

Mediation Effects of Language Anxiety and Prior Learning Experience on Academic Speaking Challenges and Strategies among Libyan Students in Malaysian Universities

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Abstract

This study examined the academic speaking challenges faced by Libyan students in Malaysian universities, explored the strategies they used to overcome these challenges, and investigated the influence of prior learning experience and language anxiety on their academic communication abroad. The research also highlighted the role of self-regulated learning in helping Libyan students tackle their academic challenges and implement effective communication strategies in their new international academic setting. The study employed an explanatory mixed-mode research design, involving a questionnaire with 223 respondents, interviews with 15 informants, and a focused group discussion. Field notes and member checks were used for validation. Correlational procedures, structural equation modeling (SEM), and bootstrapping resampling analyses were conducted to examine the relationships between variables, validate study models, and test research hypotheses. NVivo analysis was utilized to code and generate themes from interviews, focus group discussions, and field notes. Findings revealed that Libyan students in Malaysian universities displayed strong self-regulated learning characterized by positive motivation and self-awareness, enabling them to overcome communication challenges through the implementation of various strategies to achieve academic success. The study also demonstrated that language challenges, language anxiety, and prior experience influenced the adoption of academic speaking strategies. These results emphasize the need for stakeholders to address the negative prior experiences faced by Libyan international students and highlight the importance of further research on previous experiences and emotional factors to gain a deeper understanding of the learning experiences of international EFL students in higher education institutions.

Keywords: language anxiety, prior learning experience, self-regulated learning, motivation, academic speaking challenges, academic speaking strategies

1. Introduction

Higher education institutions view internationalization as a significant and beneficial development. The success of this trend depends largely on the effective functioning of academic communication in environments where English is a second language (ESL) or foreign language (FL). However, overseas EFL students who have little or no prior experience using English may struggle to interact with peers from diverse educational backgrounds in academic settings. Limited experience in real-world English communication and inadequate knowledge and skills in English result in minimal language comprehension for these students (Attrill et al., 2016; Diaab, 2016). Consequently, international students face comprehension challenges when conversing with interlocutors from unfamiliar social and cultural backgrounds with varying language proficiency levels.

International students' speaking comprehension challenges involve difficulties related to academic communication skills and communicative competence, such as understanding differing ideas, viewpoints, and questions (Amiryousefi, 2017; Singh, 2019). These challenges hinder tasks such as participating in discussions, taking lecture or discussion notes, and reviewing for exams. While students may attempt to overcome these problems, various affective factors, including prior experience and negative psychological factors (e.g., embarrassment, anxiety, frustration, low motivation), impede their success (Al-Zubaidi & Richards, 2010; Brown & Holloway, 2008; Ismail et al., 2012; Oxford & Ehrman, 1992; Pham et al., 2022; Wolf & Phung, 2019). Consequently, students encounter spoken comprehension issues that hinder academic communication and impede their academic progress.

To overcome obstacles and improve communicative competence, international students need to employ language learning strategies (LLSs). Speaking strategies enable learners to demonstrate their understanding tangibly, reduce communication language anxiety, and enhance communicative competence (Shuib et al., 2020; Suleimenova, 2013). Previous studies classified LLSs into six categories proposed by Oxford (1990): cognitive, memory-related, compensatory, metacognitive, affective, and social strategies. These categories fall into two main groups: direct strategies and indirect strategies.

Direct speaking strategies involve mental processing of the language to store and retrieve new information and comprise three main groups. Memory-related strategies involve creating mental links and contextualizing new words through immediate practice (O'Malley et al., 1985; Oxford, 1990). Cognitive speaking strategies (e.g., repeating, formal practice with sounds, recognizing and using formulas and patterns) help learners structure communication activities, improve speaking skills, and navigate challenging speaking situations (Sreen & Iankumaran, 2019). Lastly, compensatory strategies are employed to overcome speaking limitations, such as intelligent code-switching to the mother tongue and using mime gestures to convey meaning (Oxford, 1990).

Indirect speaking strategies encompass metacognitive, affective, and social strategies. Metacognitive speaking strategies involve planning for learning, self-monitoring, and self-evaluation. Learners need to plan for opportunities to practice the language whenever possible (Rubin, 1975). Self-monitoring refers to learners' awareness of their understanding (Oxford, 1990) and self-evaluation (Liyanage et al., 2014). Metacognitive strategies are highly favored among university students (Liyanage et al., 2014) and contribute to noticing mistakes and setting goals for improvement (Sioson, 2011). Other metacognitive strategies include paying attention and delaying speech production until learners feel comfortable speaking (Han & Niu, 2021; Oxford, 1990; Zare, 2012).

As speaking a new language usually causes great anxiety, affective speaking strategies (e.g., progressive relaxation, deep breathing, and meditation) can lower learners' communicative anxiety and positively influence their psychological and motivational factors. Social speaking strategies primarily involve asking questions, cooperating with others, and empathizing with others. They are utilized among peers and professionals to enhance speaking and communication competence (Rubin, 1975). Previous research has demonstrated the significance of social strategies in improving international students' speaking skills. Social speaking strategies are the most commonly used among international students (Park et al., 2017; Yunus & Singh, 2014). Similarly, Liyanage et al. (2014) reported that social speaking strategies serve as interactivity strategies for learners. Xu (2016) found that affective speaking strategies were the third most frequently employed strategy after compensation and memory strategies.

Malaysia has been identified as the top destination for Libyan international students seeking higher education (Said & Yassin, 2014). However, a review of related literature reveals that no previous research has focused on this population of learners in Malaysian higher education institutions. Furthermore, despite the Libyan Ministry of Education supporting Libyan students to study in the world's top 300 universities, there has been no reported consideration given to the preparation of these students before their enrollment in Malaysian universities, where the medium of instruction is English (Abduljalil, 2018; Said & Yassin, 2014). Therefore, the Libyan Ministry of Education would benefit from studies that investigate related issues from various perspectives, including the mediation effects of language anxiety and prior learning experience on academic speaking challenges and strategies, as well as exploring the challenges and strategies adopted by Libyan students in institutions abroad.

2. Research Questions

The following are the specific research questions addressed in this study:

RQ1: What are the academic speaking challenges faced by Libyan students studying in universities in Malaysia and what strategies are used to overcome these challenges?

RQ2: Is there a relationship between speaking challenges, strategies, language anxiety and prior experience among Libyan students in universities in Malaysia?

RQ3: What are the effects of language anxiety and prior experience on Libyan students' speaking challenges and strategies?

3. Research Hypothesis

Six hypotheses have been presented to test the relations and the cause and effect between the main constructs of the research as follows:

H1: There is a relationship between speaking challenges, strategies, and language anxiety among Libyan international students.

H2: There is a relationship between prior experience, speaking challenges and strategies among Libyan international students.

H3: Language anxiety significantly influences speaking strategies and strategies among Libyan international students.

H4: Prior experience significantly influences speaking challenges and strategies among Libyan international students.

H5: Language anxiety has a mediation effect between speaking challenges and speaking strategies.

H6: Prior learning experience has a mediation effect between speaking challenges and speaking strategies.

4. Research Methodology

An explanatory sequential mixed-methods research design (Creswell & Creswell, 2018) was implemented in two phases. An online questionnaire was administered via email. In the second stage, data was collected from interviews and focus group discussions with participants chosen from the survey respondents.

