Self-efficacy Sources and Reading Comprehension: The Mediating Role of Reading Self-efficacy Beliefs

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ABSTRACT

The study aimed at identifying the association between Bandura's four hypothesized self-efficacy sources and reading comprehension by employing reading self-efficacy beliefs as a mediating variable. A correlational research design was used. A total of 351 Saudi EFL learners were selected from eight public universities of Kingdom of Saudi Arabia by employing proportionate stratified random sampling. Two questionnaires including 'questionnaire for sources of reading self-efficacy', and 'reading self-efficacy beliefs questionnaire', and an IELTS reading comprehension test were used to collect the data. Path analysis by AMOS 23 was utilised in order to test the hypotheses. Findings provided support for the proposed conceptual framework, disclosing that all the four self-efficacy sources were significantly associated with reading self-efficacy beliefs. Also, reading self-efficacy beliefs were significantly associated with reading comprehension. Lastly, reading self-efficacy beliefs mediated the association between self-efficacy sources and reading comprehension. This study offered several theoretical and practical implications for EFL learners, instructors, and educational policymakers on the need of inculcating self-efficacy beliefs among learners to facilitate them in English reading comprehension.

Keywords: Self-efficacy sources; reading self-efficacy beliefs; reading comprehension; path analysis; Saudi EFL learners

INTRODUCTION

Academic achievement largely depends on the reading comprehension skills of the students (Grabe 1991; Johns 1981). Also, in higher education, reading comprehension is considered as one of the most indispensable skills (Meniado 2016). It is utterly essential for the students to comprehend what they read in order to cope with the demanding subjects offered at a university level (Meniado 2016). Regrettably, the International English Language Testing System (IELTS) (2017) report revealed extremely low reading scores of students of some of the English as foreign language (EFL) countries including the Kingdom of Saudi Arabia (KSA). More particularly, out of nine bands, average bands acquired by the Saudi students in reading skills were 5.05, i.e., the third lowest in the world and 3.90, i.e., the lowest in the world in academic and general IELTS categories respectively. Moreover, from a global perspective, the previous research indicated that EFL students faced hurdles in reading comprehension (Al Seyabi & Tuzlukova 2015 in Oman; Chen & Chen 2015 in Taiwan; Cho

& Brutt-Griffer 2015 in South Korea; Guimba & Alico 2015 in Philippines; Hamra & Syatriana 2015 in Indonesia). Likewise, in the context of KSA, researchers revealed that when the students enter the university level after completing their school education, their reading comprehension level is poor (Al-Qahtani 2016; Ismail 2014; Meniado 2016).

Research indicates that readers embark on reading tasks persistently if they have faith in their capability to comprehend it effectively (Solheim, 2011; Unrau et al., 2018). It has been established in 'social cognitive theory' (SCT) that learners' views about their own capabilities to accomplish any task play a significant role in their achievements or failures (Bandura 1986). Self-efficacy beliefs instil motivation among people to achieve success in required tasks in every walk of life (Bandura 1986, 1997; Pajares, 2002; Alias, Lashari, Akasah, & Kesot 2018). In terms of reading comprehension, the construct of self-efficacy needs attention in KSA. In the context of KSA, only few researchers have conducted studies to investigate the relationship between certain kinds of self-efficacy (i.e., general self-efficacy, English self-efficacy, social self-efficacy, and foreign language self-efficacy) and different kinds of achievements (i.e., academic achievement, language achievement, oral achievement) (Al-Hebaish & Mohammad 2012; Al-Roomy 2015; Humaida 2017; Koura & Al-Hebaishi 2014; Razek & Coyner 2014; Saleem, Ali & Ab Rashid 2018). However, there is a severe dearth of studies related to 'reading self-efficacy'.

Furthermore, Bandura (1986) affirmed that self-efficacy beliefs originate from their four sources including 'mastery experience', 'vicarious experience', 'verbal persuasion' and 'physiological state'. 'Mastery experience' includes the past experiences of the individual regarding his/her successes and failures. It is considered as the most influential as compared to the other three sources (Bandura 1986, 1997). Self-efficacy beliefs get boosted by successes, whereas they get lowered when one faces failures. In addition to one's personal experiences, observation of other individuals' experiences, particularly peers' experiences (vicarious experience) is the second source of self-efficacy beliefs. In other words, one can observe other successful peers and their success can persuade one to believe that one can accomplish similar tasks. 'Verbal persuasion' is regarded as the third source of self-efficacy and it consists of feedback from the significant people in the life of an individual, i.e., parents, peers and teachers. The feedback can influence individual's performance. Lastly, the fourth self-efficacy source, i.e., 'physiological state' refers to anxiety and exhaustion which can affect one's self-efficacy beliefs (Bandura 1986). These four hypothesised self-efficacy sources are responsible for generating self-efficacy beliefs in any individual and in turn, self-efficacy beliefs influence individual's performance (Bandura 1986, 1997). In the previous literature, researchers found relationships between self-efficacy sources and various academic variables including mathematics achievement, English language achievement, French language achievement (Joët, Ellen & Pascal 2011; Usher 2009; Usher & Pajares 2009). However, there is scarcity of research related to the relationship among self-efficacy sources and English reading comprehension. For that reason, this study aimed to establish the role of 'self-efficacy sources' in 'reading comprehension' by using 'reading self-efficacy beliefs' as a mediating variable. The next section presents the research objectives of the current study.

