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Language Learning Strategy Instruction in Saudi Arabia: A Systematic Review

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Abstract

Strategy instruction is essential in the literature of language learning/learner strategies. This paper employs a literature review to determine how much strategy instruction is addressed in language learning research in Saudi Arabia, how many instruments have been used and what kind of strategies are taught. A search was conducted on articles from 1950 to 2020 through the Saudi Digital Library. From an initial 297 records, 17 (5.7%) studies met the review criteria. This small number reflects the shortage of language learning strategy instruction in Saudi Arabia. The reviewed studies also targeted different variables in their strategy instructions, which shows that they were developed based on personal discretion. The most taught strategies are reading strategies and then vocabulary/spelling strategies. The least taught strategies, however, are social and motivational strategies. Only one of the studies utilized a standardized measure for one of its dependent variables after instruction. Thus, it was difficult to make comparisons across the studies. It is recommended that Saudi strategy researchers include strategy instruction in their investigation of language learning strategies and calculate the duration of their instruction in hours for clarity. They should also explain in detail what intervention is used, why and how they conducted the instruction. In addition, strategy instruction is a demanding task that requires a multi-method data collection approach.

Keywords: language learner strategies, strategy intervention, Saudi learners, strategic learning, strategy instruction, systematic review

Introduction

There is a huge corpus of studies exploring issues related to the difficulties that Saudi learners face in language learning. However, the main objective of this review article is to find out and discover how many effective interventions have been undertaken by Saudi researchers, how many instruments have been used to measure their effectiveness and what kind of strategies are taught in those interventions. These are the three main research questions of this systematic review. We need to determine what we can do to make our students strategic leaners with strategic competence.

As demonstrated from this review of literature, numerous studies have provided evidence for the importance of strategy instruction. However, researchers (Alzahrani, 2017; McMullen, 2009) have identified a paucity of studies in language learning strategy instruction in Saudi Arabia, and the importance of the current investigation comes from the fact that it aims to ascertain changes in the situation. In addition, previous reviews of studies in strategy instruction (Arhin & Opoku, 2020; Donker, de Boer, Kostons, Dignath van Ewijk & van der Werf, 2014; Plonsky, 2011) did not include studies from Saudi Arabia. By measuring how much this topic is addressed, researchers then can measure the effectiveness of strategy instruction, particularly in a Saudi context.

Literature Review

The subject of "Language Learners' Strategies" was and still is an important topic of discussion in the field of second language learning and teaching. It has emerged as one of the research topics since the seventies of the last century and developed due to the need for global communication, and somewhat as a result of the revolutionary theories of Noam Chomsky and his view of language as an instinctive mental ability (Grenfell & Harris, 2017). The beginnings of research in this field were heavily involved in tracking and exploring the strategies of good language learners; assuming (albeit partially) that examples of good strategies could help poor leaners (Grenfell & Harris, 2017). From this point, the interest in strategy instruction started. However, as learning strategies vary, so do definitions of strategy instruction. Cohen (2005) addressed how experts vary in their thinking about Language Learning Strategy (LLS) terms. This might be related to the lack of general agreement on what strategies to introduce, when and how to introduce them, and who can introduce them. However, strategy instruction might be simply defined as classroom procedures where the teacher explicitly raises learners' awareness of their *own* learning strategies and incorporates LLSs and language use strategies in language teaching (Chamot, Barnhardt, El-Dinary, & Robbins, 1999; Oxford, 2011).

Strategy instruction has been clearly called for by LLS scholars and experts such as Donker et al. (2014), Oxford (1990), Grenfell and Harris (1999), Chamot (2009), Harris (2007), Macaro (2009), and Gu (2010) (cited in Oxford, 2011), Cohen (2011), and Veenman (2017). In addition, strategy instruction is essential in the notions of autonomy, learning how to learn, and self-directed learning (Rubin, 2001; Wenden, 1991, 2002; Zhang, 2008). Good strategy instruction is believed to have a positive impact on language learners' success, achievement, and proficiency (Alzahrani, 2017; Brown, Pressley, Van Meter, & Schuder, 1996; Cohen, 2011; Cubukcu, 2008; Grenfell & Harris, 1999, 2017; Macaro, 2001; Mizumoto & Takeuchi, 2009; O'Malley & Chamot, 1990; Oxford, 1990, 2011; Sengupta, 2000). However, this positive outlook on strategy instruction has been challenged by some researchers (Bialystok, 1990; Chularut & DeBacker, 2004; Dörnyei, 2005;

Ellis, 2008; Kellerman, 1991; Rees-Miller, 1993; Rossiter, 2003). Kellerman (1991) wrote, "teach the learners more language and let strategies look after themselves" (p. 158). Similarly, Bialystok (1990) argued that "what one must teach students of a language is not strategy, but language" (p. 147). Consequently, researchers must do more strategy interventions to enrich the literature of this domain.