4.1 Participants and Sampling

The target population of the study consisted of Libyan undergraduate and postgraduate students from EFL educational backgrounds studying in Malaysian public universities with English as the language of instruction. This population was selected based on several criteria. The Libyan Ministry of Education sponsors Libyan students' higher education at the world's top 300 institutions, and among these, in

Malaysia, 5 public universities fit this criterion: Universiti Malaya (UM), University Putra Malaysia (UPM), Universiti Kebangsaan Malaysia (UKM), Universiti Teknologi Malaysia (UTM), and Universiti Teknologi Mara (UiTM). Additionally, Malaysian universities have become primary destinations for Libyan international students, ranking as the seventh-largest nationality (Said & Yassin, 2014). However, as mentioned earlier, there is a lack of specific information regarding Libyan students as an under-researched group, particularly regarding their unique communication challenges in English within the scope and location of this study. Furthermore, the exclusive selection of Libyan international students aligns with the aim of extending research in related fields by studying individuals from different societies separately to account for potential differences in social, cultural, and linguistic backgrounds across various countries. Therefore, the researchers used purposive sampling to select participants who were Libyan international students enrolled in Malaysian universities. The size and availability of the target population were determined in collaboration with the Libyan Embassy in Malaysia, which identified 257 Libyan students studying in the five Malaysian universities (UM, UPM, UKM, UTM, UiTM) in 2020. These students, aged 18 and above, were pursuing Bachelor's, Master's, and Ph.D. programs and were invited to participate in the survey. Ethical approval for human subjects was obtained from the Ethics Committee for Research Involving Human Subjects (JKEUPM) at UPM.

Given that survey response rates often depend more on sampling than other factors, the appropriate sample size for the survey was determined. Krejci and Morgan (1970) recommended a sample size of 155 for a population of 260. Additionally, based on Cochran's formula, a recommended sample size of 154 should be selected from the population of 257. Oversampling by 40-50% has also been suggested to compensate for questionnaires that are not returned or receive no responses (Salkind, 2012). Therefore, the optimal sample size for the quantitative phase was determined to be 216 (i.e., $154 * 0.40 = 62$; $154 + 62 = 216$). Respondents from the survey who met the study's criteria were invited for interviews and focus group discussion through the purposive sampling approach. Non-discriminative snowball sampling was employed. Research informants recommended other key informants based on their knowledge of the subjects. This practice allowed for an increase in the number of active informants willing to participate in the qualitative phase by increasing opportunities to approach Libyan students who are ready to share potentially sensitive information about their personal experiences and language challenges. The final sample was 15 participants for the interviews with four informants in the focus group discussion.

4.2 Instruments and Data Collection

4.2.1 Questionnaire

To ensure the reliability and validity of the instrumentation and that the newest available content was used, the study adapted previously published items from various resources: Oxford's (1990) Strategy Inventory for Language Learning Strategies (SILLS), Setiyadi's (2016) Language Learning Strategies Questionnaire (LLSQ), Evans and Green's (2007) speaking challenges, Oxford's (1990) and Setiyadi's (2016) speaking strategies, Horwitz et al.'s (1986) research on language anxiety, and Bennui's (2007) research on the prior experience.

The survey items were grouped into two main categories: speaking challenges and speaking strategies. An eight-point Likert scale was used for all the items in the questionnaire. Responses on speaking challenges encountered by the respondents ranged from 0 'Never face this challenge' to 7 'Every time face this challenge'. The questionnaire items for the respondents' use of speaking strategies range from 0 'Never use this strategy' to 7 'Every time use this strategy'.

The questionnaires were distributed via email to 257 Libyan students, and reminders were sent when responses were not received. 246 respondents returned the questionnaires. After the data from these questionnaires was cleaned and screened for bias, 223 questionnaires were accepted for the final data analysis. Exploratory data analysis was then conducted to check and clean the questionnaire data. This involved checking for missing data and outliers and verifying the normality of the data distribution. These procedures resulted in the acceptance of 223 valid responses which is in total, 86 % respondent rate.

4.2.2 Interview and Focus Group Discussion Questions

Face-to-face interviews of 30–40 minutes each were conducted with the 15 informants. Protocol questions on the study constructs were prepared for the interviews based on the questionnaire results and validated through a pilot study. Four informants participated in the group discussion, lasting 90 minutes in duration. Documentations, such as transcripts and field notes, were prepared for both phases of research, and member checks were performed. Sequential triangulation was used to confirm data saturation was achieved, thus ensuring the reliability and internal validity of the collected data. The data from these interviews and discussion were used in the qualitative analysis to support and explain constructs from the quantitative analyses.

4.3 Data Analysis

The questionnaire data were analyzed using SPSS Statistics version 25, AMOS version 24. Descriptive and inferential statistics, including correlational procedures and bootstrapping resampling path analysis using structural equation modelling were used for the relations between variables, the validity of the study model, and hypothesis testing. NVivo version 10 was used to analyse qualitative data gleaned from the interviews and focus group discussion.

5. Results and Findings

The results of the analyses of quantitative data from the survey questionnaires are presented along with a discussion of the findings from qualitative results gathered from the interviews and focus group discussion. The qualitative results complement the discussion of the quantitative data analyses, allowing for a more in-depth explanation of the findings to support conclusions on the participants' experiences with speaking challenges and their use of strategies to overcome these difficulties. This discussion is followed by SEM results of the

relations between language anxiety and prior experience with speaking challenges and strategies. Hypothesis testing based on correlational analyses of the study constructs follows, and bootstrapping resampling analysis results from testing of mediating effects of constructs are discussed in the final subsection.

The data were prepared for analysis with the variables transformed from an eight-point radial scale to continuous data. This was to categorize the data into low, medium, and high levels for speaking challenges, speaking strategies, language anxiety, and prior experience. A similar classification of data has been used in previous research (Mohammadipour et al., 2018) to facilitate the interpretation and explanation of descriptive and inferential statistics results.

As shown in Table 1 and Figure 1 below, the p-values of Bartlett’s test of sphericity reported significant sampling adequacy ($p=0.000$.) and scree plot that shows eigenvalues of component number of factors included in the study which are to be found within the range accepted cut-off point for the discrimination.

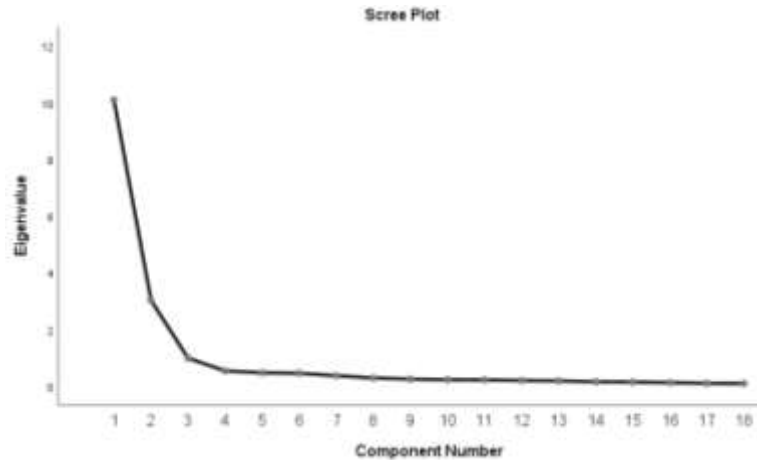


Figure 1. Scree plot for the study factors

Table 1. KMO and Bartlett's Test

Bartlett's Test of Sphericity	Approx. Chi-Square	4065.109
	df	153
	Sig.	.000

Significant at the $p < 0.000$

After ensuring the sampling adequacy for the study factors, the results below are organized according to the constructs comprising of speaking challenges, language anxiety, prior experience, and speaking strategies.

