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# Students' Motivation and Speaking Difficulties in Science: Basis for an Action Plan

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***Abstract*—***In multilingual classrooms where English serves as the primary medium for global scientific communication, many middle school students face difficulties expressing themselves, which often hinders their understanding of complex scientific concepts and reduces both participation and motivation. This study aims to examine the interconnected challenges of speaking difficulties and declining motivation among Grades 6–9 students in Moroccan science classes during the 2024–2025 academic year, while proposing strategies to effectively address these barriers. Guided by Vygotsky's sociocultural theory, the research introduces an integrated instructional approach that blends flipped-classroom vocabulary modules, scaffolded peer dialogues, and inquiry-based laboratory activities. This comprehensive model is designed to build students' confidence, lower anxiety levels, and foster greater engagement by merging language development and content learning in every science lesson. The action plan enables students to decode scientific vocabulary, express ideas with improved clarity, and participate more actively in classroom activities. It also highlights the value of transforming language barriers into opportunities for learning and personal growth. By focusing on both linguistic and motivational factors, the study provides educators with a practical framework for designing inclusive, engaging, and student-centered science classrooms. The findings underscore that purposeful teaching strategies not only enhance English oral proficiency but also strengthen students' intrinsic motivation and self-efficacy, allowing them to overcome learning obstacles. Ultimately, this study demonstrates that well-structured interventions can empower learners to succeed academically and communicate more effectively within the global scientific community, ensuring they are better equipped to thrive in today's interconnected world.*

***Keywords*—** *Active learning strategies, self-efficacy, student motivation, speaking difficulties.*

## I. INTRODUCTION

Globally, students' motivation and speaking difficulties in learning science are shaped by a mix of cultural, educational, and socio-economic factors. Factors like teaching styles, learning environments, and access to resources play crucial roles in influencing motivation. Studies have shown that when students experience learner-centered or inquiry-based approaches, their curiosity and engagement in science grow (Ryan & Deci, 2020). However, disparities in resources and teacher preparation mean that motivation levels can vary significantly from one country to another. The critical importance of English language proficiency in today's global academic and professional environments underpins this study. As the primary medium for international communication, collaboration, and knowledge exchange, English has become a key factor in achieving success in an increasingly interconnected world. Academically, English facilitates access to extensive research, literature, and learning resources, thereby expanding students' opportunities for growth and contribution to global scholarship. Professionally, strong English skills are often associated with improved job prospects, career advancement, and the ability to work in diverse, multinational settings. Therefore, enhancing English competency is crucial for individuals seeking to excel in the competitive global landscape (Galloway, 2020).

Recent studies on student motivation reveal its complex nature and the various influencing factors. Ryan and Deci (2020) emphasize the importance of both intrinsic and extrinsic motivation, noting that enhancing intrinsic motivation leads to greater engagement and improved academic performance. Additionally, Wang et al. (2021) demonstrate that supportive teacher-student relationships significantly boost motivation, while Schunk and Zimmerman (2021) highlight that goal setting and self-regulated learning are crucial for maintaining motivation, further supported by Sinha et al. (2022), who found that technology integration positively affects student engagement.

Studies on vocabulary teaching and learning have extensively explored the challenges non-native speakers face.

### *Theoretical Framework*

This was based on Lev Vygotsky's Sociocultural Theory of Human Learning, which provides a valuable framework for analyzing the speaking difficulties encountered by middle school students in a selected school in Morocco. Vygotsky emphasizes that learning is fundamentally a social process, where cultural and societal contexts shape human intelligence. A crucial element of this theory is the role of social interaction as an essential factor in cognitive development, suggesting that individuals acquire knowledge and skills through collaborative engagement with others (Wang, 2022; McLeod, 2023).

Vygotsky also stresses the significance of adults in promoting youngsters' cognitive growth by involving them in meaningful activities and imparting cultural knowledge. This engagement not only transmits knowledge but also cultivates critical thinking skills. His theory advocates for collaborative learning, whether between teachers and students or among peers. Educational strategies like scaffolding and reciprocal teaching, derived from his principles, have proven effective in enhancing the learning experience (Berk & Winsler, 2022). Vygotsky believed that meaningful learning occurs most effectively within a community setting.

Lev Vygotsky's Sociocultural Theory of Human Learning is essential for understanding the challenges students face with motivation and speaking difficulties in science, particularly in



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selected secondary schools in Morocco. Vygotsky asserts that learning is fundamentally a social process influenced by cultural interactions and collaborative engagement, making social interaction vital for students navigating the complexities of scientific vocabulary and concepts, especially when learning in a second language. In Morocco, where science is often taught in English, creating collaborative learning environments can significantly enhance student motivation and reduce speaking difficulties. Engaging in meaningful activities with peers and teachers enables students to improve their language skills and scientific understanding, which is further supported by the concept of the zone of proximal development (ZPD). By scaffolding learning experiences, teachers can help students bridge the gap between their current abilities and potential, fostering both confidence and motivation, crucial for mastering technical vocabulary and complex scientific ideas (McLeod, 2023; Wang et al., 2021; Berk & Winsler, 2022).

*Conceptual Framework*

Utilizing the theoretical framework previously discussed, the researcher presented an Input-Process-Output model, as illustrated in Figure 1. This model functioned as a foundational guide to steer the methodology during the research study's implementation. The research examined the speaking difficulties faced by selected middle school pupils and their motivation to speak English in the context of learning Science. This comprehensive study identified the key input variables, including the demographic profiles of respondents, such as age and sex, alongside a speaking difficulty scale and a motivational scale to evaluate the students' performance in these areas. The subsequent phase, termed the process,

*Conceptual Framework*

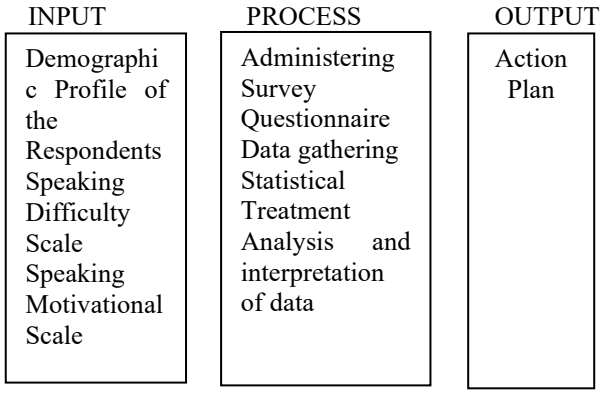


Figure 1. Conceptual Framework

encompasses administering survey questionnaires, gathering data, and performing statistical treatment, analysis, and interpretation of the results. Finally, the study concluded with the anticipated outcomes presented in the form of a strategic intervention plan for addressing barriers to Science learning.

*Statement of the Problem*

This study aims to determine the speaking difficulties encountered by middle school pupils and their motivation for speaking English in the context of learning Science.

The research sought answers to the following questions:

1. What is the demographic profile of the respondents in terms of:
1.1 Sex and
1.2 Grade Level?
2. What is the assessment of the respondents in speaking difficulty in terms of:
2.1 Linguistic Factor;
2.2 Psychological Factors; and
2.3 Learning Environment Factor?
3. What is the level of students' motivation in learning Science in terms of:
3.1 self-efficacy;
3.2 active learning strategies;
3.3 science learning value;
3.4 Performance Goal;
3.5 achievement goal; and
3.6 learning environment stimulation?
4. Is there a significant difference in the assessment of the respondents ' speaking difficulty when grouped according to profile?
5. Is there a significant difference in the level of students' motivation when grouped according to profile?
6. Is there a significant relationship between the assessment of the respondents in speaking difficulty and the level of students' motivation?
7. Based on the findings of the study, what action plan may be proposed?

Hypotheses

The following null hypotheses were tested in the conduct of the study.

There is no significant difference in the assessment of the respondents in speaking difficulty when grouped according to profile.

There is no significant difference in the level of students' motivation when grouped according to profile.

There is no significant relationship between the assessment of the respondents ' speaking difficulty and the level of students' motivation.

*Scope and Limitations of the Study*

This study aims to determine the speaking difficulties faced by middle school pupils, composed of grades 6, 7,8, 9 and their motivation for speaking English in the context of learning Science, ultimately leading to the development of an action plan to address these issues. The research involved selected middle school pupils taught by the researcher at a select school in Morocco during the 2024-2025 school year. The study was prompted by the observed low motivation among students to speak English in Science classes, which hinders their understanding of scientific terminology and concepts. To collect relevant data, the researcher utilized standardized tests, which provided valuable insights for developing a plan of action that will include effective strategies to improve students' language skills and engagement in Science learning. Through a proposed action plan, the results of this study helped inform targeted interventions to enhance both language proficiency and motivation, making Science education more accessible and engaging for students.

*Significance of the Study*

The expected outcomes of this study are intended to benefit the following stakeholders:

Students. This study can enhance students' motivation and speaking skills in English, improve their understanding of scientific concepts, foster a supportive learning environment, boost their confidence and academic performance, and design targeted interventions to reduce language barriers.

Teachers. The study can provide teachers with insights into effective strategies for improving student motivation and addressing speaking difficulties, allowing them to create more engaging and supportive science learning environments.

Parents. The study may help parents understand the challenges their children face in learning science in English, enabling them to provide better support and encouragement to enhance their motivation and communication skills.

Principals. The study can provide principals with insights into the factors affecting students' motivation and speaking skills in science, helping them implement policies and allocate resources to improve teaching strategies and student outcomes effectively.

Community. The study's findings can benefit the community by promoting a culture of learning and support for educational initiatives, ultimately leading to better educational outcomes and fostering a well-educated population.

Future Researchers. The study can serve as a valuable reference for future researchers by providing insights, data, and a framework for further exploration of students' motivation and language-related challenges in science education, especially in multilingual contexts.

*Definition of Terms*

The following terms were defined operationally to clarify their significance and application within the context of this study.

Learning Environment or Environmental Factors. This refers to the external conditions and influences surrounding language learners that can impact their speaking abilities. These include factors such as classroom dynamics, teacher-student interactions, cultural influences, and the overall learning environment in which language acquisition occurs.

Linguistics Factors. This refers to the elements related to language structure, including syntax, vocabulary, and pronunciation, which contribute to an individual's ability to effectively communicate in a given language.

Motivation in Speaking the English Language. This refers to the motivation or incentive that drives individuals to engage in verbal communication.

Psychological Factors. This refers to the psychological factors that influence language acquisition and expression, such as self-confidence, anxiety, self-efficacy, and individual attitudes towards language learning. These elements play a significant role in shaping an individual's ability to communicate verbally.

Speaking Difficulties. This refers to the challenges and obstacles that respondents encounter when trying to express themselves verbally in a specific language. These difficulties include linguistic, psychological, and environmental factors that hinder effective spoken communication.

## II. Review of Related Literature

This chapter aims to examine various concepts drawn from previously published studies, research articles, and theses relevant to the subject matter. The insights gained from the existing academic literature serve as essential references, providing a strong foundation for the current research. This approach ensures that the study not only builds on previous work but also adds to the ongoing conversation within the field.

*SPEAKING DIFFICULTIES: Linguistics Factors*

Speaking remains a challenging skill for many English language learners, shaped by both linguistic and psychological elements. Factors such as language proficiency, teaching methods, curriculum design, and the learning environment contribute to these difficulties. Key barriers identified include anxiety, shyness, fear of errors, and lack of motivation. To alleviate these issues, instructors should adapt their teaching strategies to address the unique strengths and weaknesses of each learner.

The 2021 study by Amoah and Yeboah examines the communicative obstacles experienced by Chinese English Foreign Language (EFL) learners as well as their desire to participate in English discourse. They find that psychological factors, such as anxiety and fear of making mistakes, have a greater impact than linguistic factors like vocabulary and grammar proficiency. The authors recommend fostering a supportive learning environment and incorporating strategies like regular oral presentations to enhance EFL learners' speaking confidence. The study reveals that conversing in English with foreign peers, dealing with grammatical errors, and projecting confidence are significant hurdles for many participants. Furthermore, gaining proficiency in speaking English in stressful situations and mastering pronunciation are persistent challenges. Importantly, the study highlights the role of motivation in English speaking, with participants demonstrating moderate levels of integrative motivation, such as an increased interest in their teacher's lessons and a fondness for English media and music. Instrumental motivational factors include expressing opinions in class, confidently engaging with teachers and peers, passing exams, joining English debating clubs, impressing educators, and delivering academic presentations (Amoah & Yeboah, 2021).

Similarly, Putri et al. (2021) identified four key factors contributing to speaking difficulties among eleventh-grade students at SMA Negeri 2 Tembilahan: personal factors, teaching strategies, curriculum, and environmental influences. The main challenge faced by students is the gap between the written form and pronunciation of words, influenced by low vocabulary mastery, difficulty in pronunciation, confusion about word order, and fear of making mistakes. Over half of the students responded positively to a questionnaire distributed to 40 participants, emphasizing the importance of addressing these challenges to enhance English speaking skills. Effective teaching methods, a well-designed curriculum, and a supportive learning environment are crucial for improving proficiency, as a solid grasp of grammar, vocabulary, and pronunciation plays a key role in effective communication (Putri et al., 2021).



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Additionally, research published in the Indonesian EFL Journal found that primary English students at a university in South Sumatra demonstrated low proficiency in speaking, with only 42% achieving satisfactory performance (Jaya et al., 2022). The study highlighted multiple factors contributing to these speaking difficulties, including issues with self-confidence, limited social opportunities to practice English, and linguistic challenges such as fluency, grammar, vocabulary, and pronunciation. Specific causes included insufficient general knowledge, a lack of regular speaking practice, fear of making mistakes, and low motivation. Other obstacles noted were nervousness, the pressure of demanding coursework, and reluctance to use dictionaries. The Chi-Square Association Test employed in the study revealed significant associations between these challenges and their underlying causes, emphasizing the multifaceted nature of speaking difficulties in English as a foreign language. Addressing these issues would require a comprehensive approach that combines linguistic support, confidence-building activities, and opportunities for authentic practice.