RESEARCH OBJECTIVES

This research intends to attain subsequent objectives:

1. To determine the extent of correlation between four self-efficacy sources and reading self-efficacy beliefs among Saudi EFL learners.
2. To determine the extent of correlation between reading self-efficacy beliefs and reading comprehension among Saudi EFL learners.

3. To determine the mediating role of reading self-efficacy beliefs between four self-efficacy sources and reading comprehension among Saudi EFL learners.

CONCEPTUAL FRAMEWORK

The proposed conceptual framework of the current study is shown in Figure 1. As evident from Figure 1, this study consisted of four independent variables, i.e., 'mastery experience' (ME), 'vicarious experience' (VE), 'verbal persuasion' (VP), and 'physiological state' (PS). Moreover, 'reading self-efficacy beliefs' (RSEB) acted as a mediating variable. Lastly, 'reading comprehension' (RC) was the dependent variable.
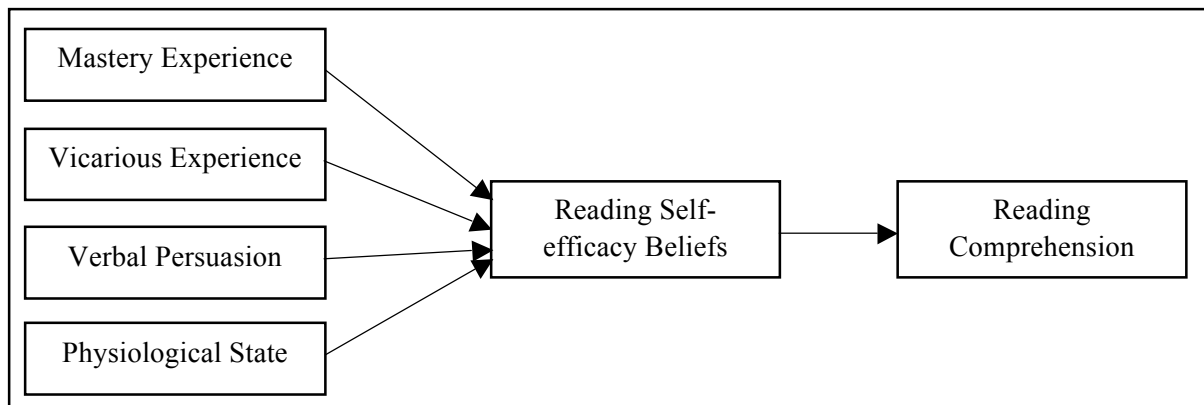

FIGURE 1. Conceptual Framework

As already explained in the previous section, there is no direct association among self-efficacy sources and reading comprehension in the past literature. However, after reviewing the literature, it was established that there was a substantial association among self-efficacy sources and reading self-efficacy beliefs (Arslan 2012; Chen & Usher 2013; Kaya & Bozdag 2016; Lin 2016; Lin & Tsai 2018; Phan & Ngu 2016) and also between reading self-efficacy and reading comprehension (Al Ghraibeh 2014; Galla et al. 2014; Ghabdian & Ghafournia 2016; Habibian & Roslan 2014; Hedges & Gable 2016; Lee & Jonson-Reid, 2016; Oh 2016; Osman et al. 2016; Rachmajanti & Musthofiyah 2017; Salehi & Khalaji, 2014; Tabrizi & Jafari 2015). According to Preacher et al. (2007), mediation (M) takes place when the causal effect of an independent variable (X) on a dependent variable (Y) is transferred by a mediating variable (M). In simple terms, if M is influenced by X and Y is influenced by M, then in turn, Y is influenced by X. Thus, 'reading self-efficacy beliefs' was employed as a mediator between 'self-efficacy sources' and 'reading comprehension'.