5.1 Academic Speaking Challenges

As shown in Table 2, 66 (29.6%) respondents reported a low level of experience with speaking challenges, 98 (43.9%) reported a moderate level, and 52 (26.5%) reported challenges at a high level. The overall mean result for academic speaking challenges is 3.41, with a standard deviation of 1.65.

Table 2. Speaking challenge levels

Level of Subjective norm	Frequency (n) & percentage (%)	M	SD
Low (0.00 – 2.339)	66 (29.6%)	3.41	1.65
Moderate (2.34 – 3.669)	98 (43.9%)		
High (4.67 – 7.00)	52 (26.5%)		
speaking challenges	<i>Total</i> $n = 223$ (% = 100.0)		

n = sample size, M = mean SD = standard deviation

Most respondents reported experiencing moderate difficulty with academic speaking, while average students expressed that they had high levels of such difficulty. The descriptive statistics results show that most respondents frequently speak with the lecturers or supervisors on academic topics or matters (17.0%) and (18.4%) often faced challenges in communicating ideas fluently. Most of the respondents reported often facing challenges to speak accurate academic English (15.7%) and using terms related to the field in academic discussions, lectures, and when sharing ideas (18.4%); and sometimes found it difficult having academic oral discourse with peers on academic topics or matters (21.1%) or exploring social norms such as values (19.3%) or participating in academic presentations (19.7%). Thus, the level of challenge associated with engaging in academic discourse with the lecturers or supervisors on academic topics or matters account for the highest percentage. This result indicates a serious obstacle to their oral discourse in academic contexts. Meanwhile, despite their obstacles in their academic communication and engagement, they tend to explore the academic context social norms and values which indicate that the participants have self-regulated learning and motivation towards overcoming their challenges. Previous research has also found speaking

challenges associated with speaking with lecturers or supervisors on academic topics or matters (Singh, 2019; Singh, 2014). These studies suggest that understanding accents present challenges to students' academic engagement in educational environments.

Analysis of qualitative data gathered from the interviews and focus group discussion provided more depth of understanding of the quantitative research data. Three main themes were identified, confirming the identification of speaking challenges experienced by Libyan students: a) accents, b) unfamiliarity with academic terminology in English language content and c) understanding in relation to cultural differences. These themes are discussed in detail below.

5.1.1 Lack of Language Proficiency

English language proficiency, which refers to the ability to communicate fluently and accurately in academic settings, is defined as the "visible" language proficiencies of pronunciation, vocabulary, and grammar, as observed in everyday interpersonal communication situations (Cummins, 1980). Respondents reported that their greatest challenge in academic speaking was difficulty engaging with lecturers or supervisors on academic topics due to their lack of language proficiency. This resulted in difficulties in expressing ideas fluently. The students may have lacked prior English language learning in their home country and had limited exposure to the language. These factors hindered the transfer of skills between the two languages, leading to anxiety. Glew (2013) also reported a similar finding among international students, emphasizing the role of academic and scientific terms in presenting ideas clearly and selecting appropriate words (field-related terminology). These concerns motivated students to engage more effectively and adopt self-regulated learning strategies in their academic pursuits.

Furthermore, Libyan students' recognition of their fears and anxieties about failure and embarrassing situations, such as making mistakes while speaking or communicating, made them reluctant to actively participate in academic engagement and communication in the academic setting. Their hesitancy to engage in discussions and communicate in English is primarily due to a lack of understanding of the academic context. During the interview, informant 2 provided additional information stating that challenges in delivering academic presentations and engaging in effective academic discussions stemmed from the lack of English language teaching and learning in Libyan education. Glew (2013) also reported challenges faced by international students in Australian universities, highlighting difficulties in using nursing terminology for interactions due to a lack of prior practice and knowledge.

Hence, these findings indicate that another critical factor for successful academic communication and discussion is the availability of academic terms and phrases in learners' repertoire. In other words, vocabulary knowledge plays a vital role in communication and academic debates (Boivin, 2013; Glew, 2013). Proficiency in vocabulary would facilitate and simplify communication, leading to increased willingness, motivation, and self-regulated learning among learners to actively participate and engage in academic discussions, drawing upon their academic backgrounds and strengths. However, Libyan informants expressed limitations in their knowledge of academic vocabulary, especially academic terminologies.

5.1.2 Lack of Content Knowledge in the Discipline/ Field of Study

Discipline content knowledge refers to understanding the subject matter and participating in academic discussions within an academic setting. As mentioned by the informants, challenges arising from a lack of understanding hinder their participation in academic presentations, engagement in academic discussions with lecturers or supervisors, and adherence to different social norms, including values related to teaching staff and peers. Libyan students were found to lack content knowledge in their respective disciplines or fields of study. This deficiency, similar to the challenge of understanding academic content knowledge, is also associated with a lack of terminologies and negative prior experiences with the English language. The statements made by students during the interviews support this perspective. Informant 9, who expressed difficulties with this challenge, provided additional information stating, "I faced challenges in understanding academic content due to the lack of training, practice, and use of the language in Libya in general, particularly in the scientific and academic field."

Thus, this result suggests that discipline content knowledge, which involves building and activating prior knowledge related to the present academic subject area, is a key element for successful academic communication engagement (VanPatten & Williams, 2015). However, such discipline content knowledge is not readily available among Libyan students. The obstacles Libyan students face in understanding academic discussions are rooted in a lack of prior knowledge, which amplifies their anxiety towards engaging in actual academic language practice and hampers their active participation, especially in academic discussions.

5.1.3 Lack of Academic Oral Communicating

Self-confidence, self-regulated learning, and motivation in academic communication involve the transfer of thoughts and beliefs in an academic setting to others through academic speech. The transition from one educational setting to another can either facilitate and increase international students' self-esteem, self-confidence, and self-regulated learning, as reported by Sandhu (2017), or hinder and result in a lack of self-confidence (Youssef, 2018). Libyan students lack confidence and experience hesitation, fear, and anxiety when participating in academic discussions due to their limited Academic English communication skills. For example, informant 2 provided additional information, stating that she faced "feelings of anxiety, fear, and hesitation to discuss with the supervisor and the lecturer and an inability to effectively engage in academic and discussion debates due to a lack of academic terminologies." Notably, their lack of self-confidence stems from recognizing their own challenges and the lack of prior practice in an academic setting. Informant 3 shared during the interview that she experienced "very negative feelings of fear and anxiety when engaging in academic discussions with lecturers, supervisors, and colleagues

due to the lack of emphasis on the English language in Libyan education and a lack of interest in learning it."

This indicates that self-confidence and self-regulated learning play a vital role in students' academic success, encompassing English language proficiency, discipline content knowledge, and prior practice. However, such confidence is not readily available among Libyan students.