Furthermore, a study conducted at Muhammadiyah Lampung University during the COVID-19 pandemic highlighted several challenges faced by students in speaking English, which were exacerbated by the shift to online learning (Pratiwi & Prihatini, 2021). Key difficulties included understanding spoken conversations, limited vocabulary, issues with pronunciation, shyness, grammatical errors, and technological barriers such as poor internet connectivity. Among these, a lack of confidence was identified as a major obstacle to achieving speaking proficiency. The study emphasized the need for consistent practice, enhanced grammar comprehension, and vocabulary acquisition as crucial components for improving fluency. In response to these challenges, the authors recommended fostering students' confidence through supportive learning environments, incorporating listening skills into language instruction to build comprehension, and adapting teaching methods to suit the demands of remote education. These findings underline the importance of a holistic approach that addresses both linguistic skills and psychological factors to improve students' speaking abilities, especially in a pandemic-induced virtual learning context.

Chand's 2021 investigation into English language teaching in Nepal revealed that students' speaking proficiency is hindered by personal, social, environmental, and linguistic barriers. These obstacles include course content limitations, over-reliance on the mother tongue, inadequate early education, and classroom dynamics that do not promote active language use. To address these issues, the study recommended creating supportive learning environments, encouraging learner autonomy, revising course content, and incorporating speaking activities to improve the quality of education. Similar challenges are observed in other countries, such as the Philippines, where students struggle with English pronunciation, vocabulary acquisition, and applying the language in real-life situations. Speaking skills are particularly challenging, with factors such as sociocultural influences, classroom dynamics, and teacher practices contributing to difficulties like inhibition, limited participation, and reverting to native languages. Although teachers play a crucial role in developing speaking fluency, students often lack sufficient opportunities to practice English in the classroom (Chand, 2021).

Likewise, Ai et al.'s (2020) research explored the challenges faced by Pakistani ESL learners in acquiring speaking skills in an English as a Second Language (ESL) context. The study, which surveyed 100 learners from both provincial and federal capitals of Pakistan using a quantitative approach, highlighted a variety of obstacles. These included psychological barriers, such as anxiety and fear of judgment, which hinder learners' ability to speak fluently. Linguistic challenges, including limited vocabulary and difficulty with pronunciation, further compounded these issues, making it difficult for students to express themselves effectively. Additionally, social barriers, such as insufficient opportunities to practice speaking English outside of the classroom, significantly affected learners' progress. The study underscored the need for targeted interventions to address these multifaceted challenges, emphasizing the importance of supportive environments and opportunities for authentic language practice to help Pakistani ESL learners improve their speaking skills.

Moreover, in Pakistan, the prevailing educational system tends to prioritize native language learning, and traditional classroom environments are still predominant. As a result, many Pakistani learners experience insecurity and hesitation when attempting to speak English fluently. The lack of structured opportunities for public speaking practice further exacerbates their reluctance. Learning any language, especially a second one, is inherently challenging due to the influence of entrenched patterns from the first language. Psychological barriers such as fear of making mistakes, anxiety, peer pressure, and low self-esteem are significant obstacles to developing speaking skills. Social factors also play a crucial role, including the limited use of English in both formal and informal settings, unsupportive classroom dynamics, and insufficient resources and peer interaction, all of which hinder speaking proficiency. Additionally, linguistic challenges, such as insufficient vocabulary, pronunciation issues, and difficulty understanding English syntax, compound these problems.

Furthermore, previous research has highlighted the substantial impact of psychological, social, and linguistic factors on ESL learners' difficulties with speaking English. However, this study faced certain limitations, such as a limited sample size and a specific focus on Pakistani ESL learners within the ESL context. Despite these constraints, the findings provide valuable insights into the complex challenges faced by Pakistani learners in improving their English-speaking skills. It emphasizes that these challenges are prominent in ESL settings, where contextual, instructional, and situational factors significantly affect language learning outcomes (Ai et al., 2020).

*Psychological Factors*

The study conducted by Alrasheedi in 2020 delves into the psychological factors that influence the speaking performance of Saudi EFL learners. Through a survey of 200 participants at Majmaah University in Saudi Arabia, the study identified key



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affective factors, such as shyness, peer pressure, anxiety, and fear of mistakes, which significantly affect students' ability to speak English. In addition to these psychological influences, students faced challenges related to insufficient vocabulary, limited exposure to the target language, and the lack of opportunities to practice speaking outside the classroom. This research contributes to the broader literature on English language learning (ELL) by closely examining the emotional factors affecting speaking performance among Arabic-speaking EFL learners.

The study underscores that fear of failure is a predominant factor, with learners highlighting the scarcity of opportunities to use English in daily life as a significant barrier. Challenges in improving speaking skills include not only affective issues but also insufficient exposure to the target language, which is crucial for mastery and retention of a second language. This lack of exposure is a common obstacle faced by learners in similar educational contexts worldwide, not just by Arab students. Furthermore, the study emphasizes the importance of motivation, both instrumental (practical benefits such as career advancement) and integrative (the desire to integrate culturally), in achieving language proficiency. Internal factors, such as anxiety and lack of confidence, are closely linked to external influences like classroom dynamics and teaching methods, which can either exacerbate or alleviate these issues. Alrasheedi's research provides a comprehensive understanding of the multifaceted challenges faced by Saudi EFL learners, highlighting the interplay between psychological, linguistic, and social factors in language acquisition.

Moreover, the study highlights that inadequate familiarity with English acts as a significant external factor that hampers students' speaking abilities. Developing a solid understanding of sound production and pronunciation is essential for learners to enhance their speaking skills. The research emphasizes the need for teachers to employ effective teaching techniques, adopt student-centered methodologies, and create a learning environment free of anxiety to support the acquisition of English-speaking skills. Such an approach would allow learners to become more comfortable using the language, thereby improving their proficiency.

This study underlines the complex interplay between various psychological, linguistic, and sociocultural factors that impact the speaking performance of university-level English language learners in Saudi Arabia. The affective factors, including anxiety, fear of mistakes, and lack of confidence, are further exacerbated by insufficient exposure to the target language and limited speaking practice opportunities. Addressing these issues requires a concerted effort from educators to focus on methods that foster learner motivation and minimize language anxiety, ultimately leading to better speaking performance (Alrasheedi, 2020). By acknowledging and mitigating these diverse factors, the study contributes to improving the quality of English language education in similar contexts globally, offering valuable insights into the challenges and strategies for enhancing speaking proficiency in EFL learners.

Furthermore, speaking anxiety in English poses a significant challenge in the teaching and learning processes, particularly in India, where English functions as a key alternative language. This paper explores the various factors contributing to speaking anxiety among final-year Arts and Science college students across different disciplines, as well as the strategies they have implemented to overcome these challenges. English has gained global significance as a language associated with all academic and professional fields, being taught as a second language. Proficiency in English is essential for accessing both national and international job markets. The framework of English language teaching encompasses four key dimensions: speaking, listening, reading, and writing.

Anxiety, which is a complex experience that includes feelings, emotions, and personality traits, can be divided into psychological and physiological aspects, as well as internal and external factors. Key contributors to speaking anxiety include linguistic challenges, such as grammar and pronunciation, peer pressure, stage fright, lack of confidence, and shyness. This study aims to assess the awareness of these anxiety-inducing factors among final-year Arts and Science college students and to analyze the self-improvement strategies they employ. A qualitative approach was utilized, employing open-ended questionnaires distributed to 50 final-year students from various disciplines to collect and analyze the data. Language anxiety proves to be a multifaceted issue impacting students differently based on their specific language usage contexts. Addressing these factors can assist students in overcoming language anxiety and enhancing their overall English-speaking performance. Teachers should discern the needs of their students and meticulously devise activities and suitable teaching models tailored to meet their requirements (Rajitha & Alamelu, 2020).

Similarly, the article by Aziz and Kashinathan (2020) presents a thorough examination of studies published from 2014 to 2021 regarding the challenges faced by ESL learners in Malaysian classrooms. The study focuses on two primary questions: the specific challenges ESL learners in Malaysia encounter while speaking English and the effective strategies to overcome these difficulties. A comprehensive review of fifteen studies indicated that ESL students face both internal and external barriers in their speaking proficiency. The authors recommend that the educational system place greater emphasis on fluency rather than accuracy, encouraging students to participate in presentations and role-playing activities.

Moreover, psychological factors such as anxiety, shyness, and fear of classroom participation can impede student engagement in discussions. Given English's critical role as an international language in Malaysia, it is essential for students to develop proficiency for academic success and to thrive in a competitive job market. Low confidence, fear of making mistakes, and a limited vocabulary are all factors that might cause speech problems. The Malaysian Education Blueprint 2013-2025 aims to create a globally competitive English language education system based on the Common European Framework of Reference for Languages (CEFR).

In addition, to tackle these challenges, practical strategies include addressing motivation, managing anxiety, overcoming inhibition, and expanding vocabulary knowledge. One effective



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approach identified is Mobile-Assisted Language Learning (MALL), which employs constructivist pedagogical principles to enhance speaking skills in a supportive and user-friendly environment (Aziz & Kashinathan, 2021).

Additionally, Khasawneh's 2021 study examines the difficulties students encounter while learning English at MTs Al Washliyah Kolam in Indonesia. Utilizing a mixed-methods approach that includes observations, interviews, and document analysis, the research seeks to understand both students' difficulties and the strategies employed by educators to support them. The findings indicate that internal factors, particularly anxiety and a lack of motivation, play a significant role in influencing students' speaking proficiency. Among the strategies students use to navigate these challenges, self-repair emerges as the most common, accounting for 36.2% of their responses, followed by the use of fillers (28.5%) and code-switching (11.8%). Based on these results, the study recommends that teachers focus on training students in effective communication strategies and integrate these skills into speaking activities. The research also highlights the importance of a well-rounded approach that includes listening, speaking, reading, and writing. Educators are encouraged to embed these components into their teaching practices to assist students in overcoming speaking challenges. Factors such as learning disabilities and non-linguistic issues can further hinder students' acquisition of English as a foreign language. To address these barriers, teachers should adopt innovative teaching methods, utilize effective instructional materials, and create engaging classroom activities.

For instance, role-playing and drilling exercises can help students articulate their understanding of English more confidently. Additionally, leveraging online platforms like Free4talk.com, Open Talk, and Eng-Breaking can significantly enhance students' speaking skills. The study concludes that anxiety and inadequate presentation skills are the most impactful factors affecting students' English speaking proficiency. This underscores the need for educators to implement suitable learning activities and strategies designed to alleviate these challenges and promote greater fluency in spoken English (Khasawneh, 2021).

On the other hand, Budjalemba and Lisyani's 2020 study examines the factors contributing to students' challenges in an Academic Writing course, focusing on 22 students who were retaking the course in the 2018/2019 academic year. The research identifies two primary categories of factors affecting students: internal and external. Internal factors include self-motivation, self-confidence, lack of knowledge, and the pressure felt by students, all of which hinder their performance in academic writing. Grammar, in particular, stands out as a significant obstacle, resulting in feelings of inadequacy and decreased motivation. Other internal challenges involve students' background knowledge and their overall English proficiency levels.

Likewise, external factors also play a role, such as the teaching style of instructors, the classroom environment, the available materials, and specific writing requirements. The atmosphere of the classroom, time constraints, and strict academic writing rules further exacerbate students' difficulties. Despite these challenges, students adopt various coping strategies, including reading relevant articles, consulting dictionaries, leveraging technology, and practicing their writing skills. While some students demonstrate improvements in areas such as idea development, use of academic vocabulary, grammatical accuracy, word formation, and paraphrasing techniques, others continue to face academic hurdles. The study emphasizes the need for educators to develop effective teaching methods and strategies to help alleviate students' difficulties in academic writing. It also highlights the importance of further research to address the limitations identified in the current study (Budjalemba & Lisyani, 2020).

In a similar vein, Abdullah et al.'s 2021 research looks at how the Flipped Classroom Model (FCM) affects the self-assurance of students learning English as a Foreign Language (EFL) in their spoken fluency. Conducted with 27 undergraduate students at Buraimi University College in Oman, the research employs a mixed-methods approach that includes self-confidence questionnaires, reflective journals, and focus group interviews. The results indicate a notable improvement in students' self-confidence regarding their English-speaking abilities following the implementation of the FCM. The study also examines the role of cooperative learning, highlighting how it encourages greater interaction among students and promotes autonomy in constructing their learning experiences. The FCM environment fosters active learning, enhances student-teacher interactions, and encourages learners to take responsibility for their education. As a result, educators are urged to adopt learner-centered approaches and cooperative learning strategies to enhance student engagement and independence in learning. The findings reveal that the FCM significantly boosts students' self-confidence in English speaking, with the most pronounced improvements seen in non-verbal communication skills, followed by verbal communication. The authors conclude that the FCM has great potential to enhance students' self-confidence in their English speaking proficiency. They recommend further research to investigate the model's effects on additional learning variables and language skills, ideally utilizing a more robust experimental design with larger participant samples (Abdullah et al., 2021).

Learning Environment or Environmental Factors

English has become the global lingua franca, facilitating communication among people from various nationalities and cultures. Its importance extends across many domains, particularly in academia, where it is often viewed as essential for accessing knowledge and resources. In Ethiopia, however, English functions more as a foreign language than a second language, largely due to its limited practical application outside the classroom environment. Students have fewer opportunities to engage with the language informally, which hinders their proficiency.

On the other hand, although English is designated as a second official language in Ethiopia, its role is more comparable to that in countries where it is considered a foreign language. Many Ethiopian students struggle to understand their teachers' instructions and the content of their textbooks, which negatively impacts their educational experience. This often leads to students copying incomprehensible notes from the

blackboard, thus undermining the effectiveness of English as a medium of instruction and transforming it into an obstacle rather than a tool for learning. Motivation to learn English among students stems from various aspirations, such as obtaining lucrative jobs, excelling in national examinations, migrating abroad, or pursuing careers that require proficiency in English. Despite this motivation, students frequently express dissatisfaction with their English teachers and note the lack of supportive learning environments and adequate resources. Additionally, social factors—including attitudes toward native speakers and influences from peer groups and families—play a significant role in shaping students' perceptions of English.