Numerous studies used self-efficacy as a mediator (Bates & Khasawneh 2007; Coutinho & Neuman 2008; Diseth 2011; Fast et al. 2010; Galla et al. 2014; Keskin 2014; Phan & Ngu 2016; Poortvliet & Darnon 2014; Wilson & Kim 2016). Particularly, 'reading self-efficacy' was also used as a mediating variable between reading instruction and reading amount (Lau 2009). However, according to researcher's best knowledge, there is a shortage of studies in which 'reading self-efficacy' was used as a mediating variable between 'self-efficacy sources' and 'reading comprehension'. Thus, 'reading self-efficacy' was used as a mediator in the current research.

LITERATURE REVIEW

SELF-EFFICACY BELIEFS AND SELF-EFFICACY SOURCES

The previous studies determined the connection among self-efficacy sources and self-efficacy beliefs in various domains. For instance, several researchers determined the relationship between two variables in the domain of science (Britner & Pajares 2006; Chen & Usher 2013; Lin & Tsai 2018). All of the three studies revealed a substantial connection between self-efficacy sources and science self-efficacy beliefs. Additionally, few researchers conducted studies regarding the association of these two variables in the domain of mathematics (Joët et al. 2011; Kaya & Bozdag 2016; Phan 2012; Usher & Pajares 2009). The rest of the researchers conducted studies regarding self-efficacy sources in several domains including learning, English language, teaching, and writing (Arslan 2012; Hampton & Mason 2003; Kudo & Mori 2015; Lin 2016; Phan & Ngu 2016; Pajares et al. 2007; Tschannen-Moran & McMaster 2009). Majority of the aforementioned studies concluded that there exists a significant connection among self-efficacy sources and self-efficacy beliefs.

From the review of the above studies, it is worth mentioning that majority of the studies focused on science and mathematics self-efficacy sources. It was revealed that there was dearth of research regarding the connection among reading self-efficacy sources and reading self-efficacy beliefs (Shehzad, Hamzah, & Rawian 2018). Also, Cantrell et al. (2013) suggested to the future researchers that research ought to be conducted to find the association between self-efficacy sources and reading self-efficacy beliefs which will consequently enrich the insights regarding the self-efficacy construct. The researcher of the present research considered the recommendations given by Cantrell et al. (2013) and consequently examined the connection among self-efficacy sources and reading self-efficacy beliefs.

The current section has reviewed the studies related to self-efficacy sources with various academic variables. The next section reviews the studies regarding the association among self-efficacy beliefs and reading comprehension.

SELF-EFFICACY BELIEFS AND READING COMPREHENSION

A plenty of studies were piloted to examine the connection among self-efficacy beliefs and reading comprehension. Majority of the researchers considered primary school students as their study's sample (Aro et al. 2018; Carroll & Fox 2017; Coddington & Guthrie 2009; Galla et al. 2014; Liew, McTigue, Barrois & Hughes 2008; Lee & Jonson-Reid 2016; Solheim 2011; Wilson & Kim 2016). All of the aforementioned studies found significant association between two variables except two studies (i.e., Carroll & Fox 2017; Wilson & Kim 2016), which found insignificant relationship between self-efficacy and reading comprehension.

Furthermore, numerous studies were conducted on high school students (Booth et al. 2017; Guthrie, Klauda & Ho 2013; Hedges & Gable 2016; Klassen 2010; Liem, Lau & Nie 2008; Mucherah & Yoder 2008; Murad Sani & Zain 2011; Osman et al. 2016; Salehi & Khalaji 2014; Schöber et al. 2018; Su & Wang 2012; Tobing 2013). All of the above-mentioned studies found significant association between self-efficacy beliefs and reading comprehension except on study (i.e., Booth et al., 2017), which found an insignificant relationship.

In addition, various studies were conducted in a university setting (Al Ghraibeh 2014; Ghonsooly 2010; Habibian & Roslan 2014; Naseri & Ghabanchi 2014; Naseri & Zaferanieh 2012; Oh 2016; Shang 2010; Tabrizi & Jafari 2015; Yoğurtçu 2013). All of the aforementioned studies revealed a significant connection between self-efficacy and reading comprehension except Yoğurtçu's (2013) study. Yoğurtçu (2013) found that reading

comprehension self-efficacy was associated to reading comprehension skills for high self-efficacious students. However, for low self-efficacious students, there was no significant relationship between the two variables.

Lastly, few researchers conducted studies on students attending English language learning institutions (Ghabdian & Ghafournia 2016; Piran 2014; Rachmajanti & Musthofiyah 2017). Out of these three studies, only Piran (2014) found an insignificant connection among self-efficacy and reading comprehension.