Similarly, during the focused group discussion, the informants provided additional information and highlighted the challenges they face, including a) lack of language proficiency, b) lack of content knowledge in their respective disciplines, and c) lack of confidence in oral communication. For example, several informants expressed their challenges, as shown in the following excerpts:

"I studied courses in Libya and Malaysia before starting my master's and doctoral studies. Yet, I feel anxious and tense when communicating and fear academic discussions." (Respondent R)

"In my case, I faced serious challenges at the beginning of my studies. I struggled to communicate with my supervisor and engage in discussions in English due to anxiety and fear of the language." (Respondent A)

These findings are consistent with the results of Singh's (2019) study, which explored lecturers' views on international student challenges in academic communication skills. As mentioned in their research, international students encounter "academic speaking challenges, such as a lack of discipline content knowledge for communication, lack of confidence in oral communication, and lack of English language proficiency" (Singh, 2019, p. 205). Thus, this result indicates that high-order thinking skills are highly expected in speaking skills within the ESL context among learners. This refers to learners' ability for analysis and reasoning to meet individual cognitive needs (Lyytinen, 1985; Takac, 2008) based on rich, comprehensible input and reflects learners' communicative competence, which reflects their ability to contribute and engage in academic discussions. However, this is not the case among Libyan students, who report facing challenges in their academic speaking due to their lack of knowledge and usage in communicative competence, as well as negative prior experiences that hinder their participation and engagement in social interaction and academic discussions.

5.1.4 Academic Speaking Strategies

The summary of descriptive statistics on speaking strategies usage from the survey are presented in Table 3. The categories are classified according to low, moderate, and high use levels. The strategy results have an overall mean of 3.83 with a standard deviation of 1.41. These results show that 37 (20.6%) respondents reported low levels of speaking strategy use, while 127 (57.0%) reported moderate use of these strategies, and 50 (22.4%) reported high use of these strategies. Thus, the majority reported moderate use of speaking strategies.

Table 3. Speaking strategy levels

Level of speaking strategies	Frequency (n) & percentage (%)	M	SD
Low (0.00 – 2.339)	37 (20.6%)	3.83	1.41
Moderate (2.34 – 3.669)	127 (57%)		
High (4.67 – 7.00)	50 (22.4%)		
Total	n = 223 (% = 100.0)		

n, sample size; M, mean; SD, standard deviation.

The types of strategy are classified into six sub-constructs: metacognitive, cognitive, compensatory, affective, memory-related, and social speaking strategies. The descriptive statistics results for these constructs are shown in Table 4 below. Based on the mean of each sub-construct, it was found that the students most often used memory-related strategies (M = 4.16, SD = 1.67). The other strategies in order of importance were metacognitive, affective, compensatory, cognitive, and finally, the least used, social strategies (M = 3.36, SD = 1.66).

Table 4. Speaking strategy descriptive statistics

Total n	Construct	M	SD	L	R
223	Memory-related Speaking Strategies	4.16	1.67	M	1
	Metacognitive Speaking Strategies	4.10	1.54	M	2
	Affective Speaking Strategies	4.00	1.59	M	3
	Compensatory Speaking Strategies	3.93	1.65	M	4
	Cognitive Speaking Strategies	3.68	1.50	M	5
	Social Speaking Strategies	3.36	1.66	M	6
	Overall	3.83	1.41	M	

n, sample size; M, mean; SD, standard deviation; L, level; l, low; M, moderate; H, high; R, rank order.

The results for these constructs support the conclusion that the students preferred self-reliance and being more self-regulated learners and motivated towards improving their academic communication by employing memory-related and metacognitive strategies rather than social strategies in improving their speaking strategies. This conclusion is further supported by qualitative data gathered through the interviews with the participants and their focus group discussion. One participant, for example, reported feeling "more comfortable and confident" when memorizing first and then working on practising and having an academic practice before academic language presentations supported by speaking with the use of images in academic presentations and discussions, memorizing academic English terms and sentences related to the field of study, using a word or a sentence several times to remember it, and using the mirror to practice academic presentations or discussion. Considering this disparity, reliance on memory-related and metacognitive strategies could be indicative of low self-confidence

or fear of authority figures. The constructs are further discussed in the following sections.

5.1.5 Memory-Related Speaking Strategies

The memory-related strategies were the most frequently used speaking strategies by Libyan students (Table 4). The first sub-category of this strategy included in the survey questionnaire, "supporting my speaking with the use of images in academic presentations and discussions," was the most frequently used ($M = 4.53$, $SD = 1.95$), while the least frequently used was "using a mirror to practice academic presentations or discussions" ($M = 3.36$, $SD = 2.40$).

The strategy was reported as being employed by the participants to "memorize and repeat academic information" and apply it in "subsequent discussions and academic meetings." The strategy also involved note-taking to improve memorization when participants felt it was necessary. An interviewee explained, "memorization by reviewing and repeating using images among the participants plays an important role in communication and achieving successful discussions." Another interviewee mentioned that, "I rely on memorizing first and then work on practicing the English language. I memorize and repeat whatever academic information I learn in academic discussions and try to apply it in subsequent discussions and academic meetings" (Informant 2).

Additionally, during the interview, the informants' responses provided additional information emphasizing how they become more self-regulated learners using gestures. "I use pictures or any visual materials to try to convey the intended meaning during conversations and discussions" (Informant 13). During the focused group discussion, the informants agreed on the advantages of memory-related strategies and how they become more self-regulated learners and motivated to improve their speaking skills and academic engagement with others in an academic setting and understanding academic content:

"I believe that speaking in an academic setting involves communication with others, but in my case, I try to improve myself by memorizing new terminologies as I have a weakness in academic terminologies and practicing the language, which we didn't use to do in our Libyan education" (Informant F).

"Me too. I prepare in advance for discussions and presentations. For presentations, I include many images to help me explain what I am trying to present, so others can understand me faster as they can relate the pictures to what I am explaining" (Informant R).

"When I listen to my peers and lecturers and observe how they are using the language, and how they know what they are sharing and discussing, I feel so impressed" (Informant J).

These findings conclude that Libyan students relied on memory-related strategies, such as memorization from notes, to compensate for the lack of prior knowledge and the resulting language anxiety. Other studies on speaking strategies have reported that the use of memory strategies can vary among participants (Ho, 2014; Quadir, 2014; Yunus & Singh, 2014). For example, Ho (2014) reported that memory strategies are one of the most used strategies among some participants but are less frequent overall. Another study by Mohammadipour (2018) reported that memory strategies were the least used strategy among ESL learners.

Additionally, Oxford (1990) reported several factors influencing strategy choice, such as the degree of awareness, nationality, and the purpose of learning the language. More explicitly, due to Libyan students' fears, anxiety, lack of prior knowledge, and familiarity with academic speaking, as well as their limited understanding of the terminologies used in academic discussions and settings, they tend to heavily rely on memorization, using images, and reviewing what they learn to apply it in other academic discussions. Therefore, this result indicates that Libyan students have self-awareness of their challenges, which motivates them to improve their academic content knowledge and familiarity with academic terms.

5.1.6 Metacognitive Speaking Strategies

The second most frequently used type of speaking strategy among Libyan students in the study was metacognitive strategies. This type of strategy involves assessing learning resources to find important and relevant information. All metacognitive speaking strategies were used at a medium level. The most frequently used metacognitive strategy was performing academic practice before academic language presentations ($M = 4.52$, $SD = 1.99$), which was used every time by 23.8% of the students. Evaluating utterances after speaking in academic discussions or presentations ranked second in frequency of use ($M = 4.18$, $SD = 1.89$) and was frequently used by 17.0% of respondents. Correcting the mistakes made orally during academic discussions ($M = 4.03$, $SD = 1.83$) was often used by 22.4% of the students. Using silent discussion or "talking to myself" to improve academic speaking ($M = 3.70$, $SD = 1.96$) was reported to be frequently used by 19.7% of respondents.

