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Mediating Effect of Language Learning Strategies in the Relationship between Learning Attitude and Proficiency

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Abstract

The purpose of this study was to investigate whether learning strategies play a mediating role in the relationship between learning attitude and foreign language proficiency. Partial Least Squares Structural Equation Modeling (PLS-SEM) were employed to analyze the structural connections among language learning strategies, learning attitudes, and their potential influence on language proficiency. The data were gathered from 1208 Saudi Arabian female secondary school students. The results indicate that learning attitude significantly influences language learning and has a notable impact on students' foreign language proficiency. Additionally, language learning strategies, particularly strategies such as memory, compensation, and cognitive, play a pivotal role in mediating the connection between learning attitude and language proficiency. This study holds implications for English language teaching. Foreign language educators should not only focus on imparting knowledge but also on fostering students' learning strategies and attitudes.

Keywords: *Language Learning Strategies, Learning Attitudes, Language Proficiency*

¹Introduction

Rebecca Oxford's work on language learning strategies is widely recognized in the field of teaching and learning languages. The objective is to equip language learners with effective strategies for long-term success (Oxford, 1990). This approach has been embraced by academics, teachers, and students worldwide for over three decades. The primary aim of this

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approach is to empower students with the tools essential for becoming proficient language learners, thereby enabling them to internalize and utilize language, enhancing fluency in communication, and deepening their language knowledge (Oxford, 1990).

The significance and prominence of Rebecca Oxford's work on language learning strategies cannot be overstated. It has garnered acclaim from both language learners and educators. It has effectively facilitated language teaching and learning across diverse countries and contexts (Dawadi, 2017; Griffiths & Oxford, 2014; Habók & Magyar, 2018; Pawlak, 2021). It is lauded for its integration of various research domains and its efficacy in guiding students on how to effectively learn a language. Furthermore, it is acknowledged for helping students to achieve a comprehensive grasp of language structure and usage.

Rebecca Oxford has authored multiple books detailing language learning strategies, which have become invaluable resources for language learners seeking clear and concise explanations of the approach. These books not only elucidate the strategies but also furnish students with advice and support, aiding them in their journey to becoming accomplished language learners. Scholars and educators alike recognize the indispensability of Rebecca Oxford's language learning strategies as a pedagogical tool for foreign language instruction. It remains a cherished asset for learners and educators, and its popularity shows no signs of waning.

Rebecca Oxford states that language learning styles and tactics are important variables in determining children's ability to learn a new language (Oxford, 1990). Oxford and Burry-Stock (1995) assert that language learning strategies facilitate language acquisition and the use of received and recalled information. Initial research on language learning strategies dates back to the 1970s when Rubin (1975) highlighted various strategies used by good language learners. Oxford and Nyikos (1989) focused their research on the factors influencing university students' decision-making regarding language learning strategies, and Oxford and Crookall (1989) highlighted the importance of different learning strategies. Oxford (1992) emphasized that the central role of learning strategies is crucial for the development of communicative competence, and Oxford (1996) elaborated on these strategies, dividing them into metacognitive, socio-effective, and cognitive. This understanding of strategies enhances learning and contributes to overall learning proficiency (Griffiths & Oxford, 2014; Pawlak, 2021).

Chilkiewicz (2018) highlights the interest in language learning strategies arising from the desire to understand the qualities of successful English learners. Habók and Magyar (2018) also mention that effective learners need the support of teachers who are employing appropriate learning strategies. These strategies are categorized as direct and indirect, with metacognitive strategies allowing learners to regulate their learning abilities (Abadul, 2019).

The attitude of students toward learning plays a pivotal role in the utilization of language learning strategies (Dawadi, 2017; Habók & Magyar, 2018). According to Habók and Magyar (2018), language learning strategies and attitudes toward education significantly impact the perceived level of competence in the target language. Dawadi (2017) confirmed the important role of attitudes and strategy utilization in predicting perceived competence in language learning. However, recent research mainly focuses on regression analyses concerning the relationship between language learning strategies, attitudes toward foreign languages, academic achievement in foreign languages, and overall academic performance (Habók & Magyar, 2018). Research on mediating effects remains limited. This study therefore aimed to

determine whether language learning strategies mediate and to what extent they affect the relationship between language learning attitudes and foreign language proficiency.

Theoretical Framework and Review of Related Studies

Zimmerman's (2001) self-regulated learning (SRL) model identifies three phases: the forethought phase, during which learners set goals, assess their motivation and abilities, and make plans; the performance phase, when learners focus, engage, develop strategies, and monitor progress; and the reflection phase, when learners reflect upon their performance and self-evaluate. Most SRL models describe cyclical processes guiding learners' actions before, during, and after learning tasks (Butler & Cartier, 2004; Winne & Hadwin, 1998; Zimmerman, 2001).

