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# Examining Language Anxiety and Academic Success of Saudi International Students in U.S. Colleges

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## ABSTRACT

*This study examines the relationship between academic performance (GPA), Foreign Language Classroom Anxiety (FLCA), and English proficiency (IELTS scores) among Saudi international students in the United States while considering demographic factors such as gender, age, college major, and length of U.S. residency. Data from 551 students, collected via an online survey, reveal a moderate negative relationship between FLCA and GPA but no significant correlation between IELTS scores and GPA. Regression analysis identifies key predictors of academic performance, including low FLCA levels, college majors, and earning a master's degree in English-speaking countries. The findings emphasize the importance of addressing language anxiety and demographic diversity to enhance academic success for Saudi students in U.S. colleges.*

**Keywords:**
language anxiety, academic performance, Saudi international students, IELTS Scores, international students, cultural adjustment

## INTRODUCTION

International students pursuing higher education in English-speaking countries must possess sufficient English proficiency to succeed academically. Proficiency in English enables students to navigate classroom discussions, academic tasks, and other learning contexts effectively (Al-Shehri & Al-Qahtani, 2024; Sowa, 2010). To demonstrate competency, prospective students typically submit scores from standardized tests, such as the International English Language Testing System (IELTS) or the Test of English as a Foreign Language (TOEFL). These

assessments evaluate the ability of international students to read, write, and communicate in English at the level required by colleges and universities (Curtin, 2019; Nuttall, 2019). Admissions committees often rely on these test scores as evidence of students' readiness to participate in higher education without the need for additional language remediation programs.

While achieving acceptable scores on the IELTS or TOEFL is a crucial step toward admission, these scores often fail to alleviate the challenges international students face when communicating in academic settings. Admission test results do not fully capture the variability in English fluency or the situational demands of academic discourse (Nam, 2018). Consequently, students who have passed proficiency exams may still encounter difficulties when engaging with technical language specific to their academic disciplines. For instance, even students with strong general English skills may struggle to grasp or apply specialized terminology within their field of study, affecting their academic progress.

Many international students experience a unique form of anxiety associated with learning and using a foreign language, known as Foreign Language Classroom Anxiety (FLCA). FLCA is defined as the anxiety stemming from a perceived inability to express oneself in a non-native language, particularly in academic or professional environments (Horwitz, 2000). This anxiety is often amplified in students who lack confidence in their oral or written communication skills, even after passing standardized language tests. When technical jargon and discipline-specific terminology are added, FLCA can become a significant barrier to academic performance.

Over the years, higher education research has highlighted the critical role of English proficiency in enabling international students to excel in core academic skills such as reading, writing, listening, and speaking (Alharbi & Bukhari, 2024; Basfar & Alotaibi, 2024; Barnawi, 2009; Razek & Coyner, 2014; Song, 2019). Additionally, studies suggest that addressing language-related anxiety can enhance students' academic confidence and self-efficacy, ultimately contributing to their overall academic success (AlAsiri, 2019; Alghamdi, 2020; Alsowat, 2016). Reducing FLCA in classroom settings fosters better engagement and performance among international students, providing them with a more equitable opportunity to succeed.

Saudi students, in particular, represent a significant proportion of international students in the United States, driven by their goal of achieving high-quality education and improving their English proficiency (Roy & Luo, 2020). In fact, Saudi Arabia ranks as the fourth-largest source of international students in the U.S., following China, India, and South Korea (Open Doors, 2020). Approximately 37,080 Saudi students were enrolled in U.S. universities as of 2020, with many benefiting from the King Abdullah Scholarship Program (KASP), which supports their academic pursuits by covering tuition, living expenses, and health insurance (Taylor & Albasri, 2014). Despite these efforts, Saudi students often report challenges related to English proficiency and FLCA, significantly affecting their academic and social integration.

Previous studies on international students have primarily focused on generalized experiences of language anxiety or the academic challenges faced by

specific groups, such as English majors. However, these studies often neglect the unique experiences of Saudi students, who frequently study diverse fields where English is not only a medium of communication but also an academic obstacle (Ahmed & Saleh, 2024; Alrabai, 2017). Additionally, many studies rely on small or localized samples, limiting their generalizability (Astin et al., 2012; Strayhorn, 2007). Few have explored the interplay between English proficiency, FLCA, and academic performance while considering demographic variables such as gender, academic level, or socioeconomic background.

As the number of Saudi students in U.S. universities continues to grow, there is a pressing need to understand better the factors influencing their academic performance. This study aims to address the research gaps by investigating how FLCA, English proficiency (as measured by standardized test scores), and demographic variables collectively impact the academic success of Saudi students (Alghamdi, 2024; Al-Shboul, 2013).

