

A Comparative Analysis of Study Contentment among African Students Studying in China

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Abstract

Under the Belt and Road Initiative, China has become a major destination for African students, yet research often treats them as a single group. This mixed-methods study compares learning motivation and study contentment, a holistic evaluation of academic, linguistic, administrative, residential, and social experiences across the period of enrollment, between French-speaking and English-speaking African students in China. A purposive quota sample of 400 students (200 from Chad and Côte d'Ivoire; 200 from Ghana and Nigeria) at 15 Chinese universities completed a 28-item bilingual questionnaire (valid response rate 95.2%), and 40 took part in semi-structured interviews. Analyses included independent-samples t-tests, chi-square tests, covariate-adjusted ordinary least squares regression, and thematic analysis. English-speaking students reported higher overall study contentment ($M = 3.76$ vs. 3.21 ; $t(398) = 8.72$, $p < 0.001$) and learning motivation ($M = 3.82$ vs. 3.36 ; $t(398) = 7.19$, $p < 0.001$) and more often engaged proactively in class (78.0% vs. 49.5%; $\chi^2(1, N = 400) = 32.47$, $p < 0.001$). The largest gap was in language adaptation ($\Delta = 1.17$), with 68.5% of French-speaking students reporting persistent difficulties in both English and Mandarin. Both groups rated scholarship support (91.0%) and campus safety (87.5%) highly. Regression models controlling for gender, study level, length of stay, and scholarship status explained 67.3% of the variance in contentment and 58.6% in motivation, with linguistic background significant in both ($p < 0.001$). The findings show that colonial linguistic heritage shapes African students' experiences in China and support targeted multilingual services for French-speaking students.

Keywords

African International Students, Study Contentment, Learning Motivation, French-Speaking African Students, English-Speaking African Students, China-Africa Educational Cooperation, Cross-Cultural Student Adaptation

1. Introduction

1.1. Research Context, Significance, and Literature Gap

In an era of intensified globalization and South-South cooperation, international higher education has emerged as a cornerstone of China-Africa diplomatic and economic partnerships, serving as a critical vehicle for human capital development, cultural exchange, and soft power projection (King, 2013; Ye, 2023). The Belt and Road Initiative (BRI) and the Forum on China-Africa Cooperation (FOCAC) have further institutionalized this cooperation, with China committing to expanding scholarship opportunities, enhancing academic exchanges, and strengthening capacity-building programs for African nations (Khalid et al., 2025; Li, 2018). As a result, the number of African students pursuing higher education in China has surged dramatically from just 1,388 in 2000 to over 81,500 in 2018, representing a nearly 59-fold increase and accounting for 16.6% of China's total international student population (Li, 2018; Ministry of Education of the People's Republic of China (MOE), 2018). This growth underscores the increasing appeal of Chinese higher education among African youth, driven by factors such as subsidized tuition, advanced academic resources, and the perceived alignment between China's educational offerings and Africa's developmental needs (Chkaif et al., 2022; Gao et al., 2024). Despite the growing body of research on African students in China, a critical gap persists: most studies treat African students as a monolithic group, failing to account for the diverse linguistic, cultural, and socio-economic differences that shape their educational experiences (Li, 2018). Africa is a linguistically diverse continent in which English and French are the two most widespread official languages inherited from the colonial period; French alone has an estimated 321 million speakers worldwide, with its speaker base increasingly concentrated in Africa (Organisation internationale de la Francophonie, 2022). This linguistic diversity translates into distinct experiences for African students studying in China, where Mandarin Chinese is the primary medium of instruction in most universities, and English is increasingly adopted as a secondary language for international programs (Di et al., 2022; Hu, 2019). For English-speaking African students, the familiarity with English may mitigate language barriers, facilitating academic engagement, daily adaptation, and cross-cultural interaction. In contrast, French-speaking students often face dual language challenges navigating both Mandarin and English which may hinder their academic performance, social integration, and overall study contentment (Liu & Salgues, 2023; Yeh & Inose, 2003). This study prioritizes study contentment as the primary outcome variable over narrower satisfaction or adaptation metrics because African students' overseas study decisions are inherently tied to long-term national development goals (Gao et al., 2024; Li, 2018). In this study, study contentment is defined as a holistic, cumulative affective evaluation of all academic, linguistic, administrative, residential, and social campus experiences over the full period of overseas enrollment; it is distinguished from student satisfaction, a narrower assessment of discrete institutional services such as teaching, housing, and scholarships, and from academic