Moreover, educational dynamics, including teaching methodologies, classroom sizes, and seating arrangements, further complicate students' experiences with the language. Many students also struggle with English due to exam-oriented study habits, insufficient exposure to proficient English models, and a fear of making mistakes, which can stifle their willingness to engage with the language (Getie, 2020). Research indicates that addressing these barriers requires a multifaceted approach, including improved teaching methods, fostering a more supportive classroom atmosphere, and providing ample opportunities for authentic English language use outside of formal education settings. By creating a more conducive environment for English language learning, Ethiopian educators can help students develop the necessary skills and confidence to succeed academically and professionally.

Wahyuningsih and Afandi's (2020) study on the challenges faced by Indonesian undergraduate students at the State Islamic Institute of Kudus emphasizes the critical importance of a well-structured curriculum, the integration of technology and social media, and the provision of ample opportunities for English-speaking practice. The research highlights several significant challenges, including limited vocabulary, inadequate grammar mastery, difficulties with pronunciation, and a lack of confidence among students. Educators are essential in developing students' speaking skills by fostering interactive communication practices and considering factors such as source, input, and feedback during interactions. A notable barrier to progress is language anxiety, which can diminish students' interest in learning and impede their overall advancement. To address this, educators can create more effective learning materials and activities aimed at reducing speaking anxiety. Strategies like drill exercises and game-based learning can be particularly beneficial.

Moreover, providing corrective feedback and utilizing dynamic assessment techniques can enhance students' comprehension and self-regulation. The study advocates for the creation of well-designed English-speaking curricula that incorporate technology and social media, enabling students to engage actively with English-speaking communities. This approach offers numerous opportunities for oral practice, both in and out of the classroom. Challenges related to vocabulary, grammar, and pronunciation can be alleviated through increased exposure to language elements, cognitive processing, and personalized learning experiences. Social interaction is vital for improving English proficiency, especially in Indonesia, where students predominantly communicate in Javanese and often struggle to find English-speaking peers outside the classroom environment. To effectively tackle these challenges, English language education departments should focus on enhancing learning activities, implementing innovative English programs, integrating social and cultural elements into the curriculum, and refining pedagogical strategies. This comprehensive approach aims to bolster students' communicative competence, ultimately improving their overall English language proficiency (Wahyuningsih & Afandi, 2020).

In addition, Chien et al.'s (2020) study explores the impact of peer assessment within spherical video-based virtual reality (SVVR) environments on the speaking proficiency and learning perceptions of English as a Foreign Language (EFL) students. By providing authentic English-speaking contexts, the research aims to enhance students' speaking skills while encouraging them to give and receive peer feedback on their performances. In the context of a high school English course, the findings revealed that the peer-assessment-based SVVR approach yielded more favorable outcomes compared to the non-peer-assessment variant. Positive feedback was shown to improve students' speaking performance, while critical feedback had a potentially harmful effect. Interestingly, feedback deemed inconsequential correlated negatively with student performance in later assessments. The study emphasizes the significance of allowing learners to express their perceptions and comments, which fosters critical thinking and reflective practices in language learning. The research utilized a Virtual Reality (VR)-based English conversation system integrated within the EduVenture VR framework. This system enables educators to curate learning materials, maintain student portfolios, adjust assessment items, and design learning scripts, thereby enhancing the educational experience. Students can access the SVVR applications using smartphones or tablets, facilitating engagement with learning materials and the management of self-portfolios. The research design featured two distinct modes of SVVR: one focused on peer assessment and the other not. Utilizing ANCOVA to analyze the data, the study validated the effectiveness of the peer assessment approach in improving students' English-speaking performance, boosting motivation, cultivating critical thinking skills, and reducing anxiety related to English learning. This study contributes to the understanding of how innovative technologies like SVVR can create supportive learning environments that enhance language proficiency. By integrating peer feedback into these immersive contexts, educators can promote more effective language learning practices (Chien et al., 2020).

Likewise, the COVID-19 pandemic has prompted a significant shift to online learning for university students in Mexico, requiring them to adapt to new technologies and learning environments. A study aimed to evaluate how environmental factors—specifically lighting, noise levels, and temperature—affect the academic performance of these students during the pandemic. The researchers designed a questionnaire and administered it to 206 students online, constructing a structural equation model to analyze the relationships between the variables based on three hypotheses. The findings revealed that environmental factors like temperature, lighting, and noise have a significant direct impact

on students' academic performance. Importantly, the study highlighted that students could regulate aspects such as lighting, noise, temperature, and air quality within their online learning environments, which contributed positively to their academic outcomes. The majority of respondents were males aged between 20 and 30, with varying marital statuses.

Additionally, the study explored the broader impacts of online classes on various skills, including academic performance, communication, teamwork, and creativity. Data analysis was performed using SPSS 24 software, applying measures such as average variance extracted (AVE) for assessing validity and variance inflation factor (VIF) to check for collinearity among variables. The study concluded that the transition to online learning during the pandemic resulted in improvements in academic performance and enhanced communication, teamwork, and creativity among students. This research underscores the importance of environmental factors in online education and suggests that effective management of these elements can lead to better academic outcomes for students during challenging times like the pandemic (Realyvásquez-Vargas et al., 2020).

In addition, Miciak and Fletcher's (2020) article provides a comprehensive examination of dyslexia, a learning disability that significantly impacts literacy and language skills. The authors discuss best practices for identifying and addressing dyslexia within the context of multi-tier systems of support (MTSS). They contend that dyslexia is defined by particular deficits in reading and writing skills, as well as a lack of empirical data to support this categorization. of a sufficient response to instruction based on evidence. The article advocates for a "hybrid" identification process for dyslexia, which focuses on gathering relevant data related to these specific markers. Traditional teaching methods often prove ineffective for students with dyslexia, but the authors emphasize that appropriate interventions such as the use of information technology and supportive counseling can help alleviate these challenges. While phonological processing issues have been emphasized as a primary cause of dyslexia, the authors note that relying solely on this factor may not reliably identify dyslexia or other related reading and spelling difficulties. Various methods for identifying dyslexia include IQ-achievement discrepancy models, Patterns of Strengths and Weaknesses (PSW) approaches, and Response to Intervention (RTI) frameworks. The authors highlight the critical importance of early intervention in preventing or mitigating reading challenges, reiterating the role of instruction in this process. Continuous monitoring of a student's response to instruction is also essential after risk factors are identified. Miciak and Fletcher propose a three-pronged "hybrid" approach to dyslexia identification that integrates data on symptoms, individual achievement, and instructional response. This approach aligns with the recommendations made during the 2001 Learning Disabilities Summit and the Individuals with Disabilities Education Act (IDEA) of 2004, aiming to create a more effective framework for addressing dyslexia in educational settings.

Furthermore, Neuro-linguistic programming (NLP) is a psychological approach aimed at helping individuals address dysfunctional schemas, such as automatic thoughts, negative beliefs, and implicit biases. This paper reviews research on the effectiveness of NLP in challenging situations, particularly for individuals with disabilities, and examines its potential applications within virtual reality (VR) environments. The findings suggest that NLP equips individuals with special educational needs with strategies to quickly adopt mindsets that counteract implicit biases and promote positive behaviors and academic success. VR complements NLP methodologies by aiding in the reduction of unintended biases and enhancing users' ability to embrace flexible perspectives, envision positive outcomes, and perceive themselves more realistically, which may lead to decreased symptoms of depression. Both NLP and positive psychology have shown effectiveness across various educational settings, particularly in special education contexts. Research highlights the success of NLP techniques in boosting students' confidence, self-esteem, and language skills.

Furthermore, VR demonstrates potential in managing distress associated with traumatic events and fostering positive beliefs. NLP has been effective in alleviating anxiety, depression, and post-traumatic stress disorder (PTSD). For instance, a study involving 50 patients with claustrophobia revealed a notable decrease in median anxiety scores, with many participants reporting reduced fear levels. Additionally, VR has played a vital role in combating implicit biases and negative stereotypes, enabling users to shift away from entrenched thinking patterns (Drigas et al., 2022).

*Motivation for Speaking the English Language*

The link between motivational orientation and competency levels among Iranian EFL students was the focus of a study conducted by Vaseghi et al. in 2020. The study involved 60 learners, divided into intermediate-level groups based on gender. The Attitude/Motivation Test Battery (AMTB) was used to measure the connection between motivation and English proficiency. Findings indicated a significantly positive correlation, with higher motivation associated with greater proficiency. Female learners consistently outperformed male learners across various measures. The study highlights the essential role of motivation in language acquisition, emphasizing how it fuels learners' desire for mastery. In second language acquisition, motivation is key, driving learners' efforts to acquire a foreign language due to need or aspiration. Empirical evidence suggests that highly motivated language learners tend to excel in English proficiency tests, and motivational strategies in the classroom can boost learners' enthusiasm for language learning.

In addition, the study unearthed gender disparities, particularly favoring females, emphasizing the need for tailored language instruction aligned with learners' inclinations. Refraining from affecting attitude and motivational facets can impede students' language learning progress. Thus, educators should extend support through instructional strategies, skill development, and fulfilling relatedness needs to amplify student engagement, participation, and academic dedication. Additionally, teachers ought to cultivate a conducive environment, tailor content to students' interests, and factor in gender dynamics within the language learning milieu (Vaseghi et al., 2020).

Similarly, Khan and Takkac's (2021) study explored the motivational drivers of new immigrants learning English as a second language in Canada. The research identified several key factors influencing motivation, including career advancement, economic improvement, effective communication, and cultural integration. Interestingly, the aspiration for global citizenship showed little correlation with demographic variables, with gender being the only notable exception. The diverse backgrounds of these newcomers contribute unique perspectives and motivations toward acquiring English, highlighting the complexity of their learning experiences. This study emphasizes the significance of understanding grading patterns and gender-related trends in uncovering the motivational factors behind mastering the English language.

In addition, Daif-Allah and Aljumah's (2020) investigation into the motivations of 247 Saudi university students for learning English highlights the substantial influence of motivation on foreign language acquisition. The study reveals differing perspectives on English learning across genders and academic majors, underscoring the importance of learner-centered practices that recognize individual perspectives and competence needs. Specifically, the research finds that students' academic majors and gender significantly affect their motivation to learn English. Female students demonstrated higher motivation compared to their male counterparts, while no significant differences in motivational orientations were found among university students overall, suggesting a common inclination towards integrative, instrumental, and coercive goals. The study advocates for the development of tailored EFL courses, instructional strategies, teacher roles, and assessment methods that help students perceive English as a crucial tool for achieving their personal and professional objectives. By aligning instructional approaches with learners' goals, educators can better support students in meeting their aspirations. The study also emphasizes the need for EFL curricula to take into account students' specific aspirations, thereby fostering more effective engagement with the language. Moreover, Daif-Allah and Aljumah's work calls for future research that investigates differences in students' motivational orientations and the impact of motivation on EFL proficiency across various regions of Saudi Arabia or other Arabic-speaking contexts. Such research would provide a deeper understanding of how contextual factors influence motivation and language learning outcomes, potentially guiding the development of more responsive and effective language education programs. This nuanced approach can help address the unique needs of different learner populations, enhancing overall language proficiency and fostering a positive attitude towards English as a valuable asset.

Moreover, Zhang et al.'s (2020) study on the relationship between motivation and proficiency in a second foreign language among senior English majors from seven universities in Shaanxi Province, China, provides valuable insights into how different motivational types affect language learning outcomes. The research emphasizes the positive influence of both instrumental and integrative motivations on second foreign language proficiency. Interestingly, the concept of foreign language enjoyment is identified as a mediating factor, suggesting that learners' enjoyment of the process significantly enhances the effects of their motivations on language acquisition. The study involved 589 senior English majors who had recently completed their required second foreign language courses. It investigated the role of multiple factors—including gender, academic standing, university classification, learning approach, and post-graduation plans—in shaping learners' proficiency in their second foreign language. The findings reveal that both instrumental motivation (such as career advancement and practical benefits) and integrative motivation (the desire to connect with the target language culture) positively impact students' self-rated proficiency levels. Zhang et al. found that gender, academic standing, and the type of university attended influenced students' proficiency, highlighting the complex interplay between individual characteristics and contextual factors in second language learning. The results suggest that students who enjoy their foreign language studies are more likely to translate their motivations into successful learning outcomes, indicating that promoting enjoyment can be a powerful strategy for enhancing proficiency. The study advocates for educational practices that foster both enjoyment and motivation in second foreign language courses. By creating engaging learning environments that support both instrumental and integrative motivations, educators can help students not only achieve higher proficiency levels but also develop a positive attitude toward language learning. Moreover, understanding the impact of learners' post-graduation plans and academic environments can assist in designing targeted interventions that align with students' personal and professional goals, ultimately supporting their long-term success in acquiring additional languages.

*Instrumental Motivational Orientation Factor*

In 2021, Sakarya Akbulut and Altay conducted a study examining motivational differences between Turkish and international students at a state university in Turkey. The research included 20 Turkish students and 16 international students, using an adapted questionnaire alongside mid-term exam results for data collection. Findings revealed high mean scores on the questionnaire for both groups; however, Turkish students demonstrated a lower mean motivational level for learning English compared to their international peers. Between the two groups, the study found a statistically significant difference in altruistic motivation and integrative orientation. However, no significant differences were found regarding attitudes toward English learning, instrumental orientation, or parental encouragement. Importantly, Pearson correlation analysis did not establish a significant correlation between the mid-term exam scores and the mean questionnaire scores of both groups. From a constructivist perspective, motivation is viewed as the internalization of external stimuli, influencing individuals' actions based on personal attributes. The study identified two main categories of motivation: integrative and instrumental. Integrative orientation occurs when learners seek language acquisition for sociocultural reasons, while instrumental orientation refers to motivation driven by external goals. International students displayed higher motivation levels for learning English compared to their Turkish counterparts, primarily due to greater altruistic motivation and a wider range



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of incentives for participating in English courses. They emphasized the communicative value of English, highlighting its role in facilitating global interactions and cultural understanding (Sakarya et al., 2021).