Strategy instruction is a demanding task. It requires administering various measures, such as pretests/posttests, experiment groups, ongoing assessments, thinking aloud, interviews, and portfolios to track how learners have incorporated strategy teaching into their regular learning (Cohen, 2005).

Many designs have been proposed for teaching strategies to students and conducting strategy instruction courses. The start might be with the Cognitive Academic Language Learning Approach (CALLA), which was developed by Chamot and colleagues in the mid-1980s (see Chamot, 2009). In addition, a course called Learning to Learn English: A Course in Learner Training was one of the first strategy-based instruction programs, and it was developed by Ellis and Sinclair (1989). Cohen and his team also conducted a well-known program in Strategy-Based Instruction (SBI) at the University of Minnesota in 2001. Another well-known program is Oxford's model for long-term strategy training, which was developed in 1990 and updated in 2006. There are other programs that are also well designed and conducted, such as the six-step cycle model of Grenfell and Harris (1999) and the cyclical model of Macaro (2001).

Methodology (A systematic Review)

The review was comprehensive and started from general to specific to carefully narrow down the search step by step (see Figure one), starting from strategy studies in academic journals from 1950 up to 2020 through the Saudi Digital Library. Then, the search was narrowed down to specific subject areas, as shown in the diagram below. After limiting the search to the geography of Saudi Arabia, articles that were not in language strategies were excluded after title screening. Next, articles were excluded after abstract and conclusion screening due to the following reasons: no strategy instruction, not in LLSs, and participants were not Saudi learners. A total of 17 articles investigated strategy interventions in language learning, and thus, were eligible for the review.
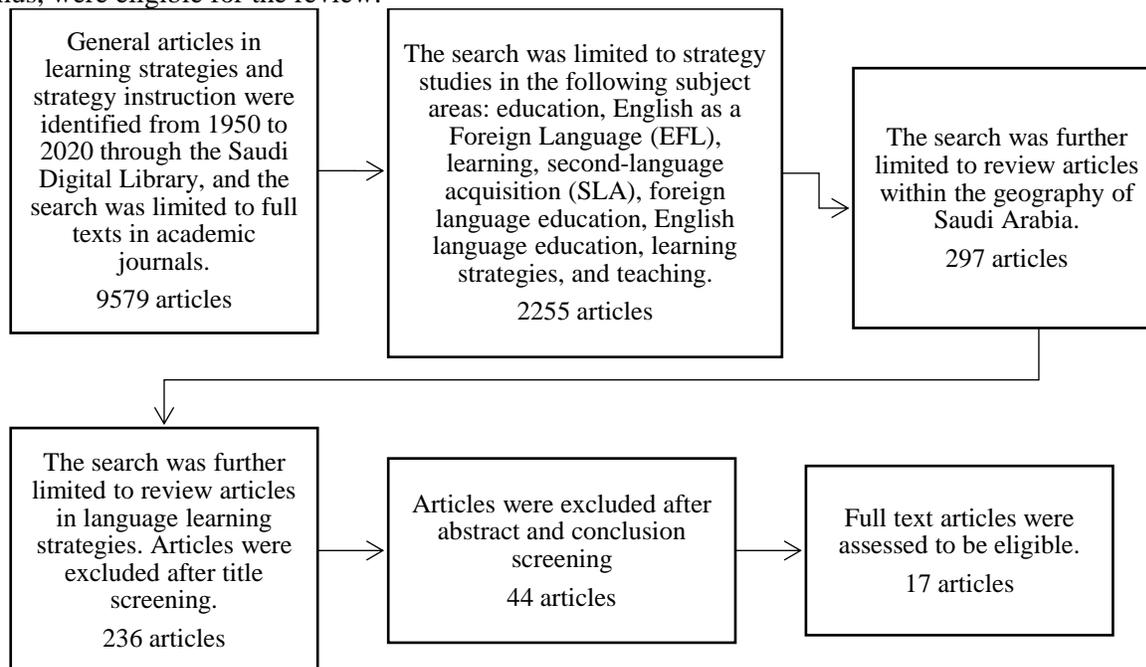

Figure 1. The review procedure

From an initial 297 records, 17 (5.7%) studies met the review criteria. This small number reflects the shortage of language learning strategy instruction in Saudi Arabia.

