves two variables, two questionnaires were employed in order to collect the data. Firstly, 'reading self-efficacy beliefs questionnaire' was adapted from Tobing. Secondly, 'survey of reading strategies' was adopted from Mokhtari and Sheorey. It contained 30 items. Furthermore, it contained items regarding three kinds of metacognitive reading strategies, i.e., problem-solving reading strategies (8 items), support reading strategies (9 items), and global reading strategies (13 items).

Procedures

The data collection procedure lasted for four days. The researcher visited each of the four universities in order to gather the data. All the statements were explicated clearly by the researcher to the respondents. Furthermore, they were ensured that their identity would be kept

confidential. The respondents took approximately ten minutes to complete 'reading self-efficacy beliefs questionnaire'. However, they took twenty minutes to complete 'survey of reading strategies'.

Analysis

In order to report PLS-SEM outcomes, the present study employed two-stage approach presented by Henseler at al. The first stage is known as 'measurement model assessment'. The second stage is called 'structural model assessment' All the steps recommended by Henseler at al.[33]are compiled by Hameed et al. as shown in Figure 3.

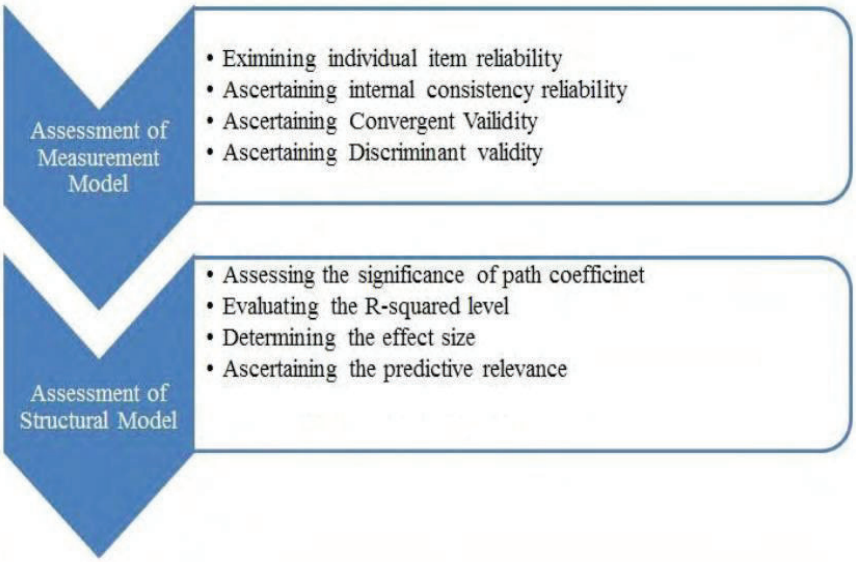


Figure 2: Two Step PLS-SEM, Source: Hameed et al.

Measurement Model

Several entities including discriminant validity, average variance extracted (AVE), factor loadings, Cronbach's alpha, and composite reliability were scrutinized to assess the measurement model. Figure 3, Table 1 and Table 2illustrate the outcomes of the measurement model.

Reading self-efficacy beliefs (SEB) is measured by seven items. Global reading strategies (GL) are measured by eight items. Additionally, six items measure 'problem-solving reading strategies' (PSS). Lastly, four items measure 'support reading strategies' (SP).

Table 1: Factor Loadings

	GL	PSS	SEB	SP
GL1	0.899			
GL10	0.918			
GL12	0.907			
GL13	0.58			
GL4	0.92			
GL7	0.928			
GL8	0.586			
GL9	0.898			
PSS2		0.808		
PSS3		0.835		
PSS4		0.73		
PSS6		0.747		
PSS7		0.81		
PSS8		0.652		
SEB1			0.802	
SEB2			0.742	
SEB3			0.835	
SEB4			0.852	
SEB5			0.698	
SEB6			0.721	
SP1				0.933
SP2				0.83
SP4				0.835
SP5				0.929

Source: Author's own estimates based on survey data

Table 2 indicates the values of AVE, Cronbach's alpha, and composite reliability. The Cronbach's alpha value ought to be greater than 0.7. In this study, the value of Cronbach's alpha lie between 0.858 and 0.938. Furthermore, composite reliability's (CR) value ought to be equal to or higher than 0.7 and the value of AVE ought to be equal to or greater than 0.5. In this study, the values of both CR and AVE are above the aforementioned benchmarks. In addition, Table 3 displays the values of discriminant validity gathered via Heterotrait-Monotrait Ratio (HTMT) method.