METHODOLOGY

RESEARCH DESIGN

The current study employed a quantitative research approach due to nature of research objectives. Furthermore, in accordance with the research objectives, a correlational research design was used.

SAMPLING

According to Creswell (2003), population is a group of entities that have same attributes that differentiates them from other groups of entities. Therefore, the population of the present study was all male Saudi Preparatory-Year-Programme (PYP) students studying in government universities in the central province of KSA. The central province has eight government universities for male students, i.e., King Saud University, Qassim University, Shaqra University, Majmaah University, Prince Sattam Bin AbdulAziz University, King Saud Bin AbdulAziz University for Health Sciences, Al-Imam Mohammed Ibn Saud Islamic University, and Saudi Electronic University. In order to collect data from PYPs of aforementioned eight universities, proportionate stratified random sampling was employed. Furthermore, a certain proportion of sample was selected from each of the eight universities (stratas) based on their respective population. For instance, the proportion of sample of 'Al-Imam Mohammed Ibn Saud Islamic University' was highest due to the reason that it had highest population as compared to other universities (refer to Table 1).

TABLE 1. *Proportion of Quantitative Sample*

No.	Name of University	Population	Percentage	Questionnaires Distributed
1	King Saud University	953	21.33%	75
2	Qassim University	750	16.79%	59
3	Shaqra University	357	7.99%	28
4	Majmaah University	313	7.00%	25
5	Prince Sattam Bin AbdulAziz University	187	4.18%	16
6	Al-Imam Mohammed Ibn Saud Islamic University	1115	24.96%	88
7	King Saud Bin AbdulAziz University for Health Sciences	387	8.66%	30
8	Saudi Electronic University	404	9.04%	32
	TOTAL	4,466	100%	351

Regarding sample size, the present study followed the sampling table presented by Krejcie and Morgan (1970). The sampling table indicates that, for the population of 4500, the appropriate sample is 351. Thus, the sample of the current study was 351 Saudi EFL students.

INSTRUMENT

In order to test the relationship among self-efficacy sources, reading self-efficacy beliefs, and reading comprehension, three self-administered questionnaires were used. 'Questionnaire for sources of reading self-efficacy' adapted from Usher & Pajares (2009) was used to gather data regarding four independent variables (i.e., mastery experience, vicarious experience, verbal persuasion, and physiological state). It comprised 18 items. More particularly, mastery experience was assessed by four items (i.e., ME1, ME2, ME3, ME4), vicarious experience was measured by six items (i.e., VE1, VE2, VE3, VE4, VE5, VE6), verbal persuasion was assessed by four items (i.e., VP1, VP2, VP3, VP4), physiological state was assessed with four items (i.e., PS1, PS2, PS3, PS4). Secondly, with the aim of collecting data regarding reading self-efficacy, 'reading self-efficacy beliefs questionnaire' adapted from Tobing (2013) was employed. It contained 10 items (i.e., RSEB1 to RSEB10). Lastly, an 'International English Language Testing System' (IELTS) (Academic) reading comprehension test was conducted in order to gather data regarding reading comprehension (i.e., dependent variable). IELTS reading comprehension test was adopted from a book named 'IELTS Reading Tests' (McCarter & Ash, 2001). The aforementioned book consisted of ten reading tests and each test comprised three reading passages. The researcher adopted four reading passages randomly from the book. Furthermore, each passage comprised five Multiple Choice Questions (MCQs). All the four reading passages comprised distinct content. For instance, the first passage was about creativity in human beings. The second passage was about the issue of dropout of students from educational institutions. Furthermore, the third passage was about the issue of global warming. Lastly, the fourth passage was about the importance of communication skills among medical doctors.

STATISTICAL ANALYSES

To tryout the acceptability of the proposed model, this study employed Path analysis using AMOS 23 (Bentler & Wu, 2005). Models of the study were assessed with the standardised coefficients attained by maximum likelihood estimation. Besides chi-square test statistics, goodness of fit of each path model was evaluated from multiple fit indices (Bentler, 2007) such as comparative fit index (CFI), the root mean squared residual (RMSEA), and the standardized root-mean-square test (SRMR), since the chi-square test is subtle to size of the sample (Bergh, 2015). For CFI, a value higher than .90 indicates a good fit; however, higher than .95 is considered ideal. For SRMR and RMSEA, a value below .05 indicates a good fit, whereas values up to .08 indicate acceptable errors of approximation (Bentler, 2007).