The qualitative results revealed that participants relied on metacognitive strategies to improve their speaking comprehension while getting accustomed to academic discussions in English. For example, one participant reported taking responsibility for improving her speaking through self-evaluation and paying attention to her utterances. She stated, "I have to practice with myself before class discussions and meetings with my supervisor. I assess how well I speak, and during practice, I can identify my mistakes and weaknesses in delivering a discussion. So, I practice again and again until I reach a good level of academic speech" (Informant 15). Additionally, during the focus group discussion, students provided additional information about planning and preparation, as shown in the excerpts below:

"I used to prepare a lot for academic presentations and discussions" (Informant A).

"Yes, this is a good strategy. I spend about a week preparing and rehearsing due to anxiety and fear of presentations" (Informant F).

"Yes, I do the same. I adequately prepare for discussions and academic presentations" (Informant A).

Thus, the metacognitive strategy is a powerful strategy that empowers language learners. This strategy focuses on learners' self-awareness and improvement in language learning, such as organizing, consciously searching for practice, planning tasks, monitoring progress, paying attention, and purposeful speaking (O'Malley et al., 1985; Oxford, 1990). These results indicate that Libyan students are autonomous learners who take responsibility for improving their academic speaking skills. This finding is supported by O'Malley et al. (1985) and Oxford (1990), who view metacognitive strategies as aspects of learner autonomy that enable learners to assume independent responsibility in learning.

5.1.7 Affective Speaking Strategies

Affective speaking strategies were reported as the third most used out of the six types of strategies. This result corresponds to the findings of other studies that show learners do not often use this type of strategy (see Alhaysony, 2017; Fu et al., 2018; Kazemi & Kiamarsi, 2017; Quadir, 2014).

As many as 17.0% of the students claimed that they motivate themselves every time to calm down when they become anxious while speaking in academic discussions or presentations ($M = 4.32$, $SD = 2.04$). Additionally, 19.7% of the students frequently motivate themselves to take every opportunity to speak to other educators or scholars speaking English ($M = 4.30$, $SD = 1.92$), and 20.6% of the students often motivate themselves to speak in an academic context even though they lack speaking proficiency ($M = 4.13$, $SD = 2.04$). Furthermore, 16.1% of the students reward themselves when they speak academically about the content or matters in academic discussions ($M = 3.28$, $SD = 2.15$). These results correspond to the responses from the qualitative research phase regarding self-motivation.

One participant remarked that when she could not understand the content of a discussion, she would try to calm down and motivate herself to focus and try to guess the meaning. She said, "Although I have prior practice, I feel worried and anxious in any class or discussion. I feel like I cannot say anything, so I try to calm down and motivate myself to be part of the discussion and try to communicate as much as I can" (Informant 4). In the same regard, during the focus group discussion, the informants expressed intrinsic motivation to improve their language skills and lower their anxiety to engage in academic settings and understand the academic content.

One informant mentioned, "I have to prepare intensively before class and rely on translation as I am a little bit hesitant to ask the lecturer and my peers for clarifications" (Informant F). Another informant said, "In my case, I don't feel ashamed because of my weakness in English. I motivate myself to improve my communication skills by getting into academic discussions in the academic setting and trying to speak, even though I know that I have language challenges" (Informant F).

In this regard, a study by Xu (2016) also reported affective speaking strategies as the third most frequent strategy after compensation and memory strategies, which focused on "lowering one's anxiety, encouraging oneself, and taking one's emotional temperature" (p.72). Similarly, a study by Sioson (2011) found that affective speaking strategies were the second least used strategy by the participants to improve their speaking performance.

The above results suggest that affective strategies promote a sense of agency and aspiration to learn in the face of challenges and obstacles. The researchers also believe that the cognitive approach cannot function to improve linguistic proficiency and academic competence without the supportive function of motivation in lowering anxiety and increasing self-confidence.

5.1.8 Compensatory Speaking Strategies

The questionnaire data revealed that compensatory speaking strategies were the fourth most used strategy. The Libyan students were found to rely on this type of strategy, using synonyms they know to help them in their academic discussions. This was the most frequently used compensatory strategy with the highest recorded mean ($M = 4.35$, $SD = 2.00$). In contrast, they frequently used gestures or pauses to make up for missing knowledge ($M = 3.99$, $SD = 2.09$) and used gestures to share ideas and thoughts during academic discussions ($M = 3.99$, $SD = 2.09$), accounting for 15.7% and 17.5% respectively. From the interviews and discussions, it is apparent that learning academic terms by using academic sentences related to academic topics or matters was the compensatory strategy used the least by 17.0% of respondents ($M = 3.65$, $SD = 2.14$).

One informant, for example, noted that despite having prior practice for academic discussions, they mostly rely on the knowledge and terms they know from previous classes, discussions, and meetings in an academic setting (Informant 15). Another interviewee mentioned, "I try to explain and engage in discussions by using synonyms that I know. I also use gestures, mostly pictures, to facilitate my engagement within academic discussions" (Informant 4).

This result indicates that the compensation strategy helps learners gain appropriate linguistic knowledge from the surrounding literary context, such as peers, supervisors, and other academic staff. Singh (2014) reported that international students' strategies to overcome their challenges consist of recording classroom lectures, seeking help from others, and taking notes. Similarly, a study by Gani et al. (2015) reported that the use of compensation speaking strategy was the greatest among other strategies, as the research mentioned: "low-performance students tended to focus more on employing compensation" (p.29), indicating the learners' need to focus more to improve their speaking. Additionally, learners also use synonyms when they encounter terms and words with the same or similar meaning.

5.1.9 Cognitive Speaking Strategies

Cognitive speaking strategies were reported as the second least frequently used strategy among Libyan students. This strategy involves enhancing academic speaking by watching English online/TV programs, with the highest reported mean for usage ($M = 4.20$, $SD = 1.98$) at

16.1%. Other strategies include explaining what they want to share in academic discussions in different ways ($M = 3.96$, $SD = 1.79$) and using note-taking before responding orally to questions ($M = 3.69$, $SD = 2.07$), accounting for 15.7% and 16.6% respectively. Additionally, the first language, Arabic, seems to influence the structure of academic English sentences, with a mean of ($M = 3.58$, $SD = 2.25$) and a frequency of 14.3%. Sometimes, respondents mix Arabic and English words if they don't know the English words, which had the lowest mean ($M = 2.97$, $SD = 2.23$), with 18.8% of respondents reporting they had never used the strategy.

Data from interviews and focus group discussions also support the quantitative results regarding the participants' use of TV and YouTube content on academic topics as a strategy. During the interviews, informants acknowledged the advantages of watching YouTube videos on academic programs, noting that it was "one of the most effective strategies" (Informant 9). Another participant commented on this strategy being "faster and easier" as peers were not "available at all times." In the focus group discussion, participants explained that this strategy was helpful in improving speaking skills and reducing anxiety about academic encounters.

Moreover, the responses during the interviews seemed to corroborate and clarify the quantitative data. Libyan students' cognitive speaking strategies appear to rely less on speaking to online and TV programs to improve their speaking. Note-taking, structuring academic English sentences, and mixing Arabic and English words were used to improve their speaking ability.

During the focus group discussion, informants agreed on the advantage of the note-taking strategy to improve their speaking and confidence in their academic engagement. They mentioned that it also reduced their anxiety and fears toward speaking and communicating with others in an academic setting, and helped them understand the academic content. Some statements from the discussion include:

"I would normally use note-taking to prepare notes that facilitate and support my speaking" (Informant F).