The purpose of this quantitative correlational study is to examine the relationship between Foreign Language Anxiety (measured by FLCAS), academic performance (self-reported GPA), and English proficiency (self-reported TOEFL or IELTS scores) among Saudi students in the United States.

**Research Questions:**

- What is the relationship between Foreign Language Classroom Anxiety (FLCAS), English proficiency (IELTS scores), and academic performance (GPA) among Saudi international students in U.S. colleges?
- How do demographic variables relate to Foreign Language Classroom Anxiety (FLCAS), English proficiency (IELTS scores), and academic performance (GPA) among Saudi international students in U.S. colleges?

## LITERATURE REVIEW

### Theoretical Framework

Astin's Inputs-Environment-Outputs (I-E-O) model (Astin, 1997) serves as the theoretical framework for this study. It offers a comprehensive approach to understanding academic achievement by incorporating individual characteristics, environmental factors, and educational outcomes. The model has been widely validated in various contexts, including its application to explaining academic achievement among diverse student populations (Astin, 1999).

The I-E-O model consists of three components: **Inputs**: These refer to the individual characteristics students bring to the educational setting, such as demographic factors (e.g., age, gender, socio-economic status), prior academic preparation, and English proficiency (IELTS scores). Inputs directly influence both the environment and the outputs of learning.

**Environment**: This encompasses the lived academic experiences of students, such as their exposure to foreign language classroom anxiety (FLCA), interactions with faculty, and engagement in campus activities. Environmental factors shape the academic outputs and are influenced by students' inputs.

**Outputs**: These represent the educational outcomes, such as academic achievement measured by self-reported grade point average (GPA). Outputs are impacted by both inputs and environmental factors.

The I-E-O model is well-suited to this research, where demographic factors and English proficiency serve as inputs, FLCA is an environmental factor, and GPA represents the output. This model allows for analyzing inputs' and environmental factors' direct and mediated effects on academic achievement.

**Saudi International Students in the US**

According to the Open Doors Report for 2023-2024, 15,989 students from Saudi Arabia studied in the United States, a significant decrease from the previous year's 61,287 students. The Open Doors Report (2024), an annual publication detailing international student trends, also indicated that 1.1 million international students studied in the U.S. during 2023-2024, marking a 7% increase from the prior year. Saudi Arabia ranked as the fourth leading country of origin for international students in the U.S., following China, India, and South Korea. International students, including those from Saudi Arabia, contributed over $50 billion to the U.S. economy.

As of 2020, the Saudi Arabian Cultural Mission (SACM) reported that 37,080 Saudi students were pursuing higher education in the United States, with approximately 80% funded through the King Abdullah Scholarship Program. Of these students, two-thirds were enrolled in undergraduate programs, while one-third pursued graduate degrees. Most Saudi students attend U.S. institutions recognized by SACM, which oversees their academic and cultural needs. Based in Washington, D.C., SACM was established in 1951 to facilitate Saudi students' academic success and acts as a mediator between U.S. institutions and the Saudi government.

Many Saudi students begin their studies in English language proficiency programs for one to two years before transitioning to their academic programs. They often transfer between institutions to find suitable degree programs (SACM, 2020). Limited research exists on their academic achievement, and findings have been inconsistent. Some studies attribute lower academic performance to challenges in adjusting to American higher education's cultural, social, and academic expectations (Alghamdi, 2020; Unruh & Obeidat, 2015). Others report that Saudi students achieve high GPAs, such as 3.5/4.0 (Alghamdi, 2020). These discrepancies may stem from variations in research methodologies, sampling techniques, and data analysis procedures.

**Foreign Language Classroom Anxiety (FLCAS) and Academic Performance**

Foreign Language Classroom Anxiety (FLCAS) is a well-documented factor influencing international students' academic performance. Horwitz (2016) established that FLCAS negatively impacts students' academic outcomes by affecting their ability to engage with peers, faculty, and course materials. Specifically, anxiety related to communication apprehension, fear of negative evaluation, and test performance is linked to lower GPAs among international students (Ali & Fei, 2016; Razak et al., 2017). Empirical studies have shown that higher FLCAS scores correlate with reduced academic achievement, as observed in samples of Yemeni, Malaysian, and Turkish students studying English as a foreign language (Doğan & Tuncer, 2016; Onwuegbuzie et al., 1999).