Zimmerman (2001) emphasizes that strategic learners possess a range of learning strategies, allowing adaptability during learning. This adaptability suggests that students can adjust strategies during the reflection stage for better task alignment and performance. Consequently, learning strategies may play a significant mediating role.

Learners' attitudes affect motivation and task completion (Chang & Zhang, 2021; Habók & Magyar, 2018). Therefore, students' language learning attitudes toward learning English were used as a predictor of language proficiency and the language learning strategies used as mediating factors, influencing participation, strategy formulation, application, and performance.

Review of Rebecca Oxford's Language Learning Strategies

Oxford and Crookall (1989) stressed that the principal aim of language learning strategies was to ease learning, making it more self-directed, efficient, and transferable. Rebecca Oxford's (1990) influential work on learning strategies builds upon O'Malley and Chamot's (1990) framework, categorizing strategies into metacognitive, cognitive, and social.

Oxford (1990) also classifies strategies as direct and indirect. Direct strategies encompass memory, cognitive, and compensation strategies. Memory strategies aid information retention. Cognitive strategies aid comprehension and meaning decoding. Compensation strategies involve using native or multiple languages. Indirect strategies encompass metacognitive, affective, and social strategies. Metacognitive strategies monitor and regulate learning, affective strategies manage emotions, and social strategies involve collaboration. Based upon these categories, Oxford (1990) developed the Strategy Inventory for Language Learning (SILL), which has been validated and widely used in the field of language learning strategies (e.g., Griffiths & Oxford, 2014; Pawlak, 2021). Oxford's (1990) work serves as a foundational contribution, guiding language learning. Students become more successful learners, aided by insights into their unique learning strategies.

Oxford's work aims to empower students to control their learning and facilitate teacher-to-learner information transfer. Gürsoy (2010) extended Oxford's taxonomy, analyzing cognitive processing in language learning. Gürsoy's research helps educators understand student strategies, tailoring teaching to individual needs. Drożdżał-Szelest (1997) introduced a plan for students to improve foreign language acquisition. Pawlak (2021) and Griffiths and Oxford (2014) affirm the effectiveness of Oxford's taxonomy for classroom interventions. Herrera's (2022) Biographically Driven Instruction (BDI) approach, incorporating communicative,

cognitive, and grammatical processes, highlights the profound aid these models offer language learners.

The consensus in the literature is that Oxford's strategies bridge the gap between learners and teachers and aid lesson effectiveness. Insights into student strategies allow tailored teaching, accommodating individual needs.

Relationship between Language Learning Strategies and Academic Performance

The literature extensively explores the link between language learning strategies and academic performance. Ramsden (2003) suggests that strategies activating autonomous learning enhance knowledge acquisition. However, Ramsden (2003) did not clarify which approaches to language learning are indeed preferable when it comes to improving academic outcomes. Biggs and Tang (2007) claim that metacognitive strategies for language learning are ideal for improving academic outcomes because they increase the level of understanding, whereas surface approaches such as memory and compensation approaches to learning can be inconsistent and may have adverse impacts on academic achievement. These findings are replicated by Richards and Burns (2012) and Groccia (2018).

Richards and Burns (2012) found a small anomaly in which academic outcomes were impacted adversely when student and teacher interests were not aligned. In this situation, the authors argue that learning strategies alone cannot successfully lead to expected academic outcomes. Falk (2016) also found a positive relationship between language learning strategies and academic performance, but claimed that appropriate teaching strategies are required to help learners to learn appropriately and improve educational outcomes. In the absence of appropriate learning strategies, academic performance may decline (Falk, 2016). These studies suggest that other factors such as learning attitudes, learner's beliefs, and teacher facilitation work together with language learning strategies to influence academic outcomes (Biggs & Tang, 2007; Groccia, 2018; Ramsden, 2003; Richards & Burns, 2012).

Language learning strategies hold potential for improving academic performance, contingent on teaching methods and positive attitudes (Feng et al., 2020). These factors are essential to gain the most out of effective language learning strategies, so they can be put into practice and lead to enhanced academic performance. Further research is needed to explore the relationships between these factors comprehensively.