RESULTS

PRELIMINARY ANALYSES

Correlations, standard deviations, and means of all the measures are displayed in the Table 1. The amount of missing data was small not more than 3% across scales and was replaced with item-mean substitution method. Previous researchers have suggested to use item-mean substitution when the amount of missing value is less than 10% (Tabachnick & Fidell, 2007). Skewness and Kurtosis exhibited univariate normality ranging between -1 and 1. After removing seven participants (multivariate outliers), this study's data demonstrated multivariate normality (Stevens, 1996).

MAIN ANALYSES

The model tested in the present study is composed of six latent variables. That are mastery experience, vicarious experience, verbal persuasion, physiological state, reading self-efficacy beliefs, and reading comprehension. A composite score was calculated for each variable with their corresponding items and paths were specified according to the hypotheses.

Structural equation modelling analyses (path analyses with observed variables) was performed using the maximum likelihood estimation procedure in AMOS v 23 (Byrne, 2016). Model fit was evaluated employing a normed chi-square test (i.e. the chi-square value divided by degrees of freedom) as it is sensitive to sample size (Kline, 2011). Model fit was assessed using the following indices: The Standardized Root Mean Square Residual (SRMR), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA). A normed chi-square value smaller than 3.0 (Bollen, 1989), root mean square error of approximation (RMSEA) value smaller than or equal to .08 (Kline, 2011), the comparative fit index (CFI) equal to or larger than .90 represent an acceptable fit (Kline, 2011; Tabachnick & Fidell, 2007).

As shown in Figure 2, the hypothesized model provided an adequate fit χ^2 (4) = 4.39; CFI=.96; RMSEA=.09; SRMR=.03. Reading self-efficacy beliefs was predicted by mastery experience, vicarious experience, verbal persuasion, physiological state which in turn predicted reading comprehension.
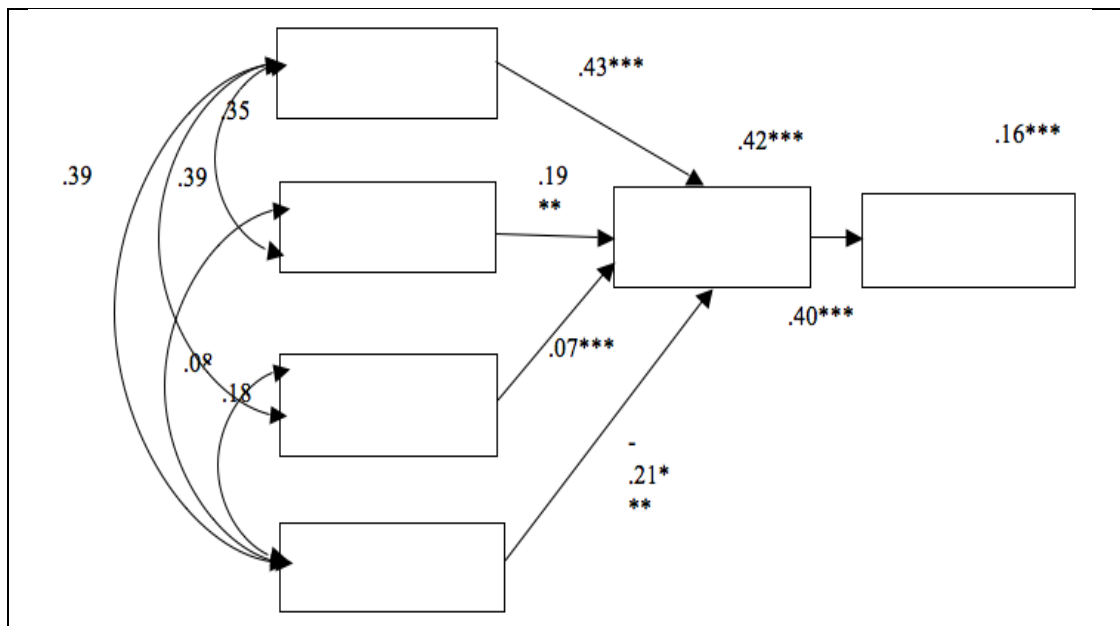

FIGURE 2. Structural equation model results. Path coefficients are presented as standardized coefficients. † ***p<.001.

To evaluate the significance of the indirect effects, bias-corrected bootstrap confidence intervals were computed in AMOS 23.0 at a confidence interval of 95%. Mediation effect was found significant. Results shown in Figure 2 revealed that 'mastery experience' positively predicted 'reading self-efficacy beliefs (β .43, p<.001). Moreover, 'vicarious experience' (β .19, p<.001) and physiological state positively predicted (β.07, p<.001), however, 'verbal persuasion' negatively predicted (β .21, p<.001) 'reading self-efficacy' which in turn positively predicted (β .42, p<.001) 'reading comprehension'. Altogether the predictor explained 16 % of the variance of 'reading comprehension'.