Research by Marcos-Llinás and Garau (2009) found weak but significant negative correlations between FLCAS and GPA in international students in the U.S., with the level of anxiety varying by academic level and prior language exposure. For example, graduate students typically reported lower anxiety levels than undergraduates due to their extended exposure to English and academic settings. Similarly, studies on Saudi students (e.g., Alrabai, 2017) have confirmed that higher FLCAS scores are associated with poorer academic performance, particularly among students with limited English proficiency.

**English Proficiency (IELTS) and Academic Performance**

English proficiency, as measured by standardized tests like the IELTS, is a critical predictor of academic success for international students (Woodrow, 2006). Higher IELTS scores are generally associated with better academic performance, including higher GPAs and improved retention rates (Martirosyan et al., 2015). However, some studies have reported inconsistent findings regarding the strength of this relationship. For instance, Alzahrani (2019) observed that Saudi students often underperform on standardized English tests compared to peers from other regions, despite achieving comparable GPAs. This discrepancy may be attributed to social desirability bias in self-reported IELTS scores or the overrepresentation of graduate students in study samples.

Almás et al. (2016) highlighted that demographic factor, such as prior educational background and socioeconomic status, significantly moderate the relationship between English proficiency and academic performance. Students who attended English-speaking high schools or completed undergraduate degrees in English-speaking countries tend to perform better academically, as seen in the studies of Saudi students by Alsahafi and Shin (2017). Conversely, students with limited prior exposure to English are more likely to struggle, even with acceptable IELTS scores.

**Demographic Variables and Academic Performance**

Demographic factors such as age, gender, marital status, and educational background play a pivotal role in shaping the academic experiences of international students. Research by Bailey and DiPrete (2016) and Almás et al. (2016) found that younger students and those from economically advantaged

families tend to perform better academically. Female students often report higher anxiety levels but are more likely to seek academic support, leading to comparable or superior academic outcomes relative to male students (Benner et al., 2016; Zwick, 2012).

Studies on Saudi students have shown that academic performance varies significantly based on factors such as funding type and high school background. Students funded by the King Abdullah Scholarship Program (KASP) generally report higher GPAs due to financial stability and resource access (Alqahtani, 2019). Additionally, students from private or international high schools with English instruction outperform their peers from public schools, who often face greater challenges in adapting to U.S. academic environments (Drbseh, 2019).

**Integration of FLCAS, IELTS, and Demographic Variables**

Few studies have examined the combined effects of FLCAS, English proficiency, and demographic factors on academic performance. Horwitz (2000) emphasized the need for holistic models that consider these variables simultaneously to understand their interrelationships better. Wu et al. (2015) and Roick and Ringeisen (2017) found that integrating these factors into predictive models improves the accuracy of academic performance predictions.

For Saudi students, Al-Krenawi et al. (2020) observed that FLCAS and IELTS scores interact with demographic factors such as age and prior educational experience to influence GPA. For example, students with lower FLCAS scores and higher IELTS scores, particularly those with prior exposure to English through international schooling, tend to achieve better academic outcomes. However, the lack of longitudinal studies and representative samples has limited the generalizability of these findings.

## RESEARCH DESIGN

This study adopts a quantitative, correlational research design to investigate the relationships among academic performance (self-reported GPA), foreign language anxiety (FLCAS), and English proficiency (IELTS). Additionally, it examines the influence of demographic factors on these relationships among Saudi international students studying in the United States. As no secondary data exist on these variables for this population, this study is the first to collect original data on FLCAS, IELTS scores, and GPA from Saudi students in U.S. colleges and universities.

### Sample

The study targeted Saudi undergraduate and graduate students enrolled in academic programs at U.S. institutions accredited by the Saudi Cultural Mission (SACM), which sponsors most Saudi students. These institutions include research-intensive universities, teaching-oriented colleges, Historically Black Colleges and Universities, and liberal arts institutions. A convenience sample of

551 Saudi students was recruited through SACM, which disseminated the survey via email to its entire student list. The first 551 complete responses were included in the analysis, encompassing both funded and unfunded students.

**Data Collection and Procedures**

Data were collected using an online survey hosted on the SurveyMonkey platform, distributed through SACM's email list. The survey included information about its purpose, value, and potential risks and a consent form. Participation was voluntary, and respondents were assured of confidentiality. The survey took 5-10 minutes to complete and contained 33 items from the Foreign Language Classroom Anxiety Scale (FLCAS) and sections for demographic information, English proficiency, and academic performance. Participants were informed they could withdraw at any time without consequences.

Before data collection, the researcher obtained approval from the Morgan State University Institutional Review Board (IRB) and completed human subjects research training through the Collaborative Institutional Training Initiative (CITI).

**Instrumentation**

The survey instrument (Horwitz, 2000) included three main components: demographic factors, English proficiency, and academic achievement, along with the FLCAS.