It was difficult to identify the eligibility of the articles for the review, as there is no clear-cut definition for strategies and techniques, strategy instruction, and instructional strategies or classification model for teaching strategies. In addition, the contents of the lessons taught in most of those interventions were not described in detail. Studies in strategy interventions should explain exactly what they did and why if they are to be replicated or compared (Plonsky, 2011).

Results
General Findings

The reviewed articles were published in 12 journals, with three journals publishing more than one article: *Arab World English Journal* (n = 3), *Journal of English Language Teaching* (n = 3), and *Canadian Center of Science and Education* (n = 2). A total of 1477 individuals participated in the reviewed studies, of which 456 were female and 1021 were male, and of which 1435 were college/university students and 42 were elementary school students. The reviewed studies targeted different variables in their strategy instructions or interventions (see Table one). In addition, they targeted almost all language learning strategies except the affective and emotional strategies.

Table 1. *Strategies taught in the reviewed studies*

Taught strategies	Number of studies	Percentage
Writing strategies	2	12%
Reading strategies	7	41%
Speaking/Pronunciation and Communication strategies	2	12%
Social strategies	1	6%
Vocabulary/Spelling strategies	4	24%
Motivational strategies	1	6%
Total	17	100%

All of the reviewed studies (except Alrasheed, 2014) reported a positive effect of the strategy interventions, finding that the experimental group outperformed the control group in the dependent variables. However, only six reported a calculation for the effect size of their results (see Table two). Following Cohen (1988), the value of the effect size ($\eta2$) was interpreted in the following way: $0.01: < 0.06$ = small effect; $0.06: < 0.14$ = medium effect, and ≥ 0.14 = large effect. As a result, based on the reported values in the six studies, the effect sizes of their affected variables were large.

Table 2. *Reported effect size in six of the reviewed studies*

Studies	Effect size of the affected variables after instruction
Alrabai (2016)	(η^2_p = 0.31, 0.38, 0.81)
Ismaiel and Al Asmari (2017)	(η^2 = 0.154, 0.149)
Abdelhalim (2017)	(η^2 = 0.45, 0.94)
Khodary (2017)	(η^2 = 0.894, 0.91)
Alzubi and Singh (2018)	(η^2 = 0.392)
Alzubi et al. (2019)	(η^2 = 0.622)

Only Alzubi, Singh and Hazaea (2019) and McMullen (2009) followed one of the well-designed programs mentioned in the literature above. Another important observation was the length of instruction in almost all the reviewed studies. Listing the duration in weeks or months might be misleading, as the number and length of meetings can vary, which may cause differing results. The longest instruction among the reviewed studies was that of Khodary (2017), which lasted for 77 h over 11 weeks. The shortest was that of Alrasheed (2014), which was 4 h only.

Furthermore, some of the reviewed studies displayed contradictions between the findings and the drawings on the findings. An example of this is Alrasheed's study (2014). Although the study found no statistically significant differences in the effectiveness of the pre-reading strategies on reading comprehension, Alrasheed (2014) indicated in the conclusion that "the employment of pre-reading strategies is highly recommended" (p. 89). In addition, the similarity between the two studies of Alzubi et al. (2019) and Alzubi and Singh (2018) raises the issue of credibility. Those studies were conducted in the same year (2017–2018 fall academic year) and on the same students. The second study did not cite or even mention the first. In addition, some identical sentences appeared in these two studies and created confusion about the length of the instruction.

Moreover, there was an absence of authentic citations in one of the reviewed studies (Okasha & Hamdi, 2014). It investigated the effect of writing strategies without using a single authentic citation from that field. It also investigated the attitudes without referring to the validity and the reliability of the used instrument. In addition, there are other critical issues in the methodology of some of the reviewed studies that go beyond the scope of the current review.

Research Methods Used in the Reviewed Studies
The designs of the reviewed studies were mostly quasi-experimental (n= 8) and experimental (n= 7). In addition, reliability of the instruments used were reported in 13 of the reviewed studies, leaving only four studies that did not mention anything about the reliability or the validity of their research instruments (Alqarni, 2018; Assiri & Siddiqui, 2020; Nahari & Alfadda, 2016; Okasha & Hamdi, 2014). The data collection methods adopted in the current reviewed studies, which used strategy instruction and interventions, are summarized in Table three.