DISCUSSION

The findings of the first research objective indicated that three out of four reading self-efficacy sources, i.e., 'mastery experience', 'vicarious experience', and 'verbal persuasion' were significantly associated with 'reading self-efficacy beliefs'. However, 'physiological state' was negatively and significantly associated with 'reading self-efficacy beliefs'. In the subsequent paragraphs, the above-mentioned findings are discussed considering previous studies.

As stated above, 'mastery experience' was significantly correlated with 'reading self-efficacy beliefs'. Also, the direction of the relationship was found to be positive. In simple words, the findings indicated that previous reading experiences of the Saudi EFL learners boosted their reading self-efficacy beliefs. Cantrell et al. (2013) affirmed that individuals who encountered positive successful experiences in the past have a greater level of self-efficacy than those who encountered negative and unsuccessful experiences. The effect of mastery experience on performance was also explained by 'social cognitive theory' (Bandura, 1986). It affirmed that learners generate self-efficacy beliefs from their past experiences. The past experiences could be positive as well as negative. Positive mastery experiences (achievements) boost self-efficacy, whereas, negative mastery experiences (failures) lower self-efficacy beliefs among learners. Consequently, self-efficacy affects the performance of the individuals (Bandura, 1986, 1997). Thus, the current study's findings could be attributed to the possibility that Saudi EFL students might have experienced positive mastery experience related to reading, which were responsible for increasing their reading self-efficacy beliefs. This finding is consistent with a number of studies (Arslan, 2012; Chen & Usher, 2013; Kaya & Bozdag, 2016; Kiran & Sungur, 2012; Kudo & Mori, 2015; Lin, 2016; Lin & Tsai, 2018; Phan, 2012; Phan & Ngu, 2016; Shehzad, Alghorbany, Lashari, Lashari, & Razzaq, 2019; Usher & Pajares, 2009). The aforementioned speculation requires further approval from future studies.

Furthermore, 'vicarious experience' was significantly associated with 'reading self-efficacy beliefs' (β 0.077; t=2.043). Furthermore, the relationship was positive. In other words, the findings indicated that whenever Saudi EFL learners observed their peers or other models performing well in reading, their reading self-efficacy beliefs increased. This finding is supported by several other studies (Britner & Pajares, 2006; Chen & Usher, 2013; Kaya & Bozdag, 2016; Lin, 2016; Lin & Tsai, 2018; Phan & Ngu, 2016; Shehzad et al., 2019; Tschannen-Moran & McMaster, 2009). 'Social cognitive theory' also affirmed that one can observe other successful peers/role models and their success can persuade one to believe that one can accomplish similar task (Bandura, 1986). However, regarding models in a learning environment, greater self-efficacy can be achieved by the learners in completing a specific academic task by observing more relevant models, i.e., peers instead of unrealistic models, i.e., teachers. As the level of skills of the teachers is far higher as compared to the skills' level of the learners, the learners are convinced in doing the similar task again when they observe their peers who are on the same level in terms of skills as compared to observing the teachers of different skills level. In addition to the skills, related characteristics (age, sex and ethnic background) of the peer models can be influential factors. Therefore, the models that are more related to the learners can have a higher influence on their self-efficacy beliefs and performance (Schunk & Hanson, 1985; Schunk, 1987). In the present study, the sample comprised Saudi EFL learners. All of them were in the same class and shared similar educational level and nationality. Thus, it can be speculated that when they observed positive models in their class, in turn, their reading self-efficacy was elevated. Their teachers also encouraged loud reading in classes in the PYP. This activity provided the EFL learners with the opportunity of observing others' loud reading skills. As a consequence, this might have

positively affected their reading self-efficacy. This conjecture needs further validation from future researchers.