**Demographic Factors**: Respondents provided information on gender, age, marital status, length of U.S. residency, education level, financial support type, and field of study.

**English Proficiency**: Self-reported IELTS scores (or equivalent scores from TOEFL, PTE, or Duolingo, converted to IELTS) were collected, ranging from 1.0 to 9.0.

**Academic Achievement**: Respondents reported their GPA on a 4.0 scale, categorized as 1.0-2.0, 2.1-3.0, or 3.1-4.0.

**Foreign Language Classroom Anxiety Scale (FLCAS)**: This validated 33-item instrument measures communication apprehension, fear of negative evaluation, and test anxiety, using a five-point Likert scale. Items reflecting a lack of anxiety were reverse-coded, and total scores ranged from 33 to 165.

The FLCAS has demonstrated strong reliability and validity. Cronbach's alpha for internal consistency was $\alpha = .93$, and test-retest reliability after eight weeks was $r = .83$. Criterion validity studies reported acceptable correlations between FLCAS scores and related measures, such as the Trait Anxiety Inventory

and final course grades. For this study, the reliability of the FLCAS instrument was confirmed using Cronbach's alpha, ensuring robust psychometric properties.

## RESULTS

### Demographic Characteristics of Participants

The study included 551 Saudi international students studying in the United States, with the majority being male (62.3%) and aged between 26 and 33 years (53.4%). More than half of the participants were married (51.4%), and a significant portion (58.1%) did not have children. Most students had been in the U.S. for 1-5 years (75.3%) and were pursuing graduate education, with 39% enrolled in master's programs and 25.8% in doctoral programs. Science-related majors were the most common field of study (41.2%), followed by human studies (33.9%). Notably, 71.1% of participants were financially supported through the Saudi Arabian Cultural Mission (SACM) scholarship.

Regarding language preparation, 78.6% of students attended Saudi public high schools, while only 11.6% completed their bachelor's degrees in English-speaking countries. For master's degrees, 35.9% were obtained in English-speaking countries. Before beginning their academic programs, 34.7% of students reported taking three or more semesters of English language instruction. Academically, 86.4% of participants reported GPAs between 3.1 and 4.0, while most earned a score of 6.0 (37.4%) on the IELTS. Anxiety levels, measured by the Foreign Language Classroom Anxiety Scale (FLCAS), indicated that 33.8% of students experienced high anxiety.

**Table 1**
*Participants' Demographic Characteristics (N=551)*

| Description | *f* | *%* |
|---|---|---|
| **Gender** | | |
| Male | **343** | **62.3** |
| Female | 208 | 37.7 |
| Total | 551 | 100.0 |
| **Age** | | |
| 18-25 | 158 | 28.7 |
| 26-33 | **294** | **53.4** |
| 34 - 41 | 81 | 14.7 |
| 42 and above | 17 | 3.1 |
| Total | 550 | 99.8 |
| Missing Data | 1 | 0.2 |

| | | |
|---|---|---|
| Marital Status | | |
| Married | **283** | **51.4** |
| Not married | 265 | 48.1 |
| Other | 3 | .5 |
| Total | 551 | 100.0 |
| Parental status | | |
| Have children | 228 | 41.4 |
| Do not have children | **320** | **58.1** |
| Length of studying in the US | | |
| 1-5 years | **415** | **75.3** |
| 6 and more | 136 | 24.7 |
| College Major/Disciplines | | |
| Business | 72 | 13.1 |
| Science | **227** | **41.2** |
| Medical | 13 | 2.4 |
| Humanities | 187 | 33.9 |
| College Classification | | |
| Freshman | 53 | 9.6 |
| Sophomore | 34 | 6.2 |
| Junior | 33 | 6.0 |
| Senior | 67 | 12.2 |
| Masters | **215** | **39.0** |
| Doctoral | 142 | 25.8 |
| Financial Support | | |
| SACM Scholarship | **392** | **71.1** |
| Itself | 35 | 6.4 |
| College GA/TA | 123 | 22.3 |
| Total | 550 | 99.8 |
| Missing Data | 1 | 0.2 |
| Total | 551 | 100.0 |

**Relationship Between FLCAS, IELTS, and GPA**

To explore the relationships between FLCAS and IELTS scores, and academic performance (GPA) among Saudi international students in U.S. colleges, Pearson's correlation analysis was conducted. A Pearson's correlation revealed no statistically significant relationship between IELTS scores and GPA, $r(549) = .045$, $p = .320$. This indicates that English proficiency, as measured by

IELTS scores, does not significantly correlate with academic performance (GPA) among the participants. The analysis also found a statistically significant negative correlation between FLCAS and GPA, $r(549) = -.109$, $p = .010$. This suggests that higher levels of foreign language anxiety are associated with lower GPA scores. However, the effect size ($r^2 = .01$) indicates that FLCAS accounts for only 1% of the variability in GPA. Additionally, there was a significant negative correlation between IELTS scores and FLCAS, $r(549) = -.337$, $p < .001$, with FLCAS explaining approximately 10% of the variation in IELTS scores.