Learning Attitude as related to Academic Performance

Learning attitude is widely accepted as representing a learner's perspective toward language learning, and research affirms that learners with positive attitudes toward language learning tend to experience greater academic achievement and display higher motivation, and increased persistence (Chang & Zhang, 2021; De Bot et al. 2007; Gardner, 1985; Habók & Magyar, 2018; Masgoret & Gardner, 1999). This suggests that language learners' attitudes play a significant role in their overall success with language learning. In addition, Kormos et al. (2011) discovered a connection between language learners' attitudes and their willingness and effort to persist with language studies.

Given the importance of learning attitudes in language studies, there are many strategies and materials that can be used to foster the development of positive attitudes in learners. For example, creative and stimulating instruction can help learners become more motivated and

encouraged to continue their language studies (Brown, 2000). By introducing reading materials in the target language that are related to native culture, learners can form positive attitudes toward language learning (Masgoret & Gardner, 1999; Miller, 2017). Furthermore, providing learners with activities that are designed to suit their interests can help them maintain a growth-oriented attitude toward their language learning (Kormos et al., 2011).

In conclusion, learning attitude is an essential construct in language learning and has a direct effect on language proficiency. Having a positive attitude toward language learning can lead to increased persistence and motivation as well as improved academic results. Therefore, to increase the success of language learners, it is necessary to cultivate and maintain a positive attitude in language learning by providing stimulating tasks, materials, and activities. Through these strategies, language learners can be enabled to achieve the desired level of language proficiency.

Relationship between Language Learning Strategies and Learning Attitude

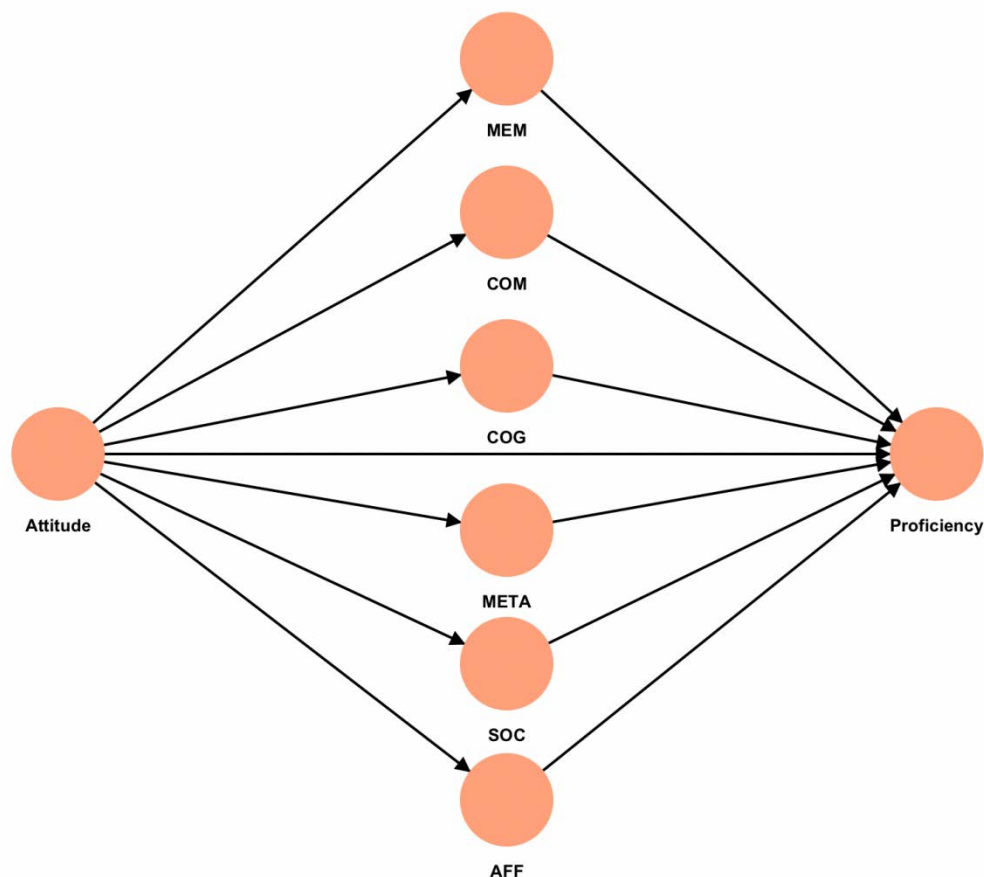
In recent years, extensive research has been dedicated to comprehending the intricate connection between language learning attitudes and language learning strategies. Al-Qahtani (2013) concluded that learners' attitudes toward the language are intricately linked to their language acquisition capabilities. Platsidou and Kantariidou (2014) conducted a more rigorous investigation and reported that a positive attitude toward language learning correlates with an increased utilization of language learning strategies and an enhanced ability to grasp the language. Habók and Magyar (2018) similarly found a positive relationship between language learning strategies, foreign language attitudes, academic achievement in foreign languages, and overall academic performance.