Moreover, results indicated that 'verbal persuasion' was positively and significantly correlated with reading self-efficacy beliefs. In simple terms, Saudi EFL learners reading self-efficacy beliefs boosted after receiving feedback from their parents, teachers or peers regarding their reading skill. This finding is supported by Bandura's (1986) social cognitive theory which indicated that feedback from important people of a person's life is the key factor of boosting his/ her self-efficacy. The probable rationale behind this finding could be that PYP teachers might have dealt with their students professionally. The majority of the PYP teachers are highly qualified and professionally trained. It is in their training to encourage their students and make them confident which consequently improves the reading comprehension performance of their students. On the other hand, it is a natural phenomenon that if the learners are appreciated, they would feel encouraged and subsequently their performance would get affected positively and vice versa. This finding is supported by numerous past studies which indicated that positive feedback was the source of gaining self-efficacy (Butz & Usher, 2015; Fong & Krause, 2014; Shehzad et al., 2019; Usher, 2009). One of the interviewees in Butz and Usher's (2015) study shared that she felt extremely confident after she was praised by her teachers and consequently, she performed well in subsequent exams. Similarly, Fong and Krause (2014) found that encouragement from teachers gave confidence and immense boost to the learners in performing well in future. Lastly, in Usher's (2009) study, most of the interviewees revealed that their confidence level was elevated whenever they heard words of encouragement from their teachers and parents. Aforementioned studies support the fact that positive feedback had a positive influence on the performance of the learners. However, feedback ought to be authentic and convincing. Penny Ur (1996), a well-known EFL teacher, cautions that the positive feedback passed by the teacher can be devaluated by the learner if it is used excessively. Sometimes, the learners assume that excessive positive feedback is not genuine and consequently they don't get stimulated by it. As a matter of fact, clichéd and unauthentic feedback can instigate annoyance among learners (Penny Ur, 1996). Similarly, mediocrity should not be appraised or else the learners would get used to the average performances and would not push themselves harder towards excellence (Penny Ur, 1996). Thus, the current study's findings and previous literature indicated that Saudi EFL students' self-efficacy in reading comprehension increased due to positive feedback from teachers and peers.

Additionally, the results indicated that 'physiological state' is negatively and significantly correlated with reading self-efficacy beliefs. In other words, increase in anxiety level among Saudi EFL learners, decreases their reading self-efficacy and vice versa. This finding is in accordance with social cognitive theory as well as previous literature (Bandura, 1986, 1997; Lin & Tsai, 2018; Macayan, Quinto, Otsuka, & Cueto, 2018; Phan, 2012; Usher & Pajares, 2006; Yurt, 2014). Yurt (2014) indicated that there are individuals who do not consider themselves prepared and appropriate for a task under excessive stress and anxiety which consequently effects their self-efficacy beliefs negatively for that task. This finding could be attributed to the fact that Saudi students learn English as a foreign language. Therefore, they might get anxious while performing EFL reading tasks and consequently their reading self-efficacy decreases.

Regarding the findings of the second research objective, it was found that 'reading self-efficacy' was positively and significantly correlated with 'reading comprehension' of Saudi EFL learners. In simple words, the findings indicated that the 'reading comprehension' performance of the Saudi EFL students improved with the increase in their 'reading self-efficacy beliefs'. The possible speculation of current study's finding could be attributed to the usage of strategies by Saudi EFL learners while reading. A substantial amount of research in

reading English as a foreign language (EFL) settings (e.g., Kargar & Zamanian, 2014; Li & Wang, 2010; Nosratinia et al., 2014; Tuncer & Dogan, 2016; Uçar, 2016) concluded that readers having high reading self-efficacy tend to employ various strategies while coping with reading activities. For example, they set aims, manage their time appropriately, and employ cognitive and metacognitive strategies including "making inferences, note-taking, elaboration, grouping, deduction, and transferring" (Li & Wang, 2010, p. 153). These strategies as a consequence improve readers' accomplishments in reading tasks. The aforementioned speculation requires further investigation from future researchers. Furthermore, this finding is supported by theoretical principles of social cognitive theory. It asserted that out of all the psychological variables, self-efficacy is the most substantial predictor of academic success (Bandura, 1977). Also, this finding is in line with numerous past studies (Al Ghraibeh, 2014; Galla et al., 2014; Ghabdian & Ghafournia 2016; Guthrie, Klauda, & Ho 2013; Habibian & Roslan 2014; Hedges & Gable, 2016; Lee & Jonson-Reid, 2016; Naseri & Ghabanchi, 2014; Oh, 2016; Osman et al., 2016; Rachmajanti & Musthofiyah, 2017; Salehi & Khalaji, 2014; Tabrizi & Jafari, 2015; Tobing, 2013).

Lastly, the results of the third research objective indicated that 'reading self-efficacy beliefs' successfully mediated the association between four 'self-efficacy sources' and 'reading comprehension'. This finding is supported by social cognitive theory (Bandura, 1986). According to aforementioned theory, self-efficacy beliefs are generated from four sources including mastery experience, vicarious experience, verbal persuasion, physiological state which in turn affect the performance of individuals (Bandura, 1986, 1997).