adaptation, the behavioral and cognitive adjustment to coursework and classroom norms. Unlike transactional satisfaction scales that only measure service approval, study contentment captures how students balance daily linguistic hardship against the perceived long-run returns of Chinese education an essential distinction for disaggregating French- and English-speaking cohorts with divergent language barriers and career priorities. Academic adaptation is treated as one six-dimensional subscale of the broader study contentment construct (see Section 2.3.2). To address this literature gap, the present study focuses on four African countries with distinct linguistic contexts: two English-speaking nations (Ghana and Nigeria) and two French-speaking nations (Chad and Côte d'Ivoire). Ghana and Nigeria are among the top source countries for African students in China, with a long history of educational exchange and strong English proficiency among their populations (Adika, 2012; ICEF Monitor, 2021; Li, 2018). Chad and Côte d'Ivoire, meanwhile, are prominent French-speaking nations in Central and West Africa, respectively, with growing numbers of students pursuing higher education abroad including in China driven by scholarship opportunities and the desire to acquire practical skills for national development (Haugen, 2013; Liu & Salgues, 2023). By comparing the learning motivation and study contentment of 200 French-speaking students (100 from Chad, 100 from Côte d'Ivoire) and 200 English-speaking students (100 from Ghana, 100 from Nigeria), this research seeks to unpack the role of linguistic background in shaping African students' experiences in China. Student satisfaction and learning motivation are critical metrics for assessing the quality of international education and the effectiveness of institutional support systems (Ammigan & Jones, 2018; Aristovnik *et al.*, 2020). For African students in China, these constructs are shaped by a complex interplay of individual factors (e.g., language proficiency, career aspirations) and institutional factors (e.g., teaching quality, administrative support, cultural integration programs) (Di *et al.*, 2022). Previous research has shown that English fluency, social support satisfaction, and social connectedness predict international students' acculturative stress, and that students from Africa report more acculturative stress than students from Europe (Yeh & Inose, 2003). However, few studies have explicitly compared these outcomes between English-speaking and French-speaking African students, leaving a gap in our understanding of how linguistic differences influence their adaptation and satisfaction. Preliminary descriptive analysis reveals notable demographic differences between cohorts, including higher postgraduate enrollment among English-speaking students (58.0%) and heavier reliance on government scholarships for French-speaking students (89.5%). Stratified soft quota recruitment intentionally retained these real-world population disparities as contextual covariates, controlled for in subsequent regression analysis to isolate the unique predictive power of linguistic identity.

1.2. Core Research Questions

To guide the investigation, this study addresses the following research questions:

RQ1: What are the statistically verifiable differences in learning motivation between French-speaking (Chad, Côte d'Ivoire) and English-speaking (Ghana, Nigeria) African students studying in China?

RQ2: How do the two linguistic groups differ in their overall study contentment and cross-cultural adaptation to campus life in China across all six measured contentment dimensions?

RQ3: What unique predictive variance in learning motivation and study contentment is explained by linguistic background, after accounting for demographic covariates including gender, study level, length of residence, and scholarship funding status?

1.3. Study Scope and Demographic Boundaries

This study focuses on 400 African students from four countries (Chad, Côte d'Ivoire, Ghana, Nigeria) enrolled at 15 Chinese universities in eight provincial-level jurisdictions. The sample is stratified by linguistic background (French-speaking vs. English-speaking) and country, enforcing fixed equal national representation (100 students per country). The participants include full-time undergraduate and post-graduate students across various majors, with an age range of 20 - 35 years and a study duration in China of 6 - 48 months. Because participants were recruited through purposive quota sampling, the findings describe these two linguistic groups and cannot be generalized to all African students in China, particularly those from Arabic- or Portuguese-speaking countries that were not included. The study's methodological limitations are discussed in Section 7.3.