Moreover, Getie (2020) and Hatane et al. (2021) reinforced the intricacy of the learning process by establishing a connection between attitude and broader learning outcomes. The current body of research collectively emphasizes that attitude holds a pivotal position in language learning. Notably, a positive attitude toward language learning has been shown to lead to heightened utilization of language learning strategies, consequently contributing to improved language acquisition. This positive attitude has also demonstrated positive associations with overall learning achievements in diverse contexts. Consequently, further research is warranted to explore the intricate relationship between attitude and language learning, thereby enriching our understanding of the multifaceted contextual and external factors that shape language learning outcomes.

However, investigations into the mediating relationship between learning strategies, learning attitudes, and learning performance are limited. The hypothetical structural model is illustrated in Figure 1, and this study is guided by the following research hypotheses:

Figure 1

Hypothesized Structural Model of the Relationships among Language Learning Strategies, Learning Attitude and English Proficiency



Note: MEM = Memory Strategy; COM = Compensatory Strategy; COG = Cognitive Strategy; Meta = Meta-cognitive Strategy; SOC = Social Strategy; AFF = Affective Strategy.

H₁: There are relationships among learning attitudes, language learning strategies, and English language proficiency.

H₂: Language learning strategies indirectly impact language proficiency as mediators between learning attitudes and English language proficiency.

Method

Participants

Stratified random sampling was employed, and questionnaires were received from 1208 students in girls' secondary schools in Saudi Arabia after the removal of 756 incomplete or invalid responses. Each grade level was well represented: 429 (35.5%) in Grade One, 398 (32.9%) in Grade Two, and 381 (31.5%) in Grade Three.

Instruments

Strategy inventory for language learning

The Strategy Inventory for Language Learning (SILL) version seven, developed by Oxford (1990), was employed to measure students' language learning strategies. The SILL has been validated through a series of studies (e.g., Griffiths & Oxford, 2014; Pawlak, 2021). Nine items

assessed memory strategies (e.g., I think of relationships between what I already know and new things I learn in English), fourteen assessed cognitive strategies (e.g., “I say or write new English words several times”), six assessed compensatory strategies (e.g., “To understand unfamiliar English words, I make guesses”), nine items assessed meta-cognitive strategies (e.g., “I try to find as many ways as I can to use my English”), six items assessed affective strategies (e.g., “I try to relax whenever I feel afraid of using English”), and six items assessed social strategies (e.g., “If I do not understand something in English, I ask the other person to slow down or say it again”). The SILL uses 50-items, each of which participants are asked to rate on a five-point Likert scale from 1 (never or almost never true of me) to 5 (always or almost always true of me). With the data collected in this study, the reliability of this scale was 0.913.

Questionnaire of attitudes towards language English

The Questionnaire of Attitudes toward the Language English (QALE) was developed by Al-Noursi (2013) and contains 40 items which participants are asked to rate on a Likert scale from 1 (strongly disagree) to 5 (strongly agree). The questionnaire measures attitudes students hold towards learning English, and the reliability in the current study was 0.89.

English language proficiency test

The test was developed according to an English language framework that consists of five components: free composition, reading comprehension, grammar, vocabulary, and listening comprehension and speaking skills. For free composition, students were asked to write a text, story, message, email or report using some illustrations or guided words. For reading comprehension, students were asked to answer a number of questions after reading a new text. Multiple choice, sentence correction and reordering, and composition of grammatical phrases were used to test students' knowledge of English grammar. Students needed to provide the synonyms or antonyms of the words given or to connect words and images to show their knowledge of vocabulary. Finally, students' listening and speaking skills were evaluated through conversations, presentations, role plays, or answering questions after listening to an audio recording. The test scores ranged from 0 to 100 with a mean of 82.65 and a standard deviation of 16.91.

Data Analysis

Means and standard deviations were reported for continuous variables (i.e., age and English language proficiency) whereas median and interquartile range were reported for ordinal variables (i.e., language learning strategies and attitudes). Spearman's rank correlation analysis and Partial Least Squares Structural Equation Modeling (PLS-SEM) were the main statistical analysis methods used in this study due to the nature of the data (i.e., language learning strategies and attitudes were measured with Likert-scales which produce ordinal data). SPSS was employed to conduct the Spearman correlation analysis and SMART PLS was employed to conduct the PLS-SEM. First, a correlation analysis was conducted to assess the relationships between the different factors in the study. This analysis aimed to examine the strength and direction of the associations between the variables. Subsequently, the hypothetical model was evaluated with the non-parametric version of the PLS-SEM along with Bootstrap resampling.