IMPLICATIONS

This section provides several theoretical and practical implications. Firstly, in the current study, the association of 'self-efficacy sources' with 'reading comprehension' was investigated via mediation. Previously, several studies indicated that 'self-efficacy sources' are significant predictors of numerous types of achievements (i.e., academic achievement, mathematics achievement, English achievement, and science performance) (Arslan, 2012; Kaya & Bozdag, 2016; Williams, 2017; Yurt, 2014; Zarei & Naghdi, 2017). However, there was a shortage of studies regarding the relationship of 'self-efficacy sources' and 'reading comprehension'. The findings indicated that self-efficacy sources are significant predictors of reading comprehension of Saudi EFL learners. These findings could be beneficial for EFL teachers and students. EFL teachers can incorporate these self-efficacy sources in their students to improve their reading comprehension. Moreover, this study contributed to 'social cognitive theory' (SCT). SCT has been used in numerous research fields. However, more specifically, in EFL, the current research is first of its nature which employed SCT to examine the connection among 'self-efficacy sources' and 'reading comprehension'. Thus, the current study has helped to enlarge the scope of SCT.

Secondly, rigorous literature review indicated that 'self-efficacy sources' were correlated with several kinds of self-efficacy, i.e., science self-efficacy, mathematics self-efficacy, academic self-efficacy, learning self-efficacy, French language self-efficacy, English language self-efficacy, writing self-efficacy, listening self-efficacy (Chen & Usher, 2013; Joët et al., 2011; Lin, 2016; Lin & Tsai, 2018; Pajares et al., 2007; Phan, 2012; Phan &Ngu, 2016; Usher & Pajares, 2009). However, limited research was conducted on the relationship of 'self-efficacy sources' and 'reading self-efficacy beliefs'. Also, Cantrell et al. (2013) recommended that in order to generalise the self-efficacy variable, there is a need to conduct more research regarding the connection between 'self-efficacy sources' and 'reading self-efficacy beliefs'. Thus, the current study examined the roles of 'reading self-efficacy sources' in 'reading self-efficacy beliefs' to fill a gap in the body of literature. The findings

of the current study disclosed that all the four self-efficacy sources were substantially associated with 'reading self-efficacy beliefs'. These findings could be potentially beneficial for the EFL teachers. Self-efficacy beliefs influence the performance of the learners (Bandura, 1986, 1997). Thus, EFL teachers can inculcate self-efficacy sources in their pupils to raise their reading self-efficacy beliefs. Regarding the first self-efficacy source, i.e., mastery experience, the teachers should remind the students about their previous accomplishments related to reading in order to boost their reading self-efficacy beliefs. Likewise, regarding the second self-efficacy source, i.e., vicarious experience, the teachers ought to introduce positive models in front of their pupils so that the pupils can observe those models related to reading and consequently increase their reading self-efficacy. Moreover, regarding the third self-efficacy source, i.e., verbal persuasion, the students should be provided positive feedback related to their reading skills in order to elevate their reading self-efficacy beliefs. Lastly, regarding the fourth self-efficacy source, i.e., physiological state, the teachers should try to decrease the anxiety among students in order to increase the level of their reading self-efficacy.

LIMITATIONS

The current study has several limitations. Firstly, in the present study, data was collected from male students only. However, female students were not included due to the cultural limitations. Saudi educational system does not allow intermingling of opposite genders. For that reason, both gender groups attend separate educational institutions from school up to university levels. As the researcher had access to male university students, consequently, findings of the current study can be generalised to male students only.

Secondly, the sample of the study consisted of Saudi EFL students of government universities. Thus, the current study's findings cannot be generalised to the students of private universities. Furthermore, the sample of the study consisted of 'Preparatory-Year-Programme' (PYP) students. Thus, the generalisation of the findings of current study to other departments/disciplines could be dubious.

Thirdly, in terms of measurement of 'reading comprehension' (i.e., dependent variable), only MCQs were extracted from IELTS reading exam. However, there were some other items found in IELTS reading exam, i.e., true/false statements, fill in the blanks, etc. Aforementioned items, if added in the current study's reading comprehension test, could have offered a comprehensive scope for the participants of this study to reflect their reading comprehension skills, and consequently, an extra comprehensive picture of Saudi EFL learners' reading comprehension performance could have been drawn.

Lastly, the current study was quantitative in nature. Therefore, there is a need to conduct studies based on qualitative or mixed-methods research design to get a deeper perspective of the phenomena. More particularly, the future researchers ought to conduct interviews to explore the factors responsible for the relationship between current study's variables.

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