Likewise, Lely Nur Febriyanti, an Indonesian EFL university student, presented a thesis titled "Motivation in Learning English: A Small-Scale Survey" to fulfill the requirements for a Sarjana Pendidikan Degree in English Language Education. The thesis examined the motivation levels for learning English at a private university in Yogyakarta. The research used a quantitative method, utilizing the Language Learning Orientation Scale-Intrinsic Motivation, Extrinsic, and Amotivation subscale (LLOS-IEA). The results indicated that students in the English Education Department demonstrated notably high motivation, with personal and professional motivations ranking highest. In contrast, intrinsic motivation, obligation/avoidance motivation, and amotivation scored lower. The study concluded that students were primarily motivated intrinsically or extrinsically, with amotivation being the lowest due to students' existing rationales for learning English. Motivation plays a crucial role in students' language learning journeys, influencing their dedication and resilience in overcoming challenges. The two relevant types of motivation for second language learning are integrative and instrumental, both of which positively impact learning outcomes when nurtured. Previous research has shown that higher motivation levels correlate with better language mastery, whereas lower motivation tends to lead to reduced achievement. This study provides insights into students' motivation for learning English using a quantitative survey approach (Febriyanti, 2022).

Alimyar conducted a study in 2020 to examine the attitudes and motivations of Afghan students learning English at six Afghan universities. The research uncovered a predominantly positive attitude towards English learning, driven mainly by instrumental, integrative, and intrinsic motivations. Notably, significant differences in attitudes were found based on students' fields of study, academic performance, and levels of language anxiety. Some students reported feeling demotivated to learn English as a Foreign Language (EFL), largely due to concerns about the future relevance of English in Afghanistan if NATO and US forces were to withdraw. The study also delved into Afghan university students' motivations for learning English and their perceptions of English and native English speakers, such as those from American and NATO forces. It found that students' academic disciplines significantly influenced their types of motivation and language anxiety levels. Instrumental motivation—learning English for practical purposes, such as career advancement and financial gain—was identified as the most common form of motivation among the students. Intrinsic motivation, which involves learning for personal satisfaction or interest, was more prominent among senior students, whereas integrative motivation, which is related to the desire to connect with the culture of English speakers, was more commonly observed among junior students. However, first- and second-year students exhibited the highest levels of foreign language anxiety, reflecting the challenges they faced in adjusting to EFL learning.

Interestingly, while no significant gender differences were identified in the types of motivation, male students were found to experience higher levels of anxiety in learning English. Both teachers and parents were perceived as supportive influences in the students' English learning efforts, with over 62% of participants believing that encouragement from teachers could positively impact their peers' motivation to learn English. The study identified several key themes that drove students' motivations for learning English, including career aspirations, skill development, higher salary expectations, personal growth, intercultural communication, and cultural preservation. This suggests that the motivations for learning English among Afghan university students are diverse and often linked to broader sociocultural and economic factors. By understanding these motivations, educators can better tailor their instructional approaches to meet students' needs, thereby fostering a more supportive and effective learning environment for EFL learners in Afghanistan (Alimyar, 2020).

The relationship between trainee teachers' attitudes, learning orientation, drive, and fluency in the Chinese language was the subject of Chew's 2023 research. The research utilized Gardner and Lambert's social psychology model, along with Gardner's psychological model of learning, as its theoretical frameworks. A total of 181 trainee teachers participated in the study, completing a comprehensive questionnaire designed to assess various motivational factors. The findings revealed a notable negative relationship between extrinsic motivation—where learners are driven by external rewards—and proficiency in the Chinese language. In contrast, intrinsic motivation, which reflects a genuine interest in the language, and integrative orientation, focused on social and cultural integration, showed positive correlations with language skills. Additionally, integrative orientation, instrumental orientation (the desire to learn for practical benefits), and a positive attitude toward learning situations emerged as significant predictors of motivational intensity among the trainee teachers.

On the contrary, instrumental motivation is more prevalent in contexts where learners lack a connection to the target language's culture or have limited opportunities for cultural immersion. In Sweden, English instruction occurs from primary through upper-secondary education, focusing on students' exposure to and integration within cultural and social contexts through the English language. Previous research on motivational orientations and language proficiency in Sweden highlights the differing impacts of integrative and instrumental motivations on language skills. The study identified themes such as culture, cultural identification, merit-based incentives, and educational opportunities. High-achieving students expressed a strong interest in American culture, sharing their aspirations to pursue higher education in the United States, influenced by factors such as the lower cost of education compared to Sweden (Solmaz, 2022).

In their 2021 study, Huang, Steinkrauss, and Verspoor explored the emergence of a multilingual motivational system among Chinese learners by comparing those studying English alongside a language other than English (E-LOTE) with those learning English only. The findings revealed that E-LOTE learners demonstrated a greater interest in English and



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developed a more pronounced ideal self-concept related to English proficiency. Over time, the motivation to learn both languages interacted reciprocally, supporting the hypothesis that a multilingual motivational system arises from learners' self-organization and their adaptive responses to the learning context. The study highlights the necessity of examining motivation for learning languages other than English (LOTEs) and points out potential differences in motivational dynamics. Multilingual language acquisition is presented as a complex dynamic system influenced by diverse sociocultural contexts. In the Chinese educational setting, social factors play a crucial role in shaping learners' motivation to acquire multiple languages. Research indicates that a strong ideal multilingual self-concept is linked to positive emotional states in both English and LOTE learning environments. Conversely, negative emotions experienced during English learning have a more significant impact on the ideal multilingual self-concept.

Moreover, within Chinese education, English is often seen as having greater instrumental value, which can undermine learners' motivation to learn other languages, such as Spanish. The study suggests that multilingual motivational systems are continuously evolving through self-organization and adaptive interactions with the learning environment (Huang et al., 2021).

*Synthesis*

The review of relevant literature emphasizes the vital role that research skills play in students' academic development, particularly in areas such as scientific problem-solving, literature review, research design, and data analysis, all of which have significantly shaped the implementation of the current study. Focusing on secondary students, this research investigates the specific challenges they face in developing their English speaking abilities while also exploring their motivations for learning the language. It highlights the critical impact of effective classroom strategies and the pivotal role instructors play in fostering student motivation, enhancing language proficiency, and boosting confidence in speaking English. By integrating recent scholarly publications into the analysis, the researcher has deepened their understanding of the intricate dynamics surrounding language learning motivation and proficiency, which ultimately guides the study's emphasis on these essential factors in the context of English language education.

## III. METHODOLOGY

This section will delineate the essential elements of the paper, including the research design, the targeted population and sample size, the participants involved in the survey, the research instrument, the validation process for the tool, the procedures for data collection, and the statistical techniques that will be used to analyze the acquired data.

*Research Design*

A quantitative research methodology was employed in this study to evaluate the level of speaking difficulties faced by secondary students as well as their motivation for learning Science. This approach is particularly effective as it allows researchers to systematically collect and analyze numerical data, facilitating the investigation of patterns, correlations, and trends within a specific research context. By utilizing descriptive studies, the research aims to portray the subjects in their natural environment, capturing a snapshot of their current attributes without any external interference, which can lead to more authentic results. The quantitative design sought to provide objective insights into the research topic, making it suitable for hypothesis testing, measuring various variables, and drawing statistical inferences about the larger population from which the sample is drawn (Siedlecki, 2020). This methodology not only enables a clear understanding of the extent of speaking difficulties and motivational factors but also supports the identification of relationships between these elements, ultimately contributing to a comprehensive analysis of the challenges and motivations that influence students' learning experiences in Science.

*Population and Sampling Technique*

The researcher utilized purposive sampling technique that include the middle school students from four distinct classes namely Grade 6 which is composed of twenty eight (28) students, Grade 7 with fourteen (14) students, Grade 8 with eight (8) and Grade 9 with twelve (12) students ensuring a diverse mix of both male and female participants, totaling sixty-two (62) students. This approach aimed to capture a comprehensive view of the speaking difficulties and motivational factors affecting students' learning experiences in

Science across different demographic backgrounds. To achieve this, the researcher employed a purposive sampling technique, which allows for the intentional selection of participants who meet specific criteria relevant to the study's objectives. This method was advantageous as it enabled the researcher to focus on students who were most likely to provide valuable insights into the phenomena being studied, particularly those who have experienced challenges in speaking and varying levels of motivation in their Science education. By using purposive sampling, the study delved deeper into the specific experiences and perspectives of these students, thus enhancing the richness of the data collected and ensuring that the findings were relevant and applicable to the broader educational context. Ultimately, this targeted approach helped the researcher develop a significant understanding of the factors influencing secondary students' speaking abilities and motivation in learning Science.

*Respondents of the Study*

Respondents were middle school students who are presently enrolled at a select school in Morocco. The choice of respondents was guided by the researcher's direct engagement with these students, meaning that the researcher personally interacted with them to clarify the study's objectives, obtain their consent, and provide essential information. This direct involvement is expected to encourage a more informed and willing participation from the students. The total sample size for this study consisted of sixty-two student respondents. These students actively provide their responses to the study, likely through methods such as surveys or data collection techniques. The significant size of the sample suggested a relatively large and potentially diverse group, enhancing the study's



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applicability across a broader spectrum and ensuring its statistical validity.

*Research Instrument*

Data for answering its research questions was gathered in this study using two instruments: the Learners' Speaking Difficulty scale and the English Speaking Motivational scale. The research utilized a standardized survey questionnaire adopted from Amoah, S. (2021), with the internal consistency of the questionnaire evaluated using the Statistical Package for the Social Sciences (Version 26.0). The Cronbach's Alpha result (0.787) indicates satisfactory internal reliability of the items. Deciphering responses on this four-point Likert scale aids the respondents in assessing the distribution of speaking difficulty levels among them. It also allowed them to express their speaking motivation by selecting the corresponding response option for each statement. The verbal interpretations and descriptions served to assist respondents in comprehending their speaking difficulty levels and motivation for the specific tasks or skills under evaluation.

A questionnaire that evaluates students' drive to learn science (SMTSL). The six scales that were created are self-efficacy, active learning strategies, science learning value, performance goal, achievement goal, and learning environment stimulation. Stratified random sampling was used to select 1407 junior high school pupils from central Taiwan, representing a range of academic backgrounds, sexes, and accomplishments, to answer the survey. The Cronbach alpha for the complete survey was 0.89.

*Data Gathering Procedure*

To facilitate the execution of this research, a formal letter was submitted to the principal of a select school located in Morocco, which served as the designated site for the study. This formal request sought the necessary authorization to proceed with the research activities, ensuring that the school administration is fully informed and supportive of the research objectives. The primary tool for data collection was a standardized survey questionnaire checklist, designed to gather relevant information on students' speaking difficulties and their motivations for learning Science. Ensuring the confidentiality of respondents will be paramount to the researcher, as it is essential to protect the privacy and integrity of the student-respondents. To achieve this, the researcher implemented measures such as anonymizing responses and securely storing data. An initial briefing session was conducted to provide respondents with clear guidance and instructions on how to complete the survey, explaining the purpose of the research and addressing any concerns or questions they may have. This session aimed to foster a comfortable environment that encourages honest and thoughtful responses. Following the data collection process, a thorough analysis and interpretation of the gathered data were carried out, employing appropriate statistical methods to derive meaningful insights.

The researcher then formulates a strategic intervention plan based on the study's findings, outlining recommendations and strategies that could be implemented to enhance students' speaking proficiency and motivation in learning Science. This comprehensive approach ensured that the research not only addresses its objectives but also contributes valuable insights to the educational community at the said school.

Statistical Treatment

The data collected in this study underwent analysis using the following statistical methodologies:

Frequency and Percentage were used to ascertain the demographic profile of the respondents.

Mean and Standard Deviation were used to calculate the level of speaking difficulties among the respondents.

The respondents' motivation for speaking was assessed using mean and standard deviation.

To see if the respondents' perceived speaking challenges varied significantly depending on their profile, a one-way analysis of variance (ANOVA) was conducted.

One-way Analysis of Variance (ANOVA) was used to determine if there is a significant difference in the level of students' motivation when grouped according to profile.

Pearson's correlation coefficient (Pearson r) was employed to investigate if there is a significant relationship between the level of speaking difficulties and the speaking motivation of the respondents.

*Ethical Considerations*

In conducting the study, participants were fully informed about its purpose, scope, and procedures. Written consent was secured, ensuring that participation was voluntary and that individuals could withdraw at any time without consequence. Confidentiality was upheld by anonymizing data and securely handling personal information to protect identities. All data were coded or de-identified to prevent recognition in reports. The study avoided causing emotional, psychological, or academic harm, particularly considering the sensitivity of speaking difficulties. To prevent embarrassment, researchers approached these challenges with care and empathy. A safe and supportive environment was provided during all stages of data collection. Transparency and honesty were maintained throughout the research process, avoiding any data manipulation or misrepresentation. Participants were also informed of how the findings would be used and any potential benefits they might receive. In the end, students' rights were respected, with special consideration given to those facing communication difficulties to ensure fairness and dignity in all aspects of the study.

## IV. Presentation, Analysis, and Interpretation of Data

Problem number 1. What is the demographic profile of the respondents in terms of Sex, and Grade Level?

**Table 1:**
*Demographic Profile of the Respondents in Terms of Sex*

| | Frequency | Percent |
|---|---|---|
| Male | 28 | 45.2 |
| Female | 34 | 54.8 |
| Total | 62 | 100.0 |

The demographic profile in terms of sex reveals that there are slightly more female respondents (54.8%) compared to male



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respondents (45.2%). This suggests a balanced representation between genders, with a marginally higher number of females participating in the study. The small majority of female respondents (54.8%) compared to male respondents (45.2%) indicates a fairly balanced gender representation in the study. This balance supports the inclusivity of both male and female perspectives in the findings. Nonetheless, the slightly greater number of female participants could have a subtle impact on overall patterns of motivation and engagement, particularly if gender plays a role in influencing learning behaviors and attitudes.This demographic distribution could have implications for understanding if gender-based motivational differences or speaking difficulties influence the findings. Given that both sexes are nearly equally represented, any gender-specific differences in motivation or speaking difficulties could be explored further in relation to the data (Budjalemba & Lisyani, 2020).