These findings highlight that while foreign language anxiety has a small but significant relationship with GPA, IELTS scores do not significantly predict academic performance. The relationship between IELTS and FLCAS underscores the potential impact of anxiety on English proficiency levels.

**Predictors of Foreign Language Classroom Anxiety (FLCA)**

A multiple regression analysis examined the predictors of Foreign Language Classroom Anxiety (FLCA) among Saudi international students. The overall model was statistically significant, $F(30, 514) = 2.736$, $p < .001$, with an $R^2$ value of .103, indicating that approximately 10.3% of the variance in FLCA was explained by the predictors. Significant predictors included gender, age, academic classification, field of study, and high school type. Female students reported higher FLCA levels compared to male students ($b = .212$, $p < .05$). Freshman students were significantly more likely to experience higher FLCA ($b = .485$, $p < .05$), as were students majoring in human studies ($b = .236$, $p < .05$). Conversely, younger students aged 18 to 25 years ($b = -.278$, $p < .05$) and those who attended private high schools teaching in Arabic ($b = -.272$, $p < .05$) reported lower FLCA levels.

Non-significant predictors included marital status, parental status, classification as sophomore, junior, senior, or doctoral student, and majors in business, medical, art, linguistics, or ESOL. Other variables, such as obtaining a bachelor's or master's degree from an English-speaking country, length of U.S. residency, semesters spent learning English, financial support type, and GPA, did not significantly predict FLCA. These findings indicate that demographic and educational factors such as gender, age, and academic status are critical in influencing FLCA levels. The results suggest the need for targeted interventions to mitigate FLCA among higher-risk subgroups, particularly female students, freshmen, and those majoring in humanities majors.

**Predictors of Academic Performance (GPA)**

A multiple linear regression analysis was conducted to examine whether demographic characteristics predict the self-reported GPA of Saudi international students in U.S. colleges. Baseline reference categories included male gender, age 26-33, married status, no children, master's degree level, 1-5 years of U.S. residency, science major, Saudi Public High School education, SACM financial

support, and three or more semesters of English language preparation. Prior to analysis, tests for multicollinearity confirmed that assumptions were met.

**Table 2**
*Multiple Regression Analysis Results on the Predictors of Foreign Language Classroom Anxiety*

| Predictors | | | | | | 95 CI | |
|---|---|---|---|---|---|---|---|
| | | | | | | Lower Bound | Upper Bound |
| | *b* | *S.E.* | *β* | *t* | *p* | | |
| Female (base= Male) | .212 | .075 | .126 | 2.810 | **.005** | .064 | .360 |
| Age 18 to 25 | -.278 | .130 | -.154 | -2.131 | **.034** | -.534 | -.022 |
| 34 to 40 | .180 | .108 | .078 | 1.661 | .097 | -.033 | .392 |
| 42 and above (base= 26 to 33) | .050 | .206 | .011 | .244 | .808 | -.355 | .455 |
| Marital Status (no), (base= Marital Status (yes)) | .015 | .117 | .009 | .129 | .897 | -.215 | .246 |
| Parental Status (yes) (base= Parental Status (no)) | -.004 | .117 | -.002 | -.033 | .974 | -.234 | .226 |
| Freshman | .485 | .172 | .176 | 2.830 | **.005** | .148 | .822 |
| Sophomore | .241 | .199 | .071 | 1.214 | .225 | -.149 | .631 |
| Junior | .173 | .190 | .051 | .912 | .362 | -.200 | .546 |
| Senior | .123 | .154 | .049 | .798 | .425 | -.179 | .425 |
| Doctoral (base= Master's) | -.216 | .110 | -.115 | -1.960 | .051 | -.432 | .001 |