"It is a supportive way to ask and speak with others. At least, I would be confident that the note content is correct" (Informant J).

"I feel note-taking improved my critical thinking to follow up on academic discussions and understand the content" (Informant A).

5.1.10 Social Speaking Strategies

Social speaking strategies involve seeking support from peers and lecturers, and this strategy usually plays an important role in improving language proficiency, providing "increased interaction and more empathetic understanding" (Alhaysony, 2017, p. 20). However, in the present study, the strategy was reported to be the least used among Libyan international students (Table 4). According to the descriptive statistics data from the questionnaire survey, participating or presenting in conferences or workshops to improve academic speaking was the most frequently used sub-category of social speaking strategies ($M = 3.69$, $SD = 2.10$), while asking somebody to correct me when talking during a discussion in academic contexts was the least used by Libyan students ($M = 2.75$, $SD = 2.24$). These results may be explained by the anxiety expressed by participants in the qualitative phase of research regarding social situations. For example, one respondent explained, "I like to have self-practice before I practice with my peers, so then I feel more comfortable by reducing the number of mistakes." The informant's responses during the interview provided additional information regarding their use of social strategy implementation and pre-sessions in English language learning courses.

"I attend workshops and conferences as a participant more than as a presenter because of my fear and anxiety of making mistakes and not performing well," another informant mentioned. "I try to engage and practice with my peers as much as I can, but I still feel hesitant and challenged because it is different from my home country where we don't use English at all to communicate."

During the focus group discussion, some informants agreed on the advantages of social strategies in improving their speaking and academic engagement:

"It is better to communicate with people of other nationalities" (Informant F).

"Prepare for academic presentations and practice in front of peers and friends multiple times, which reduces tension and anxiety and boosts confidence" (Informant A).

This research indicates that Libyan students are not satisfied with these strategies to improve their speaking. This result may be explained by their lack of confidence, fear of cultural differences, and lack of prior practice. By understanding the culture and considering others' feelings, learners will speak more carefully and be able to express themselves without being misunderstood due to cultural differences (Rubin, 1975). Studies by Park et al. (2017) and Yunus & Singh (2014) found that social speaking strategies are the most used strategies among participants. Similarly, Liyanage et al. (2014) reported the role of social speaking strategies as interactivity strategies for learners, stating that "social-affective strategies address interactivity processes in language learning" (p. 47).

5.2 Path Analysis and Hypothesis Testing

This section discusses the results of structural equation modelling. Path analysis was performed on the quantitative data to determine model fit based on the principal constructs of the study, and discriminant validity analysis was done for relations between latent and model constructs. This is followed by results of hypothesis testing relying on correlational analyses of the study constructs. Finally, results are discussed from the bootstrapping resampling analysis used to determine the mediating effects of prior experience and language anxiety between speaking challenges and strategies.

5.2.1 Model Fit of the Speaking Measurement Model

The goodness-of-fit (GOF) testing results for the study's speaking measurement model values of the incremental fit indices ($CFI=0.960$,

IFI=0.961, and TLI=0.954) are all above 0.9, indicating the adequacy of fit for the speaking measurement model. The relative chi-square (χ^2/df) result of below 5.0 indicates an acceptable fit between the hypothetical model and the study data (Marsh & Hocevar, 1985), while the RMSEA value (0.81) indicates evidence of absolute fit.

5.2.2 Discriminant Validity

Table 5 below, presents the correlation among the endogenous and exogenous variables of the study (speaking challenges, speaking strategies, language anxiety, prior experience)

Table 5. Construct correlational analysis results and descriptive statistics

Construct	SCs	SSs	CLA	PLE
1. Speaking challenges	1			
2. Speaking strategies	.458**	1		
3. Language anxiety	.763**	.469**	1	
4. Prior learning experience	.734**	.516**	.731**	1
Mean	3.41	3.83	3.35	3.87
SD	1.65	1.41	2.01	1.90
Skewness	.110	.101	.169	-.053
Kurtosis	-.420	-.240	-1.099	-.985
Level	M	M	M	M

**Correlation significant at the $p < 0.01$ level (2-tailed); n, sample size; M, mean; SD, standard deviation; L, level

The correlations between the constructs ranged from .458 to .763 ($p < 0.001$). Following Hair et al. (2019), no multicollinearity was found among the variables in the speaking measurement model. The variables communication language anxiety and speaking challenges were moderately correlated with speaking strategies. They were a moderately correlated prior experience and speaking challenges with speaking strategies, indicating substantial relationships according to Guilford’s Rule of Thumb (Cowles, 1974). Furthermore, language anxiety was found to be highly correlated with the prior experience, indicating a significant relationship. With support from the interviews and focus group discussion, this result may indicate generalisability to the total population of Libyan international students.

Table 6. Correlation matrix for all constructs

Constructs	CR	CLA	PLE	SC	SS
Language Anxiety (LA)	0.957	0.848			
Prior Experience (PE)	0.914	0.569	0.732		
Speaking Challenges (SC)	0.939	0.626	0.582	0.692	
Speaking Strategies (SS)	0.945	0.235	0.253	0.208	0.741

As shown in Table 6 above, discriminant validity of the relationships between latent constructs and model constructs involves determining the average variance extracted (AVE) for each latent construct in the model. In this test, the AVE for any latent construct should be greater than the squared correlation of any pair of latent constructs in the model, thus indicating discriminant validity. The R correlation coefficient is also obtained, and if the value of R is greater than .90, there is a violation of discriminant validity. The squared correlations between language anxiety, prior learning experience, speaking challenges, and speaking strategies constructs were all below .90, indicating discriminant validity of the constructs,

5.2.3 Hypothesis Testing

Hypothesis testing of the study’s six hypotheses was based on the structural model of the relationships between language anxiety and prior experience with speaking challenges and strategies. The structural model fit, assessed separately from other possible models, was utilized to determine how well the research theory fit the sample data model (Hair, 2019). Regression analysis results for the speaking structural model indicate absolute model fit ($\rho = 0.000$, $\chi^2/df = 2.031$, RMSEA = 0.068, CFI = 0.963, IFI = 0.963, TLI = 0.956, GFI = 0.866 and AGFI = .828). Results of the correlation analysis on all constructs (Table 7) comprise the data used for the following discussion on the hypotheses of this study. This is followed by the results of the bootstrapping resampling analysis to determine the mediating effects of prior experience and language anxiety on speaking challenges and strategies.

Table 7. Effects of language anxiety and prior experience on speaking challenges and strategies

Hypothesized Relationship	B	SE	Beta	CR	P
Language Anxiety					
Speaking Challenges	1.128	0.103	0.811	10.955	***
Speaking Strategies	0.166	0.075	0.249	2.206	0.027
R = .81					
R ² = .66					
Prior Experience					
Speaking Challenges	1.144	0.103	0.783	11.054	***
Speaking Strategies	0.213	0.068	0.335	3.156	0.002
R = .78					
R ² = .61					

B, unstandardized regression weight; SE, standard error; Beta, standardized regression weight; CR, critical ratio

5.2.3.1 Language Anxiety’s Influence on Speaking Challenges and Strategies

Results presented in Table 7 on the contribution of language anxiety to speaking challenges and strategies show speaking challenges were influenced the greatest ($\beta = .811$) followed by speaking strategies ($\beta = .249$). The multiple correlation coefficient results reveal that language anxiety was highly correlated with speaking challenges and strategies at $R = .81$, accounting for 66% of the constructs' variance ($R^2 = .66$). The results in Table 7 above, further show that the correlations between language anxiety and speaking challenges ($R = .81, p = .000$) and between anxiety and speaking strategies ($R = .81, p = .027$) were positive and statistically significant. Furthermore, according to Guilford’s Rule of Thumb, language anxiety was highly correlated with speaking challenges and strategies. Moreover, the results reveal that language anxiety contributed significantly to the speaking challenges of the Libyan students participating in the study ($\beta = 0.811, p < 0.000$) as well as their language strategies (the qualitative results of the study further support $\beta = 0.249, p < 0.027$), and these data. Therefore, both H1 and H2 are accepted.