**Table 2:**
*Demographic Profile of the Respondents in Terms of Grade Level*

| | Frequency | Percent |
|---|---|---|
| Grade 6 | 28 | 45.2 |
| Grade 7 | 14 | 22.6 |
| Grade 8 | 8 | 12.9 |
| Grade 9 | 12 | 19.4 |
| Total | 62 | 100.0 |

The respondents' grade level distribution indicates a diverse sample, with the highest concentration in Grade 6 (45.2%), followed by Grade 7 (22.6%), Grade 9 (19.4%), and the lowest in Grade 8 (12.9%). This distribution suggests that a larger proportion of younger learners participated in the study. Since younger students are generally in the early stages of English language acquisition, they may encounter more challenges in oral communication tasks, such as vocabulary usage, pronunciation, and speaking fluency. Consequently, this age group may also demonstrate different levels of motivation compared to their older peers.

The predominance of younger respondents has significant implications for interpreting the results of the study on speaking difficulties and motivation. Younger learners may require more structured and supportive environments to build confidence and competence in using English. Their motivational patterns are also likely influenced by extrinsic factors such as teacher approval, rewards, and classroom atmosphere. In contrast, older students, with greater language exposure and experience, may rely more on intrinsic motivation and goal-setting strategies. Thus, language instruction and intervention strategies should be developmentally appropriate targeting foundational support for younger learners and promoting autonomy and self-regulated learning among older students. Failing to consider these developmental differences could lead to generalized conclusions that overlook the unique needs and capabilities of each grade level.

This was supported by Alamer (2021) which emphasizes that younger learners are still developing the cognitive and emotional readiness needed for effective language acquisition, which can affect their oral proficiency and classroom participation. Derakhshan and Zhaleh (2022) found that as students advance through school levels, their exposure to communicative contexts and academic tasks increases, often leading to improved language skills and greater confidence. Additionally, Lamb and Arisandy (2021) argue that motivation is dynamic and closely tied to a learner's age and grade level. Their research suggests that younger students often depend on external motivation, while older students show stronger internal drivers linked to identity, competence, and long-term goals.

Problem number 2. What is the assessment of the respondents in speaking difficulty in terms of Linguistic Factor, Psychological Factors, and Learning Environment Factor?

**Table 3:**

*Assessment of the Respondents in Speaking Difficulty in Terms of Linguistic Factor*

| | Mean | Std. Deviation | Verbal Interpretation |
|---|---|---|---|
| 1. I find it difficult to speak English to foreign students in my class. | 3.50 | 0.50 | Strongly Agree |
| 2. I find it difficult to speak English directly without much thinking of native language whenever I speak | 3.52 | 0.50 | Strongly Agree |
| 3. I find it difficult to speak English naturally without switching to my native language | 3.48 | 0.50 | Agree |
| 4. It's difficult for me to be sure of myself when speaking English. | 3.58 | 0.50 | Strongly Agree |
| 5. I find it difficult whenever I speak English without hesitation | 3.40 | 0.49 | Agree |
| 6. I find it difficult to speak English without making grammatical mistakes | 3.55 | 0.50 | Strongly Agree |
| 7. I find it a difficult task in making English tenses correctly | 3.71 | 0.46 | Strongly Agree |
| 8. I find it difficult believing that I am better than the other students at speaking English. | 3.60 | 0.49 | Strongly Agree |
| 9. I always find it difficult to say it directly without phrasing it in Moroccan, then translating it into English. | 3.58 | 0.50 | Strongly Agree |
| 10. I find it difficult to improve my English-speaking proficiency due to fear | 3.50 | 0.50 | Strongly Agree |
| **Linguistic Factors** | **3.54** | **0.21** | **Strongly Agree** |

**Legend: 4 3.50 - 4.00 Strongly Agree 3 2.50 - 3.49 Agree**
**2 1.50 - 2.49 Disagree 1 1.00 - 1.49 Strongly Disagree**

The analysis of linguistic factors reveals that many learners perceive speaking English as a major challenge, particularly when it comes to speaking fluently without hesitation and avoiding grammatical mistakes. These difficulties are not just technical but are closely tied to cognitive and emotional barriers. Learners often face the mental strain of translating their ideas from their native language into English, which disrupts fluency and undermines their confidence. This ongoing self-doubt about their language ability contributes to a reduced willingness to speak and engage in classroom discussions.

At the core of this issue is the concept of linguistic self-efficacy—students' belief in their capacity to communicate effectively in English. When students are unsure about their grammar or pronunciation, they tend to hesitate, limit their verbal participation, or avoid speaking altogether. This behavior supports the socio cognitive perspective, which emphasizes that language learning involves managing both linguistic skills and psychological challenges (Zhaleh & Derakhshan, 2022). Fear of negative evaluation and performance anxiety can significantly interrupt the natural flow



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of communication, making the speaking process more stressful and less productive.

These insights have meaningful implications for teaching practice. Traditional approaches that focus heavily on grammatical accuracy may unintentionally increase learners' fear of making mistakes. Instead, educators should create supportive, low-anxiety environments that promote spontaneous language use and communicative competence. Strategies such as scaffolded peer interactions, role-playing, guided dialogues, and fluency-focused tasks have been shown to reduce anxiety and improve learner confidence. Recent studies affirm this direction—Almurashi and Alqahtani (2023) advocate for learner-centered, task-based speaking activities to build fluency, while Zhaleh and Derakhshan (2022) stress the importance of addressing emotional factors in second language communication.

**Table 4:**
*Assessment of the Respondents in Speaking Difficulty in Terms of Psychological Factors*

| | Mean | Std. Deviation | Verbal Interpretation |
|---|---|---|---|
| 1. I find it difficult to pronounce the English language fluently | 3.50 | 0.50 | Strongly Agree |
| 2. I find it difficult when my teacher uses Moroccan while explaining Science lessons | 3.61 | 0.49 | Strongly Agree |
| 3. I find it difficult when my teacher uses English while explaining Science lessons | 3.56 | 0.50 | Strongly Agree |
| 4. I find it difficult to speak a lot of English during Science lessons | 3.63 | 0.49 | Strongly Agree |
| 5. I find it difficult to speak a lot of English outside the classroom. | 3.56 | 0.50 | Strongly Agree |
| 6. I do not find it difficult to speak a lot of English outside the classroom | 3.45 | 0.50 | Agree |
| 7. I find it difficult when I have to speak without preparation during lessons | 3.71 | 0.46 | Strongly Agree |
| 8. I find it difficult to answer questions in English. | 3.61 | 0.49 | Strongly Agree |
| 9. I find it difficult trying to explain important issues to friends in English. | 3.52 | 0.50 | Strongly Agree |
| 10. I find it difficult for speaking English to my teacher during Science lessons | 3.58 | 0.50 | Strongly Agree |
| **Psychological Factors** | **3.57** | **0.21** | **Strongly Agree** |

**Legend: 4 3.50 - 4.00 Strongly Agree 3 2.50 - 3.49 Agree**
**2 1.50 - 2.49 Disagree 1 1.00 - 1.49 Strongly Disagree**

The analysis of psychological factors reveals that respondents strongly agree that speaking English in various academic contexts such as during Science lessons or when responding to classroom questions poses considerable difficulty. This consistent response pattern suggests that the challenge is not only linguistic but also rooted in affective experiences. A common concern among learners is the inability to speak fluently without prior preparation, further reinforcing the presence of internal barriers that hinder spontaneous communication. These findings point to elevated levels of anxiety, stress, or fear of negative evaluation when speaking English in public or academic settings. Interpreting these results reveals that psychological barriers, such as speaking anxiety and low self-confidence, significantly impact students' oral language performance. The difficulty in maintaining fluency without preparation likely reflects low communicative self-efficacy and heightened performance pressure. This aligns with sociocognitive and affective perspectives on language learning, which emphasize that emotional states like fear and embarrassment can interfere with learners' willingness to communicate and reduce their engagement in language-rich tasks. Thus, addressing these internal affective factors is essential in helping students overcome communication apprehension and build resilience in language use.

The implications for teaching are clear: language instruction must go beyond skill development and incorporate psychological support to reduce learners' anxiety. Creating emotionally safe classrooms through activities such as cooperative

**Table 5:**
*Assessment of the Respondents in Speaking Difficulty in Terms of Learning Environment Factor*

| | Mean | Std. Deviation | Verbal Interpretation |
|---|---|---|---|
| 1. I find it difficult to take English oral exams. | 3.45 | 0.50 | Agree |
| 2. I find it difficult to pass my oral exams. | 3.60 | 0.49 | Strongly Agree |
| 3. I find it difficult to even remember the words or phrases I know from the English classroom. | 3.61 | 0.49 | Strongly Agree |
| 4. I find it difficult debating in English in the presence of the other students during Science lessons. | 3.47 | 0.50 | Agree |
| 5. I find it difficult speaking to native English speakers. | 3.65 | 0.48 | Strongly Agree |
| 6. I find it difficult to understand every word the teacher says in the Science classroom. | 3.68 | 0.47 | Strongly Agree |
| 7. I find it difficult to voluntarily answer questions during Science lessons | 3.48 | 0.50 | Agree |
| 8. I find it difficult to narrate or describe events orderly in English | 3.58 | 0.50 | Strongly Agree |
| 9. I find it difficult to present my academic research in English during oral presentations | 3.52 | 0.50 | Strongly Agree |
| 10. I find it difficult to defend myself effortlessly in English when arguing with my friends | 3.50 | 0.50 | Strongly Agree |
| **Learning Environment Factors** | **3.55** | **0.21** | **Strongly Agree** |

**Legend: 4 3.50 - 4.00 Strongly Agree 3 2.50 - 3.49 Agree**
**2 1.50 - 2.49 Disagree 1 1.00 - 1.49 Strongly Disagree**

learning, structured speaking tasks, and anxiety-reduction techniques can improve learners' confidence and willingness to participate. Recent studies reinforce this view. Derakhshan et al. (2022) highlighted the influence of emotional intelligence and teacher support on students' speaking confidence and motivation. Similarly, Alamer and Lee (2021) emphasized that fostering a supportive, autonomy-driven environment significantly reduces language anxiety and enhances speaking performance among EFL learners. The analysis of learning environment factors reveals that a majority of respondents strongly agree their classroom context significantly contributes to their English-speaking difficulties. Notable concerns include challenges with oral exams, difficulty understanding their teacher during Science lessons, and anxiety when speaking with native English speakers. These findings highlight specific environmental stressors that hinder oral communication. They suggest that beyond individual skill deficits, contextual elements within the learning environment—such as instructional clarity and interactional dynamics—play a pivotal role in shaping students' speaking experiences.

Interpreting these results suggests that a rigid or unsupportive classroom environment may amplify students' language anxiety and reduce their willingness to speak. When students perceive



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their learning environment as high-stakes or lacking in emotional safety, they are more likely to experience discomfort during speaking tasks, particularly in evaluative or formal settings. These concerns point to a gap in creating learner-centered environments that promote inclusion, interaction, and psychological safety. The importance of environmental factors aligns with Vygotsky's sociocultural theory, which emphasizes the role of social interaction and contextual scaffolding in language development (Zhao & Wang, 2021).

The implication is that educational institutions must prioritize creating interactive, supportive classrooms where both teachers and peers actively facilitate meaningful communication. Teachers should adopt strategies such as simplified questioning, group work, and culturally responsive instruction to reduce pressure and increase student engagement. Peer support systems, cooperative learning tasks, and clearer teacher-student communication are especially vital in Science classes where both content and language complexity intersect. As recent research confirms, classroom environments that are emotionally supportive and interaction-rich enhance learners' language performance (Pishghadam et al., 2022) and build speaking confidence (Al-Hoorie & MacIntyre, 2023).

**Table 6:**
*Composite table on the Assessment of the Respondents in Speaking Difficulty*

| | Mean | Std. Deviation | Verbal Interpretation |
|---|---|---|---|
| Linguistic Factors | 3.54 | 0.21 | Strongly Agree |
| Psychological Factors | 3.57 | 0.21 | Strongly Agree |
| Learning Environment Factors | 3.55 | 0.21 | Strongly Agree |
| **Speaking Difficulty Scale** | **3.56** | **0.16** | **Strongly Agree** |

Legend: 4 3.50 - 4.00 Strongly Agree 3 2.50 - 3.49 Agree
2 1.50 - 2.49 Disagree 1 1.00 - 1.49 Strongly Disagree

The composite data table reveals that respondents consistently and strongly agree that linguistic, psychological, and environmental factors contribute to their difficulties in speaking English. The overall mean score of 3.56 reflects a high level of agreement, indicating that these challenges are not isolated but interrelated. This convergence of multiple factors suggests that speaking difficulties are experienced holistically by the students, not simply as linguistic deficiencies but as a constellation of challenges embedded within their cognitive, emotional, and classroom contexts. Interpreting these findings reveals the multifaceted nature of oral communication struggles in English. The interaction between limited vocabulary or grammatical confidence (linguistic), anxiety and fear of negative evaluation (psychological), and unsupportive or passive classroom structures (environmental) compounds the difficulty students experience when attempting to speak. This supports the idea that no single factor can be addressed in isolation. As Vygotskian theory underscores, language development occurs through the interaction of internal and external variables, where learning is socially mediated and context-dependent (Zhao & Wang, 2021). These results affirm that speaking proficiency must be viewed through an integrative lens that accounts for the interconnectedness of student experiences. The implication is clear that addressing English-speaking difficulties requires a comprehensive, multi-layered instructional approach. Schools and educators must simultaneously target language development, build psychological resilience, and foster emotionally supportive, interactive classroom environments. As recent studies emphasize, an integrated strategy that attends to these domains improves students' speaking confidence and engagement. For instance, Derakhshan and Zhaleh (2022) argue for the inclusion of emotional and environmental scaffolds in second language teaching, while Alamer and Lee (2021) highlight the role of motivational and contextual support in shaping learners' willingness to communicate. Together, these findings point to a shift in language teaching from single skill exercises to comprehensive, student-centered approaches.

Problem number 3. What is the level of students' motivation in learning Science in terms of self-efficacy, active learning strategies, science learning value, performance goal, achievement goal, and learning environment stimulation?