Continued…

| Predictors | *b* | *S.E.* | *β* | *t* | *p* | Lower Bound | Upper Bound |
|---|---|---|---|---|---|---|---|
| ESOL | .217 | .224 | .042 | .969 | .333 | -.224 | .658 |
| Human Studies | 236 | .082 | .137 | 2.862 | **.004** | .074 | .398 |
| Business | .175 | .110 | .072 | 1.584 | .114 | -.042 | .391 |
| Medical | .380 | .230 | .071 | 1.652 | .099 | -.072 | .832 |
| Linguistics<br>*(base= Science)* | -.177 | .193 | -.040 | -.914 | .361 | -.556 | .203 |
| Bachelor's degree from English-speaking country (yes) | -.117 | .124 | -.046 | -.944 | .345 | -.361 | .127 |
| Bachelor's degree from English-speaking country (not yet)<br>*(base=* Bachelor's degree from English-speaking country (no)) | .180 | .147 | .094 | 1.225 | .221 | -.108 | .468 |
| Master's degree from English-speaking country (yes) | .007 | .101 | .004 | .072 | .942 | -.191 | .206 |
| Master's degree from English-speaking country (no)<br>*(Base= Master's degree from English-speaking country (not yet)* | .122 | .093 | .065 | 1.303 | .193 | -.062 | .305 |
| Length of studying in the US (6 and more)<br>*(Base= Length of studying in the US (1 to 5 years))* | -.057 | .098 | -.030 | -.588 | .557 | -.249 | .134 |

*Note:* Significant results range from $p < 0.001$ to $p < 0.05$ level. Dependent Variable: FLCAS ($R2 = .103$).

**Table continued**

| Predictors | | | | | | 95 CI | |
|---|---|---|---|---|---|---|---|
| | *b* | S.E. | *β* | *t* | *p* | Lower Bound | Upper Bound |
| Semesters' numbers of learning English language (0) | -.103 | .133 | -.037 | -.774 | .440 | -.366 | .159 |
| Semesters' numbers of learning English language (1) | -.095 | .092 | -.052 | -1.030 | .303 | -.276 | .086 |
| Semesters' numbers of learning English language (2) *(Base= Semesters' numbers of learning English language (3))* | .015 | .089 | .008 | .172 | .864 | -.160 | .191 |
| International High School (teaching in English) | .155 | .203 | .036 | .761 | .447 | -.245 | .554 |
| Private High School (teaching in Arabic) *(Base= Public High School (teaching in Arabic))* | -.272 | .092 | -.126 | -2.948 | **.003** | -.453 | -.091 |
| College GA/TA Financial Support | -.053 | .096 | -.027 | -.553 | .581 | -.242 | .136 |
| Self-Funding Financial Support *(Base= SACM Financial Support)* | .033 | .144 | .010 | .230 | .819 | -.249 | .315 |
| GPA | -.141 | .084 | -.074 | -1.685 | .093 | -.305 | .023 |

*Note:* Significant results range from $p < 0.001$ to $p < 0.05$ level. Dependent Variable: FLCAS (R2 = .103)

The regression model was statistically significant, $F(29, 515) = 2.554$, $p < .001$, with an $R^2$ of .126, indicating that the predictors explained 12.6% of the variance in GPA. Significant predictors included age 18 to 25 years ($b = .138$, $p < .05$), enrollment in English to Speakers of Other Languages (ESOL) programs ($b = -.296$, $p < .05$), and having a master's degree from an English-speaking country ($b = -.147$, $p < .05$). Specifically, younger students (18-25 years) demonstrated higher GPAs compared to the baseline age group (26-33 years), while students enrolled in ESOL programs reported lower GPAs compared to science majors. Additionally, students who had obtained a master's degree from

an English-speaking country reported slightly lower GPAs compared to those who had not yet obtained their degree.

**Table 3,** *Multiple Regression Analysis Results on the Predictors of Academic performance*

| Predictors | | | | | | 95 CI | |
|---|---|---|---|---|---|---|---|
| | *b* | S.E. | *β* | *t* | *p* | Lower Bound | Upper Bound |
| Female | .002 | .040 | .002 | .046 | .963 | -.076 | .080 |
| *(base= Male)* | | | | | | | |
| Age 18 to 25 | .138 | .068 | .145 | 2.014 | **.045** | .003 | .272 |
| 34 to 40 | .052 | .057 | .043 | .909 | .364 | -.060 | .164 |
| *42 and above (base= 26 to 33)* | .013 | .109 | .005 | .116 | .908 | -.201 | .226 |
| Marital Status (no) | .034 | .062 | .040 | .550 | .582 | -.087 | .155 |
| *(base= Marital Status (yes))* | | | | | | | |
| Parental Status (yes) | .011 | .062 | .012 | .174 | .862 | -.110 | .132 |
| *(base= Parental Status (no))* | | | | | | | |
| Freshman | -.155 | .090 | -.108 | -1.724 | .085 | -.332 | .022 |
| Sophomore | -.029 | .105 | -.017 | -.281 | .779 | -.235 | .176 |
| Junior | -.117 | .100 | -.065 | -1.170 | .243 | -.313 | .079 |
| Senior | -.120 | .081 | -.092 | -1.487 | .138 | -.279 | .039 |
| Doctoral | .083 | .058 | .085 | 1.433 | .153 | -.031 | .197 |
| *(base= Master's)* | | | | | | | |

*Note:* Significant results range from $p < 0.001$ to $p < 0.05$. DV: GPA (R2 = .126).