Table 3. *Research instruments used in the reviewed studies*

Instruments for measuring dependent variables	Number of studies	Percentage
One (Survey tools or tests)	9	53%
Two (Survey tools and tests)	6	35%
Three (Survey, tests, and interview/observation)	2	12%
Think-aloud Protocols	0	0
Total Number of Studies	17	100

As shown in Table three, half of the reviewed studies used only one research instrument for measuring the dependent variables of their strategy instruction. In addition, think-aloud protocols are absent in this category of language learning strategy research, despite being needed for studying the effectiveness of any strategy instruction. According to Green (1998), "Standard statistical procedures cannot be directly applied to the verbal report data" (p. 2). Think-aloud protocols allow participants to articulate their mental processes for more in-depth and detailed

information. Moreover, none of the reviewed studies utilized standardized or global measures for all their dependent variables after teaching. Ismaiel and Al Asmari (2017) used Schmitt's (1997) taxonomy of vocabulary learning strategies to measure one of the dependent variables after teaching, and Alqarni (2018) used a tailored version of it. In contrast, McMullen (2009) used Oxford's Strategy Inventory for Language Learning (SILL) to collect data before instruction, so it is not related to the dependent variables after the instruction. Thus, it was difficult to make comparisons across the reviewed studies.

Discussion

All the studies presented in this review (except Alrasheed, 2014) found that strategy instruction has positive effects on learners' academic achievements. This is concordant with the findings of other reviews such as Arhin and Opoku (2020), Donker et al. (2014) and Plonsky (2011). Dispite this consensus and despite the fact that strategy instruction is a core area in the literature of language learning strategies (LLS), strategy-based instruction is still scarce in the context of Saudi language learning strategy research.

Due to the absence of a comprehensive theory in strategy instruction, the reviewed studies were developed based on personal discretion. This is concordant with Plonsky's (2011) finding that SBI studies are "based largely on convenience, intuition, and/or some level of idiosyncrasy" (p. 998). Only two studies reported following one of the well-designed modals of strategy instruction mentioned in the literature. Griffiths (2014) stated that strategy researchers should be careful and implement appropriate instruments and employ appropriate analysis techniques. This could be facilitated by observing a model of strategy instruction designed by experts in the field. Only one of the reviewed studies utilized a standardized measure for one of its dependent variables after instruction. Thus, it was difficult to make comparisons across the studies. As stated earlier, strategy instruction is a demanding task. It requires administering various measures, such as pretests/posttests, experiment groups, ongoing assessments, thinking aloud, interviews, and learner journals and portfolios, to track how learners have incorporated strategy training into their learning and to find out the relationship between strategy use and learning outcomes (Cohen, 2005).

Conclusion

This paper employed a review of the related studies to determine how much language learning strategy instruction is addressed in strategy research in Saudi Arabia. In addition, it aimed to find out how many instruments have been used to measure the effectiveness of strategy instruction and what kind of strategies are taught. Few studies met the criteria, and those that did targeted different variables in their strategy instructions and developed based on personal discretion. The most taught strategies in the reviewed studies are reading strategies and then vocabulary/spelling strategies. The least taught strategies, however, are social and motivational strategies. The affective and emotional strategies are not taught in the reviewed studies. It is thus recommended that Saudi strategy researchers always include strategy instruction in their investigation for language learning strategies and calculate the duration of their instruction in hours. In addition, studies in strategy instruction should explain in detail what it is and why and how they conducted instruction. Most of the researchers in the reviewed studies used only one research instrument for measuring the dependent variables of their strategy instruction and used self-developed survey and tests. Strategy instruction is a demanding task. Therefore, future

strategy researchers who seek to study the effects of strategy instruction on language learning achievements should deploy mixed method design with different research instruments to assess the qualitative aspects of strategy use. In self-developed survey and tests, participants' performance might be unintentionally directed toward the instruments used (Donker et al., 2014). In addition, future research must deliver a clearer picture of intervention processes and procedures. The scope of the current review is articles in academic journals; therefore, theses and dissertations were not included. This might be worth considering in future research.