**Table 7:**
*Level of Students' Motivation in Learning Science in Terms of Self-Efficacy*

| | Mean | Std. Deviation | Verbal Interpretation |
|---|---|---|---|
| 1. I believe I can succeed in learning science. | 3.60 | 0.49 | Highly Motivated |
| 2. I am confident in understanding science concepts taught in class. | 3.61 | 0.49 | Highly Motivated |
| 3. I can apply the knowledge I learn in science to new situations. | 3.44 | 0.50 | Motivated |
| 4. I feel that I can do well on science tests. | 3.60 | 0.49 | Highly Motivated |
| 5. I am capable of solving science-related problems on my own. | 3.53 | 0.50 | Highly Motivated |
| 6. Even if science work is challenging, I believe I can learn it. | 3.68 | 0.47 | Highly Motivated |
| **Self- Efficacy** | **3.58** | **0.26** | **Highly Motivated** |

Legend: 4 3.50 - 4.00 Highly Motivated 3 2.50 - 3.49 Motivated
2 1.50 - 2.49 Fairly Motivated 1 1.00 - 1.49 Not Motivated

The analysis of motivational factors reveals that respondents exhibit a high level of self-efficacy in learning science. Students strongly agree with statements indicating confidence in their ability to understand science concepts, succeed in the subject, and apply their knowledge to new contexts. This consistent pattern of agreement suggests a positive motivational profile, particularly in the domain of cognitive confidence and academic self-belief. The data reflects a notable degree of internal motivation, as students perceive themselves as competent and capable problem-solvers in science learning environments. This finding highlights the critical role of science self-efficacy, a key component of student motivation that shapes their engagement, persistence, and performance. Learners who believe in their ability to understand and apply scientific knowledge are more likely to participate actively, embrace challenges, and independently seek solutions.

According to Bandura's theory of self-efficacy, such beliefs influence not only learning outcomes but also emotional responses to academic tasks. Recent research affirms this: Al-Hoorie and McIntyre (2023) argue that self-efficacy is a powerful predictor of academic success and learner resilience, especially in STEM education. Therefore, the high motivation observed in this study signals a promising foundation for promoting deeper learning and long-term interest in science. The implication for educators and curriculum designers is that science instruction should continue to nurture students' self-



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efficacy through meaningful, achievable tasks that reinforce success and application. Creating opportunities for inquiry-based learning, real-world problem-solving, and positive feedback can further strengthen students' confidence and motivation. Moreover, recognizing and leveraging students' belief in their capabilities may lead to improved performance and sustained engagement. As supported by recent studies, enhancing self-efficacy through supportive instructional strategies significantly contributes to motivation, academic growth, and the development of lifelong science learners (Alhadabi & Karpinski, 2022; Sari & Rahmat, 2021).

**Table 8:**
*Level of Students' Motivation in Learning Science in Terms of Active Learning Strategies*

| | Mean | Std. Deviation | Verbal Interpretation |
|---|---|---|---|
| 1. When I do not understand a science concept, I try to find more information. | 3.60 | 0.49 | Highly Motivated |
| 2. I take the initiative to discuss science topics with my classmates. | 3.56 | 0.50 | Highly Motivated |
| 3. I ask my teacher questions when I do not understand something in science. | 3.56 | 0.50 | Highly Motivated |
| 4. I seek additional materials to help me learn science. | 3.58 | 0.50 | Highly Motivated |
| 5. I try different methods to solve science problems. | 3.48 | 0.50 | Motivated |
| 6. I explore science topics beyond what is taught in class. | 3.56 | 0.50 | Highly Motivated |
| **Active Learning Strategies** | **3.56** | **0.24** | **Highly Motivated** |

Legend: 4 3.50 - 4.00 Highly Motivated 3 2.50 - 3.49 Motivated
2 1.50 - 2.49 Fairly Motivated 1 1.00 - 1.49 Not Motivated

The analysis of motivation related to active learning strategies shows that students exhibit a strong willingness to engage with science content beyond the classroom. Respondents strongly agree that they actively seek out additional information, ask questions, and participate in discussions with peers about science topics. These responses indicate that learners are not passively receiving information but are taking ownership of their learning process through inquiry and collaboration. Such behaviors reflect a high level of cognitive and behavioral engagement, both of which are key indicators of intrinsic motivation. This high engagement points to the presence of self-regulated learning behaviors, where students take initiative to deepen their understanding by actively constructing knowledge rather than relying solely on teacher instruction. From a motivational standpoint, this suggests that students are not only interested in science but also see value in the process of learning itself. This aligns with research by Sierens et al. (2022), who emphasize that when students perceive autonomy and relevance in learning activities, they are more likely to engage in self-initiated and meaningful learning behaviors. Thus, the students' active involvement demonstrates a positive attitude that supports deeper conceptual understanding, higher-order thinking, and improved academic outcomes. The implications shows that educators may continue to foster this proactive mindset by designing classroom environments that support inquiry, peer collaboration, and student-led exploration. Activities such as project-based learning, science dialogues, and group investigations can reinforce student autonomy and sustain motivation. Furthermore, when students are encouraged to take initiative and interact with content critically, they are more likely to retain information and apply it in new contexts. Supporting this, Derakhshan and Zhaleh (2022) argue that student-driven engagement, when supported by teachers, significantly enhances academic resilience and achievement in science and language education alike. Promoting active learning, therefore, is not only a matter of strategy but a foundation for lifelong scientific literacy.

**Table 9:**
*Level of Students' Motivation in Learning Science in Terms of Science Learning Value*

| | Mean | Std. Deviation | Verbal Interpretation |
|---|---|---|---|
| 1. Learning science is important for my future. | 3.61 | 0.49 | Highly Motivated |
| 2. I think science is useful in daily life. | 3.74 | 0.44 | Highly Motivated |
| 3. I enjoy learning new things in science. | 3.61 | 0.49 | Highly Motivated |
| 4. I believe understanding science will help me in my career. | 3.61 | 0.49 | Highly Motivated |
| 5. Science helps me think critically and solve problems. | 3.63 | 0.49 | Highly Motivated |
| 6. Learning science is important for my future. | 3.45 | 0.50 | Motivated |
| **Science Learning Value** | **3.61** | **0.23** | **Highly Motivated** |

Legend: 4 3.50 - 4.00 Highly Motivated 3 2.50 - 3.49 Motivated
2 1.50 - 2.49 Fairly Motivated 1 1.00 - 1.49 Not Motivated

The analysis of motivation related to the perceived value of science reveals that respondents strongly agree on the importance of learning science for their personal and professional futures. Most students acknowledge that science helps them develop critical thinking and problem-solving skills, and they view scientific knowledge as applicable to real-life situations and future careers. This consistent agreement demonstrates that students not only understand the subject matter but also appreciate its long-term relevance and practical benefits.

Interpreting these findings suggests that students' motivation is strongly anchored in instrumental and utility value—the belief that science learning is valuable because it leads to important outcomes such as employability, life skills, and intellectual growth. According to expectancy-value theory, when learners perceive the content as useful and aligned with their personal goals, they are more likely to invest effort and persist through academic challenges. This perspective is supported by research from Alamer (2021), who emphasized that perceived task value significantly enhances student engagement and motivation in content-rich subjects like science. Therefore, students who perceive science as meaningful are more likely to demonstrate consistent effort, curiosity, and perseverance in learning.

The implication for educators is that science instruction should continue to emphasize real-world applications, career connections, and critical thinking development to sustain and deepen student motivation. Curriculum designers and teachers can integrate activities that highlight how scientific concepts relate to everyday life, societal issues, and future professions. This relevance-based approach not only promotes engagement but also builds intrinsic and extrinsic motivation. Supporting



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this, studies by Hosseini et al. (2023) and Van Der Veen & Van Driel (2022) suggest that when students see science as valuable and connected to their identity and future goals, they are more resilient and proactive in their learning. By reinforcing the perceived value of science, educators can cultivate motivated learners equipped to thrive in both academic and real-world contexts.

**Table 10:**
*Level of Students' Motivation in Learning Science in Terms of Performance Goal*

| | Mean | Std. Deviation | Verbal Interpretation |
|---|---|---|---|
| 1. I want to get good grades in science. | 3.58 | 0.50 | Highly Motivated |
| 2. I work hard in science to get praise from my teacher or parents. | 3.56 | 0.50 | Highly Motivated |
| 3. I compare my science performance with my classmates. | 3.53 | 0.50 | Highly Motivated |
| 4. I feel successful when I perform better than others in science. | 3.53 | 0.50 | Highly Motivated |
| **Performance Goal** | **3.55** | **0.31** | **Highly Motivated** |

Legend: 4 3.50 - 4.00 Highly Motivated 3 2.50 - 3.49 Motivated
2 1.50 - 2.49 Fairly Motivated 1 1.00 - 1.49 Not Motivated

The analysis of students' motivation reveals that many are strongly driven by performance goals when learning science. Most respondents shared that getting good grades and performing better than their classmates are key motivators in their learning journey. This shows a clear competitive streak among students, where success is often measured by external validation from teachers and parents rather than a genuine interest in the subject itself. Looking deeper, this type of motivation can be both beneficial and challenging. On one hand, it can inspire students to work hard and aim high academically. On the other, it can also create added stress and pressure, which may negatively affect their learning experience. This pattern reflects what goal orientation theory explains—that focusing too much on outperforming others can lead students to value results over true understanding, making them more likely to experience fear of failure (Khasawneh, 2021). Over time, this can also discourage creativity and risk-taking, as students might avoid tasks that seem difficult or could harm their grades.

For educators, this highlights the importance of striking a balance between encouraging achievement and cultivating a love for learning. Teachers can help by designing lessons that promote curiosity, collaboration, and self-improvement alongside academic performance. Strategies like giving constructive feedback, recognizing individual progress, and offering activities that prioritize mastery over competition can ease unnecessary pressure. Recent studies back this up: Alamer and Lee (2021) found that classrooms that support student autonomy encourage healthier motivation, while García-García et al. (2023) noted that too much focus on performance can lead to anxiety and disengagement. By creating a supportive environment that values both effort and understanding, teachers can help students excel academically without sacrificing their well-being.

The analysis of motivational factors shows that students display a strong sense of achievement motivation. They are eager to tackle challenging science problems, dive into complex concepts, and focus on truly understanding the subject rather than just aiming for high grades. This suggests that their drive goes beyond external rewards or recognition and is rooted in a genuine commitment to learning and mastering science.

**Table 11:**
*Level of Students' Motivation in Learning Science in Terms of Achievement Goal*

| | Mean | Std. Deviation | Verbal Interpretation |
|---|---|---|---|
| 1. I like challenging science problems that make me think deeply. | 3.50 | 0.50 | Highly Motivated |
| 2. I feel satisfied when I understand difficult science concepts. | 3.74 | 0.44 | Highly Motivated |
| 3. I enjoy learning science, even if it is difficult. | 3.50 | 0.50 | Highly Motivated |
| 4. I focus on truly understanding science, not just getting good grades. | 3.56 | 0.50 | Highly Motivated |
| **Achievement Goal** | **3.58** | **0.30** | **Highly Motivated** |

Legend: 4 3.50 - 4.00 Highly Motivated 3 2.50 - 3.49 Motivated
2 1.50 - 2.49 Fairly Motivated 1 1.00 - 1.49 Not Motivated

Looking at these findings more closely, it's clear that students possess a high level of intrinsic motivation and a mastery-oriented mindset. This attitude, which values growth and deep understanding, is linked to stronger learning habits, perseverance during difficult tasks, and better long-term retention. Self-determination theory highlights that students who are intrinsically motivated are more likely to explore ideas in depth, develop problem-solving skills, and maintain positive attitudes toward learning (Deci & Ryan, 2021). This mindset not only strengthens conceptual understanding but also builds resilience, helping students handle complex challenges with confidence. For educators, the takeaway is to keep cultivating this mastery-driven approach. Classrooms should be designed to inspire curiosity, creativity, and self-reflection rather than focusing solely on grades.

Strategies such as inquiry-based projects, real-world problem-solving tasks, and self-assessment opportunities can help maintain students' intrinsic motivation.

**Table 12:**
*Level of Students' Motivation in Learning Science in Terms of Learning Environment Stimulation*

| | Mean | Std. Deviation | Verbal Interpretation |
|---|---|---|---|
| 1. My science teacher encourages me to ask questions. | 3.79 | 0.41 | Highly Motivated |
| 2. My science teacher creates an interesting and engaging learning environment. | 3.56 | 0.50 | Highly Motivated |
| 3. I feel motivated to learn science because of how my teacher presents lessons. | 3.55 | 0.50 | Highly Motivated |
| 4. My classroom provides hands-on activities that make science exciting. | 3.44 | 0.50 | Highly Motivated |
| 5. My classmates support and encourage me in learning science. | 3.56 | 0.50 | Highly Motivated |
| **Learning Environment Stimulation** | **3.58** | **0.29** | **Highly Motivated** |

Legend: 4 3.50 - 4.00 Highly Motivated 3 2.50 - 3.49 Motivated
2 1.50 - 2.49 Fairly Motivated 1 1.00 - 1.49 Not Motivated

Recent studies support this: Almusharraf and Bailey (2022) found that classrooms centered on mastery improve engagement and performance, while Khajavy et al. (2023) noted that intrinsic motivation is a strong predictor of persistence in STEM learning. By nurturing this type of motivation, teachers can help students become independent, confident learners who continue to thrive in science both inside and outside the classroom.

The analysis of motivational factors shows that students



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strongly believe their learning environment plays a big role in how motivated they feel to learn science. Many shared that having teachers who welcome questions and create lively, engaging lessons makes a huge difference in how they approach the subject. They also value having supportive classmates who make the classroom feel like a safe and encouraging space. These factors give students a sense of belonging, which they see as essential for feeling motivated and confident enough to participate in class. Looking at these findings more closely, it's clear that a supportive and interactive classroom environment is a powerful driver of motivation. When students feel encouraged by their teachers and peers, they are more likely to take risks, join discussions, and push through challenges. This reflects what self-determination theory suggests—that positive relationships and a sense of connection foster stronger motivation and engagement (Ryan & Deci, 2021). Similarly, Zainuddin et al. (2022) found that classrooms built on collaboration and emotional support help students gain confidence and stay interested in STEM subjects over time. For educators, the message is simple but important: creating a positive and engaging learning environment should be a top priority. This can be done by keeping communication open, using interactive teaching strategies, and building a culture where students feel genuinely supported by both teachers and classmates. Recent studies back this up—García-García et al. (2023) found that teacher encouragement and peer support significantly boost student motivation, while Alrabai (2022) showed that a positive classroom climate reduces anxiety and increases participation in science and other subjects. When classrooms are intentionally designed to be welcoming and collaborative, students are more likely to feel motivated, engaged, and ready to excel.