5.2.3.2 Prior Experience’s Influence on Speaking Challenges and Strategies

The results on the contribution of prior experience in speaking challenges and strategies Table 7 above, shows speaking challenges were again influenced the greatest ($\beta = .783$), by speaking strategies ($\beta = .335$). The multiple correlation coefficient for the relations between these constructs is moderate ($R = .78$), with prior experience accounting for 61% of the variance in speaking challenges and strategies ($R^2 = 0.61$).

The correlation between prior experience with speaking challenges and strategies was statistically significant ($R = .78, p = .000$), and speaking strategies were statistically significant ($R = .78, p = .002$) according to Guilford’s Rule of Thumb. This result indicates that prior experience was moderately correlated with speaking challenges and strategies. Moreover, the results Table 7 above, shows that prior experience significantly influenced the speaking challenges of the participants ($\beta = 0.783, p < 0.000$) as well as their speaking strategies ($\beta = 0.335, p < 0.002$). Therefore, H3 and H4 are both accepted.

5.2.4 Bootstrapping Mediation Analysis

SEM using AMOS was applied through the bootstrapping method with single-step multiple mediator models to test anxiety's direct and indirect effects and prior experience on speaking challenges and strategies. This bootstrap method produces two results for the speaking model. The bootstrapping method for mediation analysis was used to assess the roles of anxiety and prior experience on the relations between speaking challenges and strategies. Resampling and replacement from the original data set ($N = 223$) were performed 4,000 times. Measurement of the indirect effect was based on a 95% confidence interval. The resulting mediation model for academic speaking has absolute model fit ($\rho = 0.000, \chi^2/df = 2.031, RMSEA = 0.068, CFI = 0.963, IFI = 0.963, TLI = 0.956, GFI = 0.866$ and $AGFI = .828$) As shown in Table 7, the upper-bound and lower-bound standardised indirect effects of the mediation modelling are greater than zero (0.114, 0.701), which indicates bias-corrected statistical significance of the indirect effects at the 0.05 level.

Four mediation models produced through the bootstrap method are summarised in Table 8. The results for the direct model, where direct paths were set as constraints and paths set to zero, revealed a significant effect of speaking challenges on speaking strategies ($\beta = 0.472, p < 0.000$). The variables language anxiety (LA) and prior experience (PE) were tested individually for the three mediation models. Also, both language anxiety (LA) and prior experience (PE) were also tested together as mediators in one model.

Table 8. Mediation effects of language anxiety and prior experience between speaking challenges and speaking strategies

Model/hypothesized paths	Beta	P	95% CI Bootstrap BC	
			LB	UB
Direct model				
Speaking Challenges → Speaking Strategies	0.472	0.000		
Mediation Model				
Speaking Challenges → CL → Speaking Strategies	0.187	0.090		
Standardized Indirect Effects	0.284	0.001	0.114	0.490
Speaking Challenges → PI → Speaking Strategies	0.160	0.118		
Standardized Indirect Effects	0.311	0.000	0.181	0.446
Speaking Challenges → LA & → Speaking Strategies	0.019	0.898		
Standardized Indirect Effects	0.464	0.000	0.275	0.701

PE, prior experience; LA, language anxiety; CI, confidence interval; BC, bias-corrected; LB, lower bound; UB, upper bound

The model for speaking challenges’ partial mediating effects on speaking strategies through communication language anxiety yielded a significant result ($\beta = 0.187, p < 0.090$). Furthermore, the bootstrapping resampling analysis revealed that LA produced a significant mediating effect as indicated by the standardized indirect effect (SIE) result ($\beta = 0.284, p < 0.001$) 95% upper- and lower-bound bias-corrected limits of 0.114 and 0.490, accordingly. Based on these results, it may be concluded that language anxiety partially mediated the relationship between speaking challenges and strategies.

The second mediation model for speaking challenges’ mediating effect on speaking strategies on prior experience yielded a significant result ($\beta = 0.160, p < 0.118$). Furthermore, the bootstrapping resampling analysis confirmed language anxiety’s significant moderating effect in the SIE result ($\beta = 0.311, p < 0.000$) 95% upper- and lower-bound bias-corrected limits of 0.181 and 0.446, accordingly. Thus, the prior experience is found to have partially mediated the relationship between speaking challenges and strategies.

In contrast to the above models, the results on the mediation model for speaking challenges’ effects through both language anxiety and prior experience on speaking strategies were not significant ($\beta = 0.019, p < 0.898$). However, the SIE results from the bootstrapping resampling analysis indicate that language anxiety and prior experience had a significant mediation effect on the relationship between speaking challenges and strategies ($\beta = 0.464, p < 0.000$) with 95% upper- and lower-bound bias-corrected limits of 0.275 and 0.701, accordingly. These results indicate that prior experience and language anxiety mediate the relationship between speaking challenges and strategies. Therefore, both H5 and H6 are accepted.

6. Discussion

There were several academic speaking challenges experienced by the participating Libyan international students studying in Malaysian higher education institutions. These included language proficiency problems, lack of content knowledge in the discipline/field of study, and lack of confidence in oral communication.

Past research on EFL international students who further their study in ESL yielded findings concurrent with what has been reported in the present research (Attrill et al., 2016; Halali et al., 2021; Singh, 2019; Yates & Wahid, 2013). Lack of cognitive knowledge of the L2 that needs to be emphasized through long and earlier language learning and practiced due to a lack of prior experience resulted in serious language articulation and practical challenges. For instance, Attrill et al. (2016) reported that international students’ prior education experiences raised challenges in their academic speaking and led to poor academic performance. Similarly, Jalleh et al. (2021), who conducted a study among international students in Malaysian universities, reported that international students faced challenges in academic speaking practices due to their insufficient prior English language learning and practice, resulting in different learning experiences and increased anxiety and communication apprehension.

The reactions of Libyan students toward their challenges are concurrent with the beliefs in the Cognitive theory (Piaget, 1936), communicative competence by Hymes (1976), and the Affective Filter Hypothesis (Krashen, 1982). Communicative competence is applicable and strong within learners if prior comprehensible input is generated and improved through cognitive awareness. Simultaneous implementation and practice of the language will be more effective in the learner’s long- and short-term memory, helping to lower the affective filter and improve the learner’s communicative competence. On the other hand, a lack of prior practice and language learning negatively affects learners’ cognitive awareness and results in poor communicative competence. Learners become anxious and have a higher effective filter that blocks any chance of comprehensible input. Similarly, many researchers (Adarkwah & Zeyuan, 2020; Kurum & Erdemli, 2021; Wu, 2019) have reported that international students face challenges in their academic speaking due to a lack of communicative and linguistic competence.