Table 2: Cronbach's alpha, Composite Reliability and AVE

Constructs	A	rho_A	CR	(AVE)
GL	0.935	0.938	0.95	0.708
PSS	0.858	0.863	0.894	0.587
SEB	0.868	0.873	0.901	0.604

SP	0.904	0.906	0.934	0.779

Table 3: Heterotrait-Monotrait Ratio (HTMT)

	GL	PSS	SEB	SP
GL				
PSS	0.536			
SEB	0.723	0.796		
SP	0.531	0.473	0.648	

Structural Model

Structural model was gauged to establish the direct impact of SEB on GL, PSS, and SP. In order to confirm the hypotheses, path coefficients and t-value were taken into consideration. In addition, R-Square (R^2) and predictive relevance (Q^2) were also assessed. The present study contains three direct hypotheses as depicted in Figure 4 and summarized in Table 4. All the three hypotheses (i.e., H_1, H_2, H_3) were accepted considering that the t-value was higher than 1.96.In other words, reading self-efficacy beliefs were positively and significantly correlated with support, problem-solving, and global reading strategies. Also, Table 4 indicates the effect size (f^2). Cohen (1988) confirmed that the effect size value of 0.02 is small, 0.15 is medium, and 0.35 is strong. In this study, the values of f^2 for all the constructs are greater than 0.35, indicating a strong effect size.

Table 4 Structural Model Assessment

	(β)	(STDEV)	T Statistics	P Values	f^2
SEB -> GL	0.655	0.03	21.769	0	0.751
SEB -> PSS	0.707	0.026	26.848	0	0.880
SEB -> SP	0.567	0.042	13.652	0	0.475

Table 5 indicates the R^2 values. It shows that reading self-efficacy beliefs (SEB) influenced global reading strategies (GL), problem-solving reading strategies (PSS), and support reading strategies (SP) by 42%, 50%, and 32% respectively. In addition, Table 6 shows the values of predictive relevance (Q^2).Henseler et al. affirmed that Q^2 value ought to be greater than zero. In the current study, Q^2 value for GL, PSS, and SP were 0.271, 0.266, and 0.235 respectively.

Findings and Discussion

This study was conducted with the intention of determining the association of reading self-efficacy beliefs with three kinds of Meta cognitive reading strategies (i.e., problem-solving, global, support strategies). Structural model assessment disclosed that reading self-efficacy (SEB) was positively and significantly associated with global reading strategies (GL) having a t-value of 21.769 and β-value of 0.655.Furthermore, it was revealed that SEB was positively as well as significantly correlated with problem-solving reading strategies (PSS) having a t-value of 26.848 and β-value of 0.707. Lastly, SEB was positively and significantly correlated with support reading strategies (SP) having a t-value of 13.652 and β-value of 0.567. Therefore, all the three hypotheses generated at the start of this study were accepted.

The aforementioned outcomes are in line with the outcomes of the past studies. The strong relationship further identifies the substantial and remarkable role of reading self-efficacy beliefs in reading strategically and endorses previous findings that learners require both strategies and skills and a self-belief in their abilities to accomplish successes.[34]To put it another way, the outcomes of the current study emphasized that for successful reading comprehension, mere knowledge of meta cognitive strategies and skills is not sufficient, but the readers also require to have a belief about their reading abilities. Hence, it can be deduced from the findings that reading self-efficacy beliefs play a crucial part in the usage of learners' meta cognitive reading strategies while reading. As indicated by Sheorey and Mokhtari' knowledge about strategies and scrutiny of the processes involved in reading comprehension are crucial attributes of proficient reading. Likewise, reader's awareness related to meta cognition, i.e., planning and intentionally employing suitable actions to accomplish a particular objective, is believed to be an essential component of strategic reading. Moreover, Bandura affirmed that the students having high self-efficacy have high level of motivation and persistence in performing tasks. As Ersanl asserted that self-efficacy beliefs and motivation are a key to success; therefore, the participants might have used Meta cognitive reading strategies due to motivational factors. Additionally, the participants might have faced difficulties in comprehending the text; therefore, for better reading comprehension, they employed meta cognitive reading strategies.

Conclusion and Implications

The outcomes of the current research disclosed that reading self-efficacy were positively as well as significantly associated with meta cognitive reading strategies. These findings could be crucial for the EFL learners generally and Saudi PYP students particularly. Also, it could be equally beneficial for EFL teachers. Jiuhuan and Newbern affirmed that research studies regarding meta cognitive strategies could be highly valuable for language instructors, since reading self-efficacy beliefs can be elevated by inculcating meta cognitive reading strategies in the students. Consequently, high reading self-efficacy beliefs would assist them in overcoming reading difficulties.

The current study consisted of male participants due to cultural limitations in Kingdom of Saudi Arabia. Thus, with the intention of generalizing the findings to both genders, future researchers ought to conduct studies by including female sample as well. Moreover, as this study is quantitative in nature, future researchers should conduct studies on current study's variables by employing qualitative research method to get an in-depth picture of the phenomenon.

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