Non-significant predictors included gender, age groups 34-40 and 42 and above, marital and parental status, academic classifications (freshman, sophomore, junior, senior, doctoral), and majors in business, medical, human studies, art, or linguistics. Other variables such as high school type (private or international), length of U.S. residency, number of semesters in English language

preparation (0, 1, or 2), and financial support sources (GA/TA or self-funded) did not significantly predict GPA.

These findings suggest that younger students and those pursuing certain academic pathways may experience different outcomes in academic performance. Students in ESOL programs may face additional challenges that impact GPA compared to peers in science majors, underscoring the need for tailored academic support for these subgroups.

**Summary of Results**

There is a negative relationship between FLCAS and GPA ($r$ = -.109, $p$ < .01), indicating that higher levels of anxiety are associated with lower academic performance. There is a negative relationship between FLCAS and IELTS scores ($r$ = -.337, $p$ < .001), suggesting that higher anxiety is linked to lower English proficiency. There is no significant relationship between IELTS scores and GPA ($r$ = .045, $p$ = .320).

FLCAS: Female students, freshmen, and those majoring in human studies report higher anxiety, while younger students (18-25 years) and those from private high schools teaching in Arabic report lower anxiety.

IELTS Scores: Students with longer U.S. residency and older age groups tend to have higher English proficiency.

GPA: Younger students (18-25 years) have higher GPAs, while students in ESOL programs report lower GPAs. Other demographic factors, such as gender and marital status, do not significantly influence GPA.

These findings suggest that anxiety and demographic factors impact academic performance and English proficiency but to varying degrees.

## DISCUSSION AND CONCLUSIONS

This study investigated the predictors of academic performance among Saudi international students in U.S. colleges, focusing on the relationships between Foreign Language Classroom Anxiety (FLCAS), English proficiency (IELTS scores), and demographic variables. The findings indicated a statistically significant negative correlation between FLCAS and GPA, consistent with prior research (Ali & Fei, 2016; Razak, Yassin, & Maasum, 2017). Higher levels of anxiety were associated with lower academic performance, echoing findings from diverse student populations, such as Turkish students (Doğan & Tuncer, 2016) and Yemeni students (Razak et al., 2017). These results reaffirm that foreign language anxiety negatively impacts academic achievement across cultural and educational contexts (Onwuegbuzie, Bailey, & Daley, 1999; Aida, 1994).

However, this study did not find a significant relationship between IELTS scores and GPA, which diverges from previous findings that linked higher English proficiency to improved academic performance (Martirosyan, Hwang, & Wanjohi, 2015; Poyrazli & Kavanaugh, 2004). A possible explanation for this discrepancy is the high proportion of graduate students (65%) in the sample, who

tend to have both high GPAs and sufficient IELTS scores as program requirements. This homogeneity likely reduced variability, masking any potential association. Furthermore, 37% of participants reported a score of 6.0 on the IELTS, which aligns with graduate admissions criteria. Social desirability bias might also have influenced self-reported IELTS scores, as prior studies have shown Saudi students often perform at lower levels on such tests (Alzahrani, 2019).

Demographic variables exhibited minimal effects on academic performance. While regression analysis identified a few significant predictors, such as age (18–25 years) and ESOL enrollment, the model's explanatory power was limited ($R^2 = .126$). Younger students reported higher GPAs, potentially due to fewer responsibilities than older students, while ESOL programs exhibited lower GPAs, likely reflecting the challenges of language acquisition. These findings align with prior research showing that early exposure to English improves academic outcomes (Ahmed & Saleh, 2024; Doğan & Tuncer, 2016). However, other demographic factors, such as gender and marital status, did not significantly influence GPA, contradicting studies that observed better academic outcomes for female students (Alharbi & Bukhari, 2024; Alghamdi, 2024; Bailey & DiPrete, 2016; Kuh et al., 2006). This inconsistency could stem from the lower participation of females in this sample or inflated self-reported GPAs by male participants.