Finally, there is a significant increase in calls to integrate strategy instruction not only in strategy research and classroom activities, but also in teacher education programs (Grenfell & Harris, 2017; Griffiths, 2014; Assiri & Siddiqui, 2020; Kassem, 2019). Language learning strategy research and education policy makers in Saudi Arabia should take those calls seriously so that teachers can be made aware of the need to integrate strategy instruction into the content of their lessons and be educated on how this should be done.

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Appendix
Chronological Order of the Reviewed Studies

Researcher	Year	Participants	Purpose of strategy taught	Length of instruction	Methodology	Main findings
McMullen	2009	94 female and 71 male college students for the survey, and 16 for the instruction	discover the advantages of strategy instruction on writing.	Whole semester	Pre-experimental: SILL Strategy survey, questionnaire, pre-post-writing tasks and tests.	93.75% of the 16 students got higher marks after the training.
Alsamadani	2011	85 male college students	Test the impacts of the 3-2-1 reading strategy on reading comprehension.	6 weeks	Quasi-experimental: reading pre-post-test.	The target group outpaced the control group
Okasha and Hamdi	2014	70 male college students	Use strategic writing techniques to promote writing skills and attitudes.	2 months	Quasi-experimental: pre-post- test.	writing skills and attitudes improved among the target group.
Alrasheed	2014	46 female college students	Determine the effect of two pre-reading strategies on reading comprehension.	4 days (4 h)	Quasi-experimental for two groups: post-tests.	differences were not significant.
Ismail and Tawalbeh	2015	21 female university students	Determine the effect of metacognitive reading strategies on low achievers in reading.	10 weeks (20 sessions)	Quasi-experimental: pre-post-test, strategy questionnaire.	The experimental group outpaced the control group.
Alrabai	2016	437 male students	Determine the effects of six pre-selected motivational strategies on learner motivation	10 weeks	Quasi-experimental: questionnaire., class observation pre-post-tests.	Learner motivation increased, which led to higher achievement levels in the experimental group.

			and achievement.			
Nahari and Alfadda	2016	42 female elementary school students	Ascertain the effect of using visualization strategies to improve spelling and attitudes.	5 weeks (45 min/week)	Experimental and control group design: pre-post-tests, questionnaire.	The experimental group outpaced the control group.
Abdelhalim	2017	50 female college students	Ascertain the impact of reading strategies in improving reading comprehension and engagement.	3 months (16 h)	Quasi-experimental: pre-post-test, survey, interviews.	The experimental group outpaced the control group.
Ismaiel and Al Asmari	2017	123 female college students	Discover the impact of vocabulary learning strategies.	12 weeks	Experimental and control group design; pre-post-test and questionnaire.	The experimental group outpaced the control group.
Khodary	2017	80 female students	Discover the effect of using Vocabulary Strategy on improving vocabulary learning.	11 weeks (77 h)	Quasi experimental: pre-post-test.	The experimental group outpaced the control group.
Alzubi and Singh	2018	70 male students	Determine the impact of social strategies through smartphones on socio-cultural autonomy in reading context.	12 weeks	Experimental and control group design: pre-post-questionnaire.	The target learners' socio-culturally autonomous features were promoted.
Alqarni	2018	29 male college students	Determine the impact of strategy training on raising	5 weeks (5 h)	Pre-experimental: pre-post-questionnaire.	There was a significant difference in the use of determination,

				awareness on 40 vocabulary learning strategies.			memory, and cognitive strategies.
Mahdi	2019	45 male college students	Determine the effect of traditional and multimedia LINCS (List, Identify, Note, Create, Self-test) strategy on learning pronunciation.	2 weeks	Quasi-experimental: pre-post-tests.	The experimental groups outpaced the control group.
Alzubi et al.	2019	70 male college students	Determine the impact of reading strategies through smartphones on the learners' psychological autonomy.	12 weeks	Experimental and control group design, pre-post-questionnaire.	The dependent variables were promoted.
Kassem	2019	39 male college students	The impact of communication strategy instruction on strategy use, speaking skill and self-efficacy.	One semester (1 h/week)	Experimental and control group design; pre-post-tests, questionnaire, strategy use checklist.	The experimental group outpaced the control group.
Assiri and Siddiqui	2020	35 male college students	The effect of reading strategy on reading comprehension.	8 weeks	Experimental and control group design; pre-post-tests, survey.	The experimental group outpaced the control group.
Okasha	2020	70 male college students	Determine the effect of the strategic reading on reading comprehension.	7 weeks (9 h)	Quasi-experimental: pre-post-questionnaire and test.	Strategic reading was effective.