PLS-SEM offers notable advantages over traditional SEM, particularly in scenarios where data distribution does not strictly adhere to normality (Hair et al., 2019). PLS-SEM optimizes variance and data quality for dependent variables while accommodating the unique characteristics of the measurement model. Importantly, it constructs estimated attributes without imposing excessive constraints (Hair et al., 2011). Given the characteristics of the current research where strategies and attitudes were measured with Likert scales, PLS-SEM proved to be a more fitting and advantageous approach. This method is especially well-suited for handling complex research models, as acknowledged by researchers (e.g., Hair et al., 2019).

Normed fit index (NFI) and standardized root mean square residual (SRMR) were used to assess the model fit. NFI values range from 0 to 1 and a value higher than 0.90 is considered acceptable (Lohmöller, 1989). SRMR values also range from 0 to 1 but a value less than 0.05 suggests a good fit (Byrne, 1998; Diamantopoulos & Siguaw, 2000).

Results

Correlation Results

Table 1 demonstrates the descriptive statistics by three grade levels. The average age of students was 15.6, 16.7, and 17.7 for the three grade levels. Means and standard deviations of the English language proficiency scores as well as medians and interquartile ranges for attitudes toward learning English and language learning strategies were also included in Table 1.

Table 1

Descriptive Statistics of the Different Grades

| | Grade One | | Grade Two | | Grade Three | |
|-------------------------|-----------|-----------|-----------|-----------|-------------|-----------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> |
| Age | 15.60 | 0.73 | 16.72 | 0.82 | 17.73 | 0.79 |
| Proficiency | 81.41 | 17.51 | 82.10 | 16.24 | 84.61 | 16.76 |
| | Median | IQR | Median | IQR | Median | IQR |
| Memory Strategy | 3.00 | 2.00 | 3.00 | 2.00 | 3.00 | 2.00 |
| Cognitive Strategy | 3.00 | 2.00 | 3.00 | 2.00 | 3.00 | 2.00 |
| Compensatory Strategy | 3.50 | 1.50 | 3.50 | 2.00 | 3.50 | 1.50 |
| Meta-cognitive Strategy | 4.00 | 3.00 | 4.00 | 3.00 | 3.00 | 2.00 |
| Affective Strategy | 2.50 | 1.50 | 2.50 | 2.00 | 2.50 | 2.00 |
| Social Strategy | 3.50 | 2.00 | 3.50 | 1.50 | 3.00 | 2.00 |
| Attitudes | 4.00 | 1.00 | 4.00 | 1.00 | 4.00 | 1.00 |

Note. IQR = interquartile range

Table 2 presents the Spearman’s correlation coefficients among the variables of interest. Based on Table 2, language learning attitude was statistically significantly correlated with proficiency ($r_s = .349$) and six dimensions of language learning strategies (r_s ranged from .288 to .628). Also, the six dimensions in language learning strategies were statistically significantly related to each other and to language learning attitude and English language proficiency (Table 2).

Table 2
Spearman Correlation Coefficients of the Variables of Interest

| | Proficiency | MEM | COG | COM | META | AFF | SOC |
|-------------|-------------|--------|--------|--------|--------|--------|--------|
| Proficiency | 1.00 | | | | | | |
| MEM | .220** | 1 | | | | | |
| COG | .296** | .604** | 1 | | | | |
| COM | .286** | .427** | .546** | 1 | | | |
| META | .295** | .521** | .661** | .468** | 1 | | |
| AFF | .110** | .404** | .387** | .339** | .416** | 1 | |
| SOC | .161** | .498** | .604** | .457** | .605** | .449** | 1 |
| Attitude | .349** | .499** | .628** | .435** | .606** | .288** | .525** |

Note: (a) MEM = Memory Strategy; COG = Cognitive Strategy; COM = Compensatory Strategy; META = Meta-cognitive Strategy; AFF = Affective Strategy; SOC = Social Strategy; (b) ** $p < .001$.

PLS-SEM Results

The NFI for the hypothesized model was 0.904, which is a good and acceptable (Lohmöller, 1989). The SRMR for the hypothesized model was 0.041, which also suggests good fit (Byrne, 1998; Diamantopoulos & Siguaw, 2000).