**Table 13:**
*Composite Table on the Level of Students' Motivation in Learning Science*

| | Mean | Std. Deviation | Verbal Interpretation |
|---|---|---|---|
| Self-Efficacy | 3.58 | 0.26 | Highly Motivated |
| Active Learning Strategies | 3.56 | 0.24 | Highly Motivated |
| Science Learning Value | 3.61 | 0.23 | Highly Motivated |
| Performance Goal | 3.55 | 0.31 | Highly Motivated |
| Achievement Goal | 3.58 | 0.30 | Highly Motivated |
| Learning Environment Stimulation | 3.58 | 0.29 | Highly Motivated |
| **Students' Motivation in Learning Science** | **3.58** | **0.11** | **Highly Motivated** |

Legend: 4 3.50 - 4.00 Highly Motivated 3 2.50 - 3.49 Motivated
2 1.50 - 2.49 Fairly Motivated 1 1.00 - 1.49 Not Motivated

The composite results reveal that students are generally highly motivated to learn science, with the strongest ratings observed in self-efficacy, active learning strategies, and the stimulation provided by their learning environment. This consistent pattern across multiple motivational factors shows that students not only believe in their ability to succeed but also actively take responsibility for their learning. Additionally, they thrive in positive classroom settings where encouragement and support from teachers and peers further strengthen their motivation to excel. These findings highlight that students' motivation is influenced by a combination of personal attitudes and the learning environment around them. Confidence in their abilities (self-efficacy) and active participation make them more prepared to overcome challenges, while a supportive classroom atmosphere fosters curiosity, collaboration, and persistence. This is consistent with the principles of self-determination theory, which emphasize how autonomy, competence, and meaningful relationships drive motivation (Ryan & Deci, 2021). Similarly, Sierens et al. (2022) found that students' motivation and performance improve significantly when their needs for confidence and engagement are met in a positive learning environment. For educators, these findings underscore the importance of designing science instruction that nurtures students' confidence, promotes active engagement, and ensures a stimulating classroom environment. Teaching strategies such as inquiry-based learning, collaborative group work, and regular constructive feedback can help deepen student involvement and reinforce self-efficacy. Recent research supports this approach: Almusharraf and Bailey (2022) reported that mastery-oriented teaching combined with dynamic classroom settings promotes academic persistence, while Khajavy et al. (2023) identified self-efficacy and active learning as key predictors of success in STEM education. By addressing both individual and environmental factors, teachers can sustain students' motivation and support their success in science.

Problem number 4. Is there a significant difference in the assessment of the respondents in speaking difficulty when grouped according to profile?

**Table 14:**
*Test of Significant Difference on the Assessment of the Respondents in Speaking Difficulty When Grouped According to Profile*

| | t | df | Sig. (2-tailed) | Decision | Remarks |
|---|---|---|---|---|---|
| Sex - Speaking Difficulty Scale | -30.439 | 61 | 0.000 | Reject | Significant |
| Grade Level - Speaking Difficulty Scale | -9.154 | 61 | 0.000 | Reject | Significant |

The analysis indicates a significant difference in how students assess speaking difficulties when grouped by sex and grade level. Male and female learners, as well as students from different grade levels, perceive and experience speaking challenges in distinct ways. These differences may stem from varying levels of language exposure, confidence, and developmental maturity, suggesting that speaking challenges are not universal but influenced by gender and age-related factors. Interpreting these findings highlights the need for tailored interventions that account for these differences. Students at different stages of academic development may require varying levels of scaffolding and support, while gender-specific strategies can help address unique confidence and participation issues.

Age and gender both influence a student's motivation and communication style, which in turn can have an impact on their linguistic performance, according to Oga-Baldwin and Nakata (2021). Similarly, Derakhshan et al. (2022) found that gender-based differences in speaking anxiety and self-efficacy can affect students' oral communication skills and engagement. The implication for educators is clear that strategies to improve speaking skills must be both gender-sensitive and age-



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appropriate. Differentiated instruction, such as small-group discussions, targeted feedback, and scaffolded oral activities, can help address the specific needs of diverse learners. García-García et al. (2023) noted that differentiated learning approaches significantly improve language proficiency and confidence, while Khajavy et al. (2023) found that tailoring speaking activities to developmental levels reduces anxiety and enhances oral performance. By recognizing and addressing these differences, teachers can create inclusive language-learning environments that support all students in overcoming speaking challenges.

Problem number 5. Is there a significant difference in the level of students' motivation when grouped according to profile?

**Table 15:**
*Test of Significant Difference on the Level of Students' Motivation When Grouped According to Profile*

| | t | df | Sig. (2-tailed) | Decision | Remarks |
|---|---|---|---|---|---|
| Sex - Students Motivation in Learning Science | -30.422 | 61 | 0.000 | Reject | Significant |
| Grade Level - Students Motivation in Learning Science | -10.202 | 61 | 0.000 | Reject | Significant |

The analysis reveals a significant difference in students' motivation levels when grouped by sex and grade level. This indicates that male and female learners, as well as students from different grade levels, display varying degrees of motivation toward learning science. These differences may be linked to diverse developmental stages, learning preferences, and social expectations, suggesting that motivation is not uniform across all groups but shaped by both gender and academic maturity. Interpreting these findings highlights the importance of recognizing and addressing these motivational differences. Learners at different grade levels may require varied forms of encouragement, while male and female students might respond differently to instructional approaches. Oga-Baldwin and Nakata (2021) noted that gender and age play a significant role in shaping students' motivation, engagement, and persistence in academic tasks. Similarly, Almusharraf and Bailey (2022) emphasized that understanding these variations allows educators to create motivational strategies that resonate with the unique characteristics of each group, leading to better student outcomes. This implied that motivational strategies must be both gender-sensitive and age-appropriate. Techniques such as personalized goal-setting, differentiated classroom activities, and varied forms of recognition can help address the diverse motivational needs of students. Recent studies support this approach; García-García et al. (2023) found that differentiated strategies based on student profiles significantly improved motivation and engagement, while Khajavy et al. (2023) highlighted that tailoring activities to students' developmental stages fosters stronger intrinsic motivation. By implementing targeted motivational interventions, educators can cultivate an inclusive and engaging learning environment that supports all students in science learning.

Problem number 6. Is there a significant relationship between the assessment of the respondents in speaking difficulty and the level of students' motivation?

**Table 16:**
*Correlation Between the Assessment of the Respondents in Speaking Difficulty and the Level of Students' Motivation*

| | | Students' Motivation in Learning Science |
|---|---|---|
| Speaking Difficulty Scale | Pearson Correlation | -0.120 |
| | Sig. (2-tailed) | 0.353 |
| | N | 62 |

The analysis of the correlation between speaking difficulty and students' motivation in learning science reveals a weak negative relationship. This means that students who face greater challenges in speaking English tend to experience a slight decrease in motivation, but the relationship is not strong enough to suggest a major influence. This finding indicates that while speaking difficulties may affect students' confidence and participation, they are not the primary determinant of their motivation in science learning.

Interpreting these results suggests that other factors, such as self-efficacy, interest in science content, and the learning environment, may play a more significant role in shaping motivation levels. Students may remain motivated if they find science engaging or feel supported by their teachers and peers, even when they struggle with speaking English. This aligns with the findings of Zainuddin et al. (2022), who emphasized that motivation in STEM subjects is often more strongly influenced by internal interest and external support than by language barriers. Similarly, Khajavy et al. (2023) highlighted that self-efficacy and classroom climate are stronger predictors of motivation than language-related challenges.

The implication for educators is that while addressing speaking difficulties remains important, broader motivational strategies should be prioritized. Teachers can focus on fostering students' confidence, providing stimulating science activities, and creating a supportive classroom atmosphere that encourages participation regardless of language proficiency. Recent studies, such as those by García-García et al. (2023), show that well-structured, engaging learning environments can sustain student motivation even when language barriers exist. By combining targeted language support with motivational teaching strategies, educators can better support students' overall success in science.

Problem number 7. Based on the findings of the study, what action plan may be proposed?

Strengthening Science Education in Multilingual Classrooms: An Action Plan for Addressing Key Learning Barriers

*Introduction*

Science education is essential in preparing students with the knowledge and skills needed to thrive in today's global and technology-driven society. Yet, many students encounter barriers that limit their ability to fully engage and achieve success in science learning. Challenges such as language difficulties, psychological factors like low confidence and anxiety, and environmental constraints including insufficient classroom support often widen the gaps in learning and performance. Overcoming these challenges requires a holistic approach that enhances students' capabilities while improving the learning conditions they experience. This action plan seeks to implement targeted strategies that create inclusive, engaging,

and supportive science classrooms for all learners.

II. *Rationale:*

Based on the findings of the study, middle school students in Morocco face significant speaking difficulties in English due to linguistic challenges (grammar, vocabulary), psychological barriers (fear, anxiety), and environmental factors (oral exams, peer pressure, comprehension difficulties). Simultaneously, while students show high motivation in self-efficacy and learning value, they still need more support in maintaining performance and communication fluency. An integrated, supportive, and interactive action plan is necessary to bridge these gaps by enhancing language proficiency, reducing anxiety, and cultivating an encouraging learning environment.

III. *Objectives*

Build students' English-speaking confidence by holding weekly peer-dialogue sessions and aiming for a 20% confidence boost in 3 months.

Increase participation in science classes by using interactive activities twice a week to reach a 25% rise in participation within one quarter.

Lower students' speaking anxiety with confidence-building activities and positive feedback, targeting a 15% drop in anxiety in 12 weeks.

Improve science vocabulary skills through flipped-classroom vocabulary lessons every two weeks, aiming for a 30% better quiz performance in 10 weeks.

Make classrooms more supportive by training teachers in inclusive teaching strategies so that 90% apply them regularly by the end of the semester.

| Area of Concern | Objective | Strategies /Activities | Person Responsible | Budgetary Requirements | Time Frame | Success Indicator |
|---|---|---|---|---|---|---|
| Linguistic Factor | Improve vocabulary and language comprehension | Conduct vocabulary enrichment activities | Science Teacher | 1000 Moroccan Dirhams | Monthly | Students will improve their vocabulary and comprehension by 20–30% and 80% will use science terms better in class and written tasks by the end of the program. |
| Psychological Factors | Boost learner confidence and interest | Implement regular feedback and encouragement sessions workshops | Adviser/ Teacher | 2000 Moroccan Dirhams | Quarterly | At least 80% of students will report higher confidence and greater interest in learning science by the end of the program. |
| Learning Environment Factor | Enhance learning space and materials | Provide visual aids and hands-on science materials | Teachers & Subject Coordinators | 1000 Moroccan Dirhams | Weekly (in class) | At least 90% of students and teachers will report that the learning space and materials are more engaging and supportive by the end of the program. |
| Self-efficacy | Increase learner belief in science learning capabilities | Incorporate self-assessment and goal-setting sessions | Teacher | 1000 Moroccan Dirhams | Bi-annual | At least 85% of students will express stronger belief in their ability to succeed in science learning by the end of the program. |
| Active Learning Strategies | Engage learners through interactive tasks | Integrate experiments and group activities | Science Teacher | 3000 Moroccan Dirhams | Bi-monthly | At least 80% of students will actively participate in interactive tasks during science lessons by the end of the program. |
| Science Learning Value | Emphasize real-world applications of science concepts | Use contextualized teaching methods | Teacher | 1000 Moroccan Dirhams | Ongoing | At least 85% of students will be able to explain how science concepts apply to real-world situations by the end of the program. |

IV. Evaluation

The evaluation of the action plan will be conducted through pre- and post-assessments to measure improvements in students' science performance, vocabulary, and language comprehension. Motivation and self-efficacy surveys will be administered before and after the intervention to track changes in confidence, interest, and willingness to participate. Classroom participation will be closely monitored using structured observation checklists, while teacher logs and reflection reports will assess the effectiveness of instructional strategies implemented. Additionally, focus group discussions and interviews with students will provide qualitative insights into how the action plan has impacted their learning experiences, reduced anxiety, and improved communication skills. Success will be determined by a 20–30% improvement in assessment scores, at least a 25% increase in participation rates, 80% of students reporting reduced speaking anxiety, and inclusive teaching practices consistently observed in 90% of classrooms.

## IV. Summary of Findings, Conclusions, and Recommendations

This chapter presents the summary of findings derived from the data analysis in Chapter 4, the conclusions drawn from the results, and the recommendations based on the study's objectives. The research aimed to assess the relationship between motivation for speaking English and speaking difficulties in language learning, focusing on EFL/ESL learners. The study provides insight into how motivational factors impact speaking performance and difficulties among students.

Summarizing the study's outcomes based on the findings, the following points are highlighted:

The demographic profile shows a fairly balanced gender distribution, with slightly more female respondents than male, ensuring inclusive representation in the study. This balance allows for meaningful exploration of potential gender-related differences in motivation and speaking difficulties among learners.

This indicates that students are more driven by practical benefits such as academic success and career advancement.

3. There are observable gaps in learners' psychological preparedness and environmental support, which hinder science learning. These include low confidence levels and a lack of stimulating learning materials. Schools must invest in both



Ma. Rhodora C. Leuterio and Claire D. Vico, "Students' Motivation and Speaking Difficulties in Science: Basis for an Action Plan," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 3, pp. 192-215, 2025.

emotional and instructional support systems to foster an inclusive and effective science learning experience.

4. Despite curriculum-aligned efforts, some students still struggle with the application of science concepts, indicating the need for tailored instructional strategies and contextual interventions. Teachers are encouraged to design adaptive lesson plans that respond to the diverse needs and motivations of learners.