The study also found that female students, freshmen, and those majoring in human studies reported higher levels of FLCAS. These results support previous research indicating that females generally experience more anxiety than males in educational settings (Bahrami & Yousefi, 2011; Lindemann, 1996). Freshmen and humanities major likely face heightened anxiety due to their reliance on language-intensive tasks such as writing and speaking, which are less prevalent in science and technical fields (Halder, 2018). Moreover, students who attended private high schools teaching in Arabic reported lower anxiety levels, possibly due to better preparation and individualized support from their schools, which aligns with Bailey and DiPrete's (2016) findings on the benefits of educational preparation.

Despite the limited predictive power of demographic variables, this study highlights the importance of English exposure in academic success. The findings indicate that Saudi students who completed graduate degrees in English-speaking countries performed better academically. However, the lack of association between college classification (e.g., freshman vs. senior) and GPA, as well as between private high school attendance and GPA, underscores the role of other factors, such as funding support and standardized educational preparation, in shaping academic outcomes. Unlike American students, whose outcomes are often influenced by socioeconomic disparities, Saudi students benefit from government-funded education and scholarships, reducing variability in academic performance.

In conclusion, this study contributes to understanding the nuanced relationships among FLCAS, IELTS scores, and GPA for Saudi international students. While anxiety and demographic factors have measurable effects, their overall influence is limited, suggesting the need for further research to explore

additional predictors of academic success, such as motivation, institutional support, and cultural adaptation. These findings can inform interventions to reduce anxiety and improve international students' academic performance in diverse educational contexts.

**Implications for Practice**

This study highlights significant implications for faculty and administrators in U.S. higher education institutions supporting Saudi international students. The negative correlation between Foreign Language Classroom Anxiety (FLCAS) and academic achievement suggests the need for targeted interventions to mitigate anxiety and enhance academic success. Faculty can adopt active and cooperative learning strategies, such as think-pair-share and group discussions, to create a supportive environment where international students can build confidence in using English. These approaches can help students improve their language skills while fostering self-efficacy, consistent with Nagahashi (2007).

English as a Second Language (ESL) programs and international student offices should emphasize workshops teaching coping strategies for managing language-related anxiety. Such workshops can include practical sessions on positive thinking, note-taking, and public speaking. Additionally, personalized conversational programs that match Saudi students with native speakers should be expanded. Regular one-to-one sessions can help students practice English and reduce speaking-related anxiety. Colleges should also encourage a culture of tolerance for language errors, celebrating student contributions irrespective of English proficiency levels. Faculty and staff can publicly acknowledge and encourage students' efforts, fostering a positive and inclusive learning environment.

The Saudi Cultural Mission (SACM) is important in coaching students on coping with academic and language-related challenges. Advisors should proactively reach out to students, providing continuous support. SACM's leadership must ensure advisors have the resources and institutional backing to guide students effectively. The findings also underline the importance of preparatory programs for Saudi students before they arrive in the U.S., focusing on English proficiency, cultural adaptation, and managing academic stress.

**Implications for Theory**

This research strongly supports Astin's Input-Environment-Output (I-E-O) model (1991), demonstrating that environmental factors such as foreign language anxiety significantly influence academic outcomes. The study also confirms that prior academic preparation, exposure to English, and demographic variables play roles in shaping student performance, albeit with limited predictive power for some inputs. The model's applicability to Saudi international students broadens its relevance to diverse student populations in U.S. higher education.

Interestingly, the findings suggest that environmental factors, including anxiety and English exposure, are more predictive of academic achievement than

demographic characteristics. This contrasts with studies on American students where demographic variables, such as socioeconomic status, often hold significant explanatory power (Bailey & DiPrete, 2016). Saudi students' relatively homogeneous educational and funding experiences, such as public education and government sponsorship, likely explain this distinction.

The mediating role of English exposure in the relationship between anxiety and academic performance is an important theoretical insight. Students with prior degrees in English or who engaged extensively in English-focused programs were less likely to experience anxiety and more likely to excel academically. This finding aligns with Doğan and Tuncer (2016), who emphasized the role of consistent language practice in reducing anxiety and improving performance.

**Recommendations**

Colleges should redesign ESL programs to emphasize academic English tailored for specific disciplines rather than general language skills. Short, intensive immersion programs focusing on academic writing, communication, and cultural adaptation could better prepare students for success. Institutions should also provide professional development for staff supporting international students, ensuring they can address students' unique challenges.

SACM could develop a comprehensive pre-departure program to prepare Saudi students for academic life in the U.S., covering English skills, stress management, and cultural adaptation. This would complement the findings that preparation and consistent English exposure are critical for academic achievement. This research contributes valuable insights into the interplay of anxiety, English proficiency, and demographic variables, providing actionable recommendations for enhancing the academic experiences of Saudi international students.

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