Table 3
Path Coefficients of Model for Total Effects

| | | | Estimate | P-value |
|---------------------------|------|---------------------------|----------|---------|
| Cognitive Strategies | <--- | Attitude | .358 | < .001 |
| Memory Strategies | <--- | Attitude | .432 | < .001 |
| Compensatory Strategies | <--- | Attitude | .470 | < .001 |
| Meta-cognitive Strategies | <--- | Attitude | .460 | < .001 |
| Social Strategies | <--- | Attitude | .423 | < .001 |
| Affective Strategies | <--- | Attitude | .376 | < .001 |
| Proficiency | <--- | Memory Strategies | .169 | < .001 |
| Proficiency | <--- | Compensatory Strategies | .145 | < .001 |
| Proficiency | <--- | Meta-cognitive Strategies | .096 | < .001 |
| Proficiency | <--- | Social Strategies | .090 | .001 |
| Proficiency | <--- | Affective Strategies | .078 | .001 |
| Proficiency | <--- | Cognitive Strategies | .090 | < .001 |
| Proficiency | <--- | Attitude | .223 | < .001 |

For the impact path, attitude had a statistically significant impact on every strategy, and every strategy had a statistically significant impact on English language proficiency. Among them, the influence of social strategies and emotional strategies on English language proficiency was not as strong as other strategies. According to Oxford's (1990) theory, metacognitive strategies, social strategies, and affective strategies belong to indirect strategies whereas memory strategies, cognitive strategies, and compensation strategies belong to direct strategies.

In addition, learning attitude has the strongest influence on the compensatory strategy ($\beta = .470$, $p < .001$). The influence of learning attitude on the three indirect strategies is similar to that of meta-cognitive strategies ($\beta = .460$), social strategies ($\beta = .423$), and affective strategies

($\beta = .376$). As for the effect of learning strategies on English language proficiency, memory strategies have the strongest effect ($\beta = .169$, $p < .001$). The effect of compensatory strategies on proficiency was also statistically significant ($\beta = .145$, $p < .001$), as were the effects of metacognitive strategies ($\beta = .096$, $p < .001$) and social and cognitive strategies ($\beta = .090$, $p < .001$). Affective strategies had the smallest effect on English language proficiency ($\beta = .078$, $p = .001$).

Table 4

Bootstrap Analysis of Total Indirect Effects

| Relationship | Path Coefficient | 95% Confidence interval | <i>p</i> -value |
|---------------------------------|------------------|-------------------------|-----------------|
| Attitude -> COM -> Proficiency | 0.068 | [0.040, 0.096] | < .001 |
| Attitude -> SOC -> Proficiency | 0.038 | [0.014, 0.061] | .002 |
| Attitude -> MEM -> Proficiency | 0.073 | [0.050, 0.098] | < .001 |
| Attitude -> COG -> Proficiency | 0.032 | [0.013, 0.051] | .001 |
| Attitude -> AFF -> Proficiency | 0.029 | [0.012, 0.048] | .001 |
| Attitude -> META -> Proficiency | 0.044 | [0.019, 0.069] | .002 |

Note: MEM = Memory Strategy; COM = Compensatory Strategy; COG = Cognitive Strategy; SOC = Social Strategy; AFF = Affective Strategy; Meta = Meta-cognitive Strategy.

The mediating effect of all six different language learning strategies between attitude and English language proficiency was statistically significant after bootstrapping 5000 times (Table 4). Among them, compensation strategies and memory strategies had the strongest indirect impact on English proficiency with path coefficients of 0.068 and 0.073 respectively. Metacognitive strategies, cognitive strategies, and affective strategies also had a statistically significant indirect effect on English language proficiency other than attitudes with coefficients from of 0.044, 0.032, and 0.029, respectively. Compared with other strategies, social strategies had the least indirect effect with a path coefficient of .038.

Discussion

This study has unveiled two pivotal findings of substantial significance. The first finding aligns with previous research conclusions, affirming that learning attitude holds a remarkable predictive capability over English proficiency (Chang & Zhang, 2021; De Bot et al. 2007; Gardner, 1985; Habók & Magyar, 2018; Masgoret & Gardner, 1999). This corroborates the existing body of knowledge in the field.

In alignment with prior research, this study affirms the substantial influence of learning attitudes on language performance, a notion supported by various studies (Bakar et al., 2010; Chang & Zhang, 2021; Kormos et al., 2011; Miller, 2017). Evidently, students with more positive attitudes toward learning tend to excel academically. Conversely, negative learning attitudes have been linked to factors like burnout and anxiety, exerting an adverse impact on students' performance (Daumiller et al., 2021; Liu et al., 2021). This underscores the vital role that language educators play in monitoring and fostering students' learning attitudes during the teaching process.