5. No significant correlation was found between integrative motivation and speaking difficulties, indicating that this type of motivation does not directly affect the ability to overcome speaking challenges.

6. The grade performance in English speaking showed a variation across respondents, with some students performing better in speaking tasks due to their higher levels of instrumental motivation and engagement.

7. An action plan was proposed, emphasizing practical language-learning activities that align with students' motivational factors, particularly instrumental motivation, to help reduce speaking difficulties and improve performance.

Conclusion

Instrumental motivation plays a central role in improving students' English-speaking abilities, particularly in overcoming speaking difficulties such as fluency and pronunciation.

Although integrative motivation is important, it appears less influential compared to instrumental motivation in reducing speaking challenges.

The findings indicate that students who are motivated by practical outcomes (e.g., career and academic success) are more likely to overcome speaking difficulties, particularly in fluency and pronunciation.

There is a need for instructional strategies that focus on improving instrumental motivation, ensuring that students see the value of English for practical purposes.

Speaking difficulties were not solely linked to motivational factors; other elements, such as teaching methods and individual learner characteristics, also played a role.

The relationship between motivation and speaking performance is complex, and while motivation is crucial, it must be paired with targeted speaking interventions to ensure improved performance.

The study supports the need for a more goal-oriented approach in language instruction, focusing on motivating students with practical language tasks and supporting them through specific speaking challenges.

Recommendations

Based on the conclusions of the study, the following recommendations are offered:

Teachers may highlight the practical benefits of learning English, such as job opportunities and academic success, through real-life tasks and scenarios.

Language programs can include specific exercises aimed at improving fluency and pronunciation, such as pronunciation drills, peer practice, and interactive speaking activities.

Educators may design differentiated speaking tasks that cater to varying levels of proficiency, ensuring that all students can gradually improve their speaking skills.

Teachers may integrate motivational theories into the curriculum and encourage students to set specific language-learning goals that align with their personal and professional aspirations.

Educators can incorporate tasks that mirror real-world applications of English, such as job-specific language tasks, to keep students motivated and engaged.

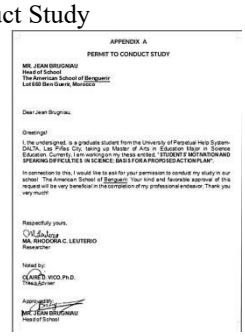
Ongoing support, including constructive feedback, can be provided to help students improve their speaking skills, particularly in areas where they experience difficulties.

Further studies may explore the interaction between different types of motivation and speaking difficulties in various cultural and educational contexts to refine language-learning strategies for diverse student populations.

## APPENDIX

APPENDIX A

Permit To Conduct Study



APPENDIX A
PERMIT TO CONDUCT STUDY

MR. JEAN BRUGNAUI
Head of School
The American School of Benguerir
Lot 650 Ben Guerir, Morocco

Dear Jean Brugnau,

Greetings!

I, the undersigned, is a graduate student from the University of Perpetual Help System-DALTA, Las Piñas City, taking up Master of Arts in Education Major in Science Education. Currently, I am working on my thesis entitled, "STUDENT'S MOTIVATION AND SPEAKING DIFFICULTIES IN SCIENCE: BASIS FOR A PROPOSED ACTION PLAN".

In connection to this, I would like to ask for your permission to conduct my study in our school The American School of Benguerir. Your kind and favorable approval of this request will be very beneficial in the completion of my professional endeavor. Thank you very much!

Respectfully yours,

MA. RHODORA C. LEUTERIO
Researcher

Noted by:

CLAIRE D. VICO, Ph.D.
Thesis Adviser

Approved by:

MR. JEAN BRUGNAUI
Head of School

APPENDIX B

Survey Questionnaire

Dear Respondents,

The researcher is currently conducting a study entitled "STUDENTS' MOTIVATION AND SPEAKING DIFFICULTIES IN SCIENCE: BASIS FOR AN ACTION PLAN". Please answer the following items honestly. Please do not leave any items blank as it may affect the result of the study. Rest assured that the responses will be treated with strict confidentiality.

MA. RHODORA C. LEUTERIO
Researcher

---

**Part I. Profile of the Respondents**
Directions: Check the box of your response.

**Sex:** ☐ Male ☐ Female

**Grade Level:** ☐ 6 ☐ 7 ☐ 8 ☐ 9

**Part II. Speaking Difficulty Scale**

Directions: Please assess your level of difficulty in speaking by choosing the response that best represents your experience. Check (/) the column corresponding to your answer following the scale.

Part II. Speaking Difficulty Scale

Directions: Please assess your level of difficulty in speaking by choosing the response that best represents your experience. Check (/) the column corresponding to your answer following the scale.



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| | | | | |
|---|---|---|---|---|
| explaining Science lessons | | | | |
| 3. I find it difficult when my teacher uses English while explaining Science lessons | | | | |
| 4. I find it difficult to speak a lot of English during Science lessons | | | | |
| 5. I find it difficult to speak a lot of English outside the classroom. | | | | |
| 6. I do not find it difficult to speak a lot of English outside the classroom | | | | |
| 7. I find it difficult when I have to speak without preparation during lessons | | | | |
| 8. I find it difficult to answer questions in English. | | | | |
| 9. I find it difficult trying to explaining important issues to friends in English. | | | | |
| 10. I find it difficult for speaking English to my teacher during Science lessons | | | | |
| **Learning Environment Factors** | | | | |
| 1. I find it difficult for taking English oral exams. | | | | |
| 2. I find it difficult for passing my English oral exams. | | | | |
| 3. I find it difficult to even remember the words or phrases I know from the English classroom. | | | | |
| 4. I find it difficult debating in English in the presence of the other students during Science lessons. | | | | |
| 5. I find it difficult speaking to native English speakers. | | | | |
| 6. I find it difficult to understand every word the teacher says in the Science classroom. | | | | |
| 7. I find it difficult to voluntarily answer questions during Science lessons | | | | |
| 8. I find it difficult to narrate or describe events orderly in English | | | | |
| 9. I find it difficult to present my academic research in English during oral presentations | | | | |
| 10. I find it difficult to defend myself effortlessly in English when arguing with my friends | | | | |

Part III. Students Motivation in Learning Science

Directions: Consider your motivational level for each statement and select the category that best represents your feelings. Check (/) the column corresponding to your answer following the scale.

| Scale | Point | Interpretation | Description |
|---|---|---|---|
| 4 | 3.50 - 4.00 | Strongly Agree | I experience very little difficulty in speaking. |
| 3 | 2.50 - 3.49 | Agree | I encounter some difficulty in speaking, but it does not significantly impede communication. |
| 2 | 1.50- 2.49 | Disagree | I face noticeable difficulty in speaking, affecting communication. |
| 1 | 1.00 - 1.49 | Strongly Disagree | I experience severe difficulty in speaking, making communication challenging. |

| **Linguistic Factors** | **4** | **3** | **2** | **1** |
|---|---|---|---|---|
| 1. I find it difficult for speaking English to foreign students in my class. | | | | |
| 2. I find it difficult to speak English directly without much thinking of native language whenever I speak | | | | |
| 3. I find it difficult to speak English naturally without switching to my native language | | | | |
| 4. It's difficult for me to be sure of myself when speaking English. | | | | |
| 5. I find it difficult whenever I speak English without hesitation | | | | |
| 6. I find it difficult to speak English without making grammatical mistakes | | | | |
| 7. I find it a difficult task in making English tenses correctly | | | | |
| 8. I find it difficult believing that I am better than the other students at speaking English. | | | | |
| 9. I always find it difficult to say it directly without phrasing it in Moroccan, then translating it into English. | | | | |
| 10. I find it difficult to improve my English-speaking proficiency due to fear | | | | |
| **Psychological Factors** | | | | |
| 1. I find it difficult to pronounce the English language fluently | | | | |
| 2. I find it difficult when my teacher uses Moroccan while | | | | |

APPENDIX C

Certificate From The Statistician

April 10, 2025

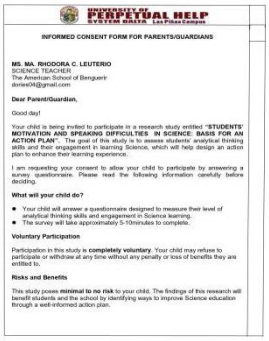
**CERTIFICATION**

This is to certify that the thesis entitled "**STUDENTS' MOTIVATION AND SPEAKING DIFFICULTIES IN SCIENCE: BASIS FOR AN ACTION PLAN**" prepared and submitted by **MA. RHODORA C. LEUTERIO** in partial fulfillment for the degree Master of Arts in Education major in Science has been statistically reviewed by the undersigned.

**OLIVER P. BALTAZAR**
Statistician

APPENDIX D

Parent Consent



**INFORMED CONSENT FORM FOR PARENTS/GUARDIANS**

**MS. MA. RHODORA C. LEUTERIO**
SCIENCE TEACHER
The American School of Benguerir
doriea04@gmail.com

**Dear Parent/Guardian,**

Good day!

Your child is being invited to participate in a research study entitled "**STUDENTS' MOTIVATION AND SPEAKING DIFFICULTIES IN SCIENCE: BASIS FOR AN ACTION PLAN**". The goal of this study is to assess students' analytical thinking skills and their engagement in learning Science, which will help design an action plan to enhance their learning experience.

I am requesting your consent to allow your child to participate by answering a survey questionnaire. Please read the following information carefully before deciding.

**What will your child do?**

- Your child will answer a questionnaire designed to measure their level of analytical thinking skills and engagement in Science learning.
- The survey will take approximately 5-10minutes to complete.

**Voluntary Participation**

Participation in this study is **completely voluntary**. Your child may refuse to participate or withdraw at any time without any penalty or loss of benefits they are entitled to.

**Risks and Benefits**

This study poses **minimal to no risk** to your child. The findings of this research will benefit students and the school by identifying ways to improve Science education through a well-informed action plan.

**Confidentiality and Data Privacy**

In compliance with the **Data Privacy Act of 2012 (RA 10173)**:

- All information collected will be kept **strictly confidential** and used solely for the purpose of this study.
- Your child's identity will not be disclosed in any report or publication.
- Data will be stored securely and disposed of properly after the study.
- By signing this form, you acknowledge that you have read and understood the information above and consent to allow your child to participate in the study.

**CONSENT**

☐ I have read and understood the information provided above.
☐ I voluntarily agree to allow my child to participate in the study.
☐ I understand that I can withdraw my consent at any time without consequence.

**Name of Student:** _____
**Grade & Section:** _____
**Name of Parent/Guardian:** _____
**Signature of Parent/Guardian:** _____
**Date:** _____

If you have any questions about the study or how your child's information will be handled, please feel free to contact me at doriea04@gmail.com.

Thank you very much for your kind support and cooperation.

Respectfully yours,

**MA. RHODORA C. LEUTERIO**
Researcher

Noted by:

**CLAIRE D. VICO,Ph.D.**
Thesis Adviser

APPENDIX E

Certificate of Originality

**CERTIFICATE OF ORIGINALITY**

This is to certify that the research paper with the following specifics has been checked for originality using the TURNITIN platform.

Title: **STUDENTS' MOTIVATION AND SPEAKING DIFFICULTIES IN SCIENCE: BASIS FOR AN ACTION PLAN**

Name of Student: **MA. RHODORA C. LEUTERIO**

Program: **Master of Arts in Education major in Science Education**

Date of Submission to TURNITIN: **July 31, 2025**

Percentage: **10%**

This is to further certify that all pertinent sources from which ideas and other extracts have been taken were duly acknowledged and cited. As it is, the project is free from any plagiarism and may be eligible for possible publication in any reputable peer reviewed or refereed journal.

Processed by

**Anabelle Tabuac**
Intellectual Property Officer

**Belinda T. Conde, PhD**
Research Director

**August 5, 2025**
Date Issued

**LAS PIÑAS CAMPUS**

APPENDIX F

Certificate of Data Processing



Ma. Rhodora C. Leuterio and Claire D. Vico, "Students' Motivation and Speaking Difficulties in Science: Basis for an Action Plan," *International Journal of Multidisciplinary Research and Publications (IJMRAP)*, Volume 8, Issue 3, pp. 192-215, 2025.


UNIVERSITY OF PERPETUAL HELP SYSTEM DALTA

CERTIFICATE OF DATA PROCESSING

Title: STUDENTS' MOTIVATION AND SPEAKING DIFFICULTIES IN SCIENCE: BASIS FOR AN ACTION PLAN

Name of Student: MA. RHODORA C. LEUTERIO

Program: Master of Arts in Education major in Science Education

This is to further certify the integrity of data which has been processed.

Belinda T. Conde, PhD
Research Director

August 5, 2025
Date Issued

LAS PIÑAS CAMPUS

APPENDIX G
LANGUAGE EDITING CERTIFICATION


UNIVERSITY OF PERPETUAL HELP SYSTEM DALTA

LANGUAGE EDITING CERTIFICATION

This is to certify that the research paper whose title appears below has been subjected to Language Editing.

Title: STUDENTS' MOTIVATION AND SPEAKING DIFFICULTIES IN SCIENCE: BASIS FOR AN ACTION PLAN

Name of Student: MA. RHODORA C. LEUTERIO

Program: Master of Arts in Education major in Science Education

Cristina D. Abaya
Research Assistant

August 5, 2025
Date Issued

LAS PIÑAS CAMPUS

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DR. EDUARDO C. ZIALCITA, Dean, Graduate School, for allowing the researcher to conduct the study;

DR. CLAIRE D. VICO, his thesis adviser, for the suggestions given for the improvement of the study, and for her immeasurable support and untiring perseverance in extending her knowledge to finish the study;

DR. ARLENE A. JUSTO, his panel chairman, for the comments, suggestions, and recommendations for the betterment of the study;

DR. VIERNALYN M. NAMA and PROF. GALILEO C. GERVACIO, his panel members, for their unselfish and unfailing suggestions and recommendations in this study;

To the RESPONDENTS, for their willingness to serve as subject of the study;

To the FAMILY and FRIENDS, of the researcher for their moral support and inspiring ideas and encouragement to pursue this work.

- Rhoda

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