The participants’ results regarding speaking strategies revealed that students most often employed memory-related speaking strategies, followed by metacognitive, affective, compensatory, cognitive, and social strategies, as attempts to overcome their academic speaking problems in academic contexts. Thus, they preferred self-reliance and being more self-regulated learners, supporting speaking strategies when needed. They used images in academic presentations and discussions, memorized academic English terms and sentences related to the field of study, repeated words or sentences several times to remember them, used the mirror to practice academic presentations or discussions to improve their speaking skills, and sometimes resorted to translation into Arabic (their mother tongue) to improve their communication. The students also relied to a lesser extent on compensatory and cognitive speaking strategies by using synonyms and

gestures or pauses to compensate for missing knowledge, watching English online/TV programs, and using note-taking before communication in academic discourse. These strategies emphasize autonomy to overcome the effects caused by performance anxiety related to inadequate language ability. Social strategies were used the least frequently, indicating that self-reliance outweighed socialization as an option for improving speaking comprehension. This may be due to the students' social inhibitions regarding unfamiliar cultural differences, the language distance resulting from being EFL speakers with little practical experience, and their fear of appearing to have lower communicative competence than their interlocutors. Libyan students are reluctant to use social strategies, which can be argued to be due to the effective factor (Lee et al., 2015). Libyan students have tolerance for their challenges; however, they tend not to explicitly introduce their challenges to others in an academic setting through interaction.

The correlational analyses on the relationships between language anxiety, prior experience, academic speaking challenges, and strategies indicate that both speaking challenges and strategies are essential factors affecting learners' communicative competence in speaking. The findings support the argument that prior experience "is a potentially important educational variable" (Dochy, 1988, p. 1), and that language anxiety plays an important role in the linguistic processing of information (Halali et al., 2023; Horwitz et al., 1986; MacIntyre & Gardner, 1994). This also agrees with previous research that found relations between inadequate levels of academic speaking skills and learner anxiety (Elkhafaifi, 2005; Fathi et al., 2020; Horwitz et al., 1986; MacIntyre & Gardner, 1994; Mohamed et al., 2021; Young, 1992). This finding provides a useful perspective on the role of strategies in reducing anxiety levels among EFL or ESL learners in academic situations. Moreover, the finding from the mediation analysis that both language anxiety and prior experience mediate the relationships between speaking challenges and strategies strengthens this conclusion.

However, it is essential to note that these findings are inconsistent with the studies by Enciso (2010), Yang (1998), and Yunus & Singh (2014). For instance, Yunus & Singh (2014) reported the role of the metacognitive speaking strategy, mentioning that "students should be made aware of using these strategies to build up learners' independence and autonomy towards promoting lifelong learning" (p. 210). Thus, this result indicates that Libyan students continue to think about their challenges and how to overcome them by monitoring their performance and reviewing their implemented strategies. Additionally, they are taking more responsibility for improving their speaking challenges, resulting in Libyan students becoming autonomous learners and more self-regulated and motivated, which is inconsistent with the studies by Alotumi (2021) and Salsabila & Maharsi (2023). In the same vein, the use of the metacognitive strategy is more closely related to autonomous and self-regulated learners, which directly influences motivating learners to improve their communicative competence, emphasizing the lowering of learners' anxiety.

The set of speaking strategies that the participants are implementing indicates the importance of self-motivation by watching others who are familiar, experts, and native speakers of the language in the academic setting. This has an important role in improving and recognizing the required communicative competence that learners expect in the academic setting (Bojović, 2020). This is one of the features of the cognitive speaking strategy that relies on deductive reasoning. Thus, the cognitive speaking strategy is "helpful in enabling learners at the higher levels of language anxiety not to get blocked and to continue the interaction" (p. 195). This result indicates that cognitive speaking strategies help learners understand how to use and communicate in English by putting more emphasis on lowering anxiety.

As this research demonstrates the effective use of a mixed-method approach in studying affective factors in language learning and use, it is recommended that further research adopts a similar methodology. Similar research should be carried out on Libyan international students in other locations such as the US and UK to compare the results of this research with data from similar students studying in native English-speaking countries. Moreover, research should be conducted on the factors affecting academic English learning and use among students of various cultures and social backgrounds. Finally, more research is needed on the factors that affect learning challenges and their associated mediating strategies.

7. Summary

The communication challenges faced by Libyan students, caused by their lack of prior learning experience, affected their cognitive and communicative competence, as explained by Piaget (1936) and Hymes (1976). This resulted in a blocking of their comprehensible input (Krashen, 1982), leading to communicative language anxiety and diminished motivation and self-confidence.

The descriptive statistics for the quantitative data on academic speaking strategies reported that Libyan students had moderate levels of experience with speaking strategies. Among the six main strategy classifications, which include cognitive, metacognitive, memory-related, compensatory, affective, and social speaking strategies, Libyan students relied more heavily on memory-related and metacognitive speaking strategies compared to the other strategies. This finding was supported by the qualitative data collected from informants in the interviews and focus group discussions. This agrees with Yang et al.'s (2018) finding that memory-related strategies were the most frequently employed by participants whose prior language learning was based on traditional rote learning methods. Quadir (2014) found that memory-related speaking strategies were important in enhancing learners' language proficiency, particularly in vocabulary and their ability to recall lexical items.

Even though the students had access to linguistically rich communicative contexts that could have provided opportunities to improve their speaking skills, they were reluctant to implement social strategies that fostered communicative engagement and the exchange of ideas and experiences. The students attributed their reluctance to employ social strategies to their inadequate knowledge of academic terms and consequent anxiety about involvement in situations where they would fail to perform adequately in academic speaking. As a result, they chose to motivate themselves and be self-dependent and self-regulated, attempting to improve their academic speaking skills through

memory-related and metacognitive strategies.

8. Implications and Conclusion

This finding confirms the Libyan students' lack of communicative competence in comprehending speech in academic discourse in English speaking academic environments. Additionally, the significant effects of communication language anxiety and negative prior learning experience on international students' linguistic performance indicate the necessity of reducing their communication language anxiety through enhancing learners' self-regulation and practicing academic listening and speaking skills in their home countries' educational systems. This is particularly important for international students with EFL educational backgrounds who are furthering their studies in contexts where instruction is in English.

Furthermore, the pre-session English programs at Malaysian universities should align with students' fields of study and research, with an emphasis on the academic terminology specific to each field. The programs should also enhance students' abilities to perform in academic discourse in English, as well as improve their socialization abilities and cultural awareness of their new academic settings. Therefore, based on the findings, a possible solution is to revamp the pre-session English programs conducted by Malaysian universities, as the current programs are too demanding for the students.

The research findings also emphasize the importance of language learning theory in understanding and improving the academic listening and speaking communication skills of international students with prior EFL learning experience. This aspect of the findings implies the need to consider the integration of socio-academic approaches to enhance learning through environmental factors in international students' new educational settings, including their peers, lecturers, supervisors, and other academic staff, to support them in improving their language learning and enhancing their communicative competence.

In conclusion, this study found that language anxiety and prior experience significantly affect communication and language learning. The research revealed the importance of language anxiety and prior experience in academic speaking skills and students' mediating speaking strategies. The findings indicate that considering and responding to these factors, along with other factors such as emotional states and responses (Amiryousefi, 2019; Slaughter et al., 2023), may reveal their relations to language learning processes.

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