Consequently, it is imperative for language instructors to adeptly discern shifts in students' emotional attitudes and guide them toward a constructive learning outlook. A positive shift in attitude can significantly boost academic performance (Chang & Zhang, 2021; Liu et al., 2021). To enhance learning attitudes, educators can employ a range of supportive and engaging

teaching techniques to foster an environment conducive to open learning. Moreover, reinforcing positive behavior and accomplishments can instill a sense of positivity, motivate and engage students while encouraging them to strive for excellence (Gage et al., 2015).

Hence, educators are urged to harness the full potential of diverse teaching techniques, thereby motivating students and cultivating positive attitudes toward learning. The strategic application of varied teaching methods creates a comfortable learning environment, enabling students to confidently explore new ideas and concepts. Through this multifaceted approach, teachers foster a culture of open exploration and heightened engagement, ultimately contributing to a more positive and productive learning experience.

The second main finding delves into the intricate interplay between learning attitudes and English learning performance, elucidating the mediating role of language learning strategies. This study's revelation underscores the pivotal function that these strategies assume in bridging the gap between learners' attitudes and their ultimate English proficiency outcomes (Getie, 2020; Habók & Magyar, 2018; Platsidou & Kantariidou, 2014). Consequently, this study adds a fresh layer of empirical support to the prevailing notion that cultivating a favorable attitude, synergistically coupled with the implementation of effective language learning strategies, serves as the cornerstone for achieving English language proficiency.

The present study sheds light on the substantial and positive mediating role played by language learning strategies in the connection between attitudes and English language proficiency. Notably, a significantly positive correlation emerged between learning attitudes and strategies, particularly with a pronounced impact on compensatory strategies. This finding suggests that students with more positive learning attitudes tend to utilize compensation strategies more frequently. In Rebecca Oxford's (1990) research, these compensation strategies encompass approaches such as making educated guesses to comprehend unfamiliar English words, employing gestures when unable to recall a word in conversation, and creating new words when lacking the precise ones.

Furthermore, the positive and partially significant influence of study strategies on English proficiency was evident among the participants in this study, as noted by Al-Hebaishi (2012). Notably, memory strategies exhibited the most pronounced impact on English language proficiency, suggesting that those who frequently employ mnemonic techniques tend to possess higher English proficiency.

In contrast, social and emotional strategies had a comparatively minor impact. This observation might be attributed to the personality traits of the participants in this study (Saudi Arabian girls), who may lean towards introversion, self-preservation, and limited social engagement (Bitton & Hawa-Kamel, 2020).

This study suggests that although certain indirect strategies (affective, social, and metacognitive) demonstrated less direct impact on proficiency compared to direct strategies (memory, cognitive, and compensatory), students employing language learning strategies exhibited higher English proficiency. This underscores the advantageous role of language learning strategies in enhancing students' English proficiency. Consequently, educators should not only focus on imparting knowledge during class but also prioritize the cultivation and development of students' learning strategies.

In conclusion, this study underscores the pivotal role of language learning strategies as mediators in the relationship between attitudes and English language proficiency. It highlights

the positive impact of learning attitudes on strategies and their subsequent influence on proficiency, while recognizing variations across strategies and student characteristics. The findings emphasize the importance of fostering effective learning strategies alongside knowledge transmission in language education.

Educational Implications

This study echoes previous research with students (both male and female) in Saudi Arabia and other countries and demonstrates that the implementation of memory, cognitive, compensating, metacognitive, affective, and social strategies can substantially bolster academic performance (Al-Hebaishi, 2012; Feng et al., 2020).

Memory strategies, encompassing techniques like focused study, flashcard creation, and information rehearsal, have proven particularly effective in enhancing memory retention and subsequently elevating academic achievements (Gaskill & Murphy, 2004). Similarly, cognitive strategies, involving the comprehension of key concepts, information analysis, and pattern recognition, play a pivotal role in fostering a deeper understanding of the subjects being studied (Ryan, 1986). Metacognitive strategies, encompassing self-monitoring, self-regulation, self-instruction, and self-questioning, contribute to heightened self-awareness and reflective learning processes. By applying these strategies, students can better grasp and assimilate abstract concepts (Berger et al., 2017; Vula et al., 2017). Additionally, affective strategies, including goal setting, peer interaction, and maintaining a positive outlook, empower students to overcome anxiety, sustaining their motivation in academic pursuits (Braun et al., 2019). Furthermore, social strategies, such as collaborative group work, meaningful engagement with teachers, and fostering a positive attitude towards learning, facilitate a more comprehensive understanding of the educational landscape and encourage active participation (Hardan, 2013). By embracing these strategies, students are better equipped to confront the challenges of language learning, empowering them to thrive academically and embrace their evolving capabilities (Al-Hebaishi, 2012).

Teachers bear a significant responsibility in nurturing students' adoption of strategies and cultivating positive learning attitudes. An integral step is to establish a positive and conducive learning environment (Gage et al., 2015). This entails being approachable, accessible, and supportive, fostering an atmosphere where questions are welcomed, collaboration is encouraged, and mutual respect thrives. Such an environment empowers students, helping them feel at ease and motivated.

Equally vital is the provision of meaningful feedback (Wisniewski et al., 2020). Instead of merely evaluating correct answers, teachers should assess the strategies employed by students. This practice reinforces the importance of strategies and their role in achieving goals, enabling students to recognize their value. By aligning recognition with strategy implementation, teachers encourage students to consistently apply effective strategies.

Teachers can further promote strategic thinking through purposeful activities. Immersing students in scenarios where they must employ diverse strategies to solve problems or attain objectives provides hands-on experience in employing creative and efficient techniques (Masgoret & Gardner, 1999; Miller, 2017). This practical approach fosters a deeper understanding of strategy significance.

Acknowledging successful strategy application is crucial. Commending accomplishments through praise, awards, or other forms of recognition reinforces the motivation to continue utilizing these strategies (Burden, 2000). Celebrating achievements not only instills a sense of accomplishment but also reinforces the importance of strategic thinking.

In essence, teachers face the dual challenge of encouraging strategy implementation and nurturing positive learning attitudes. By fostering a positive learning environment, offering meaningful feedback, engaging students in purposeful activities, and celebrating successes, educators create an ecosystem that promotes and rewards effective strategy use. This dedicated effort establishes an educational setting where learning strategies become integral to the overall learning journey, facilitating students' holistic growth and development.

Conclusion

This study offers a thought-provoking perspective on the interplay between learning attitudes, learning strategies, and English language proficiency. The findings have the potential to significantly impact English teaching practices, fostering a more constructive learning atmosphere that advocates evidence-based language learning strategy application and a more positive attitude toward language acquisition.

While this study offers valuable insights, it is important to acknowledge its limitations. The exclusive focus on female students in Saudi Arabia presents a potential constraint on the generalizability of the findings. To establish a more comprehensive understanding, future research should also include male students, allowing for a comparative analysis that considers potential gender-related variations in learning attitudes, strategies, and language proficiency. Furthermore, this study only investigated the strategy use of secondary students. It could also be useful to explore strategy use among primary and tertiary students and adults in order to determine whether patterns of strategy use are similar or different according to these factors.

Furthermore, this study solely examines language learning strategies as a mediating factor in the relationship between attitude and proficiency, overlooking the potential influence of other significant variables such as motivation and engagement. These factors undoubtedly also contribute to students' language learning experiences and outcomes (Liu et al., 2022; Yang et al., 2022). Therefore, future studies should explore the interplay between learning attitudes, strategies, motivation, and engagement (and, perhaps, other potentially influential variables) in order to provide a more holistic perspective on the multifaceted dynamics that shape language acquisition.

By addressing these limitations and expanding the scope of research to encompass a broader range of students and relevant factors, we can enhance the robustness and applicability of findings in guiding effective language teaching practices and optimizing language learning experiences in Saudi Arabia and other countries.


Looking ahead, future research endeavors could delve into the intricate interactions between diverse learning attitudes and specific language learning strategies, given the inherently subjective nature of strategies. This study's outcomes offer valuable insights into the potential advantages of cultivating positive learning attitudes and targeted learning strategies within language classrooms. By building upon these findings, educators and researchers can continue to refine language teaching practices and contribute to the ongoing advancement of language education.


To summarize, this research convincingly demonstrates the substantial influence of learning attitudes on language proficiency. Moreover, it underscores the crucial role of language learning strategies as mediators between attitudes and English language proficiency. By nurturing positive emotional connections to language learning and enhancing students' language learning strategies, English language educators can deliver more effective instruction and facilitate more fruitful language learning experiences (Miller, 2017).

Therefore, it is imperative for language teachers to incorporate these findings into their pedagogical approach and practice. Creating an environment that promotes positive attitudes and effectively implements tailored learning strategies can significantly enhance students' English language acquisition. As a result, educators should be vigilant about integrating these insights in order to foster a conducive learning environment and to strategically enhance their students' English language proficiency.

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