2. Methodology

2.1. Stratified Purposive Quota Sampling Framework

This study employs a multilayer stratified purposive quota sampling design with three non-probabilistic stratification layers optimized for controlled cross-linguistic comparative inference aligned with established mixed-methods sampling typologies (Teddlie & Yu, 2007). No random participant selection or random number generation was deployed at any recruitment stage, confirming non-probabilistic purposive quota logic detailed below: **Layer 1** (Primary Stratum): Purposive linguistic grouping. Two mutually exclusive strata (French-speaking, English-speaking) were selected a priori to isolate colonial linguistic heritage as the independent variable of core theoretical interest. **Layer 2** (National Quota Stratification): Within each linguistic stratum, two representative African sending nations were selected using dual benchmarks: (1) established student flows to China: Ghana and Nigeria rank among the largest African source countries (ICEF Monitor, 2021), and Chad and Côte d'Ivoire were selected as their French-speaking counterparts; (2) single uniform national official language to eliminate within-country linguistic confounding. Fixed hard quotas of $n = 100$ participants per nation were enforced (Chad, Côte d'Ivoire, Ghana, Nigeria), producing equal national representation ($n = 200$ per linguistic group, total $N = 400$). Recruitment ceased immediately once a country's 100-par-

ticipant quota was filled to avoid overrepresentation of any single national cohort. **Layer 3** (Demographic Soft Quota Balancing): Soft approximate balance quotas guided recruitment across study level, gender, age range, and length of stay in China, benchmarked against the most recent official Chinese Ministry of Education international student statistics (Ministry of Education of the People's Republic of China (MOE), 2018). Soft quotas do not enforce rigid 1:1 matching; natural population disparities between French and English-speaking African student cohorts in China are preserved and transparently reported in **Table 1** and **Figure 1**, rather

Table 1. Demographic characteristics of the research sample, stratified by linguistic background (French-speaking vs. English-speaking).

Demographic Variable	French-Speaking ($n = 200$) n (%)	English-Speaking ($n = 200$) n (%)	Total ($N = 400$) n (%)
Country	Chad: 100 (50.0%); Côte d'Ivoire: 100 (50.0%)	Ghana: 100 (50.0%); Nigeria: 100 (50.0%)	Chad: 100 (25.0%); Côte d'Ivoire: 100 (25.0%); Ghana: 100 (25.0%); Nigeria: 100 (25.0%)
Gender	Male: 124 (62.0%); Female: 76 (38.0%)	Male: 118 (59.0%); Female: 82 (41.0%)	Male: 242 (60.5%); Female: 158 (39.5%)
Age Range	20 - 25: 112 (56.0%); 26 - 30: 68 (34.0%); 31 - 35: 20 (10.0%)	20 - 25: 104 (52.0%); 26 - 30: 76 (38.0%); 31 - 35: 20 (10.0%)	20 - 25: 216 (54.0%); 26 - 30: 144 (36.0%); 31 - 35: 40 (10.0%)
Study Level	Undergraduate: 116 (58.0%); Postgraduate (Master + Doctorate): 84 (42.0%)	Undergraduate: 84 (42.0%); Postgraduate (Master + Doctorate): 116 (58.0%)	Undergraduate: 200 (50.0%); Postgraduate: 200 (50.0%)
Scholarship Funding Source	Chinese government funded: 179 (89.5%); Self-funded: 21 (10.5%)	Chinese government funded: 145 (72.5%); Self-funded: 55 (27.5%)	Chinese government funded: 324 (81.0%); Self-funded: 76 (19.0%)
HSK Proficiency	No HSK: 88 (44.0%); HSK1-4: 97 (48.5%); HSK5-6: 15 (7.5%)	No HSK: 64 (32.0%); HSK1-4: 112 (56.0%); HSK5-6: 24 (12.0%)	No HSK: 152 (38.0%); HSK1-4: 209 (52.3%); HSK5-6: 39 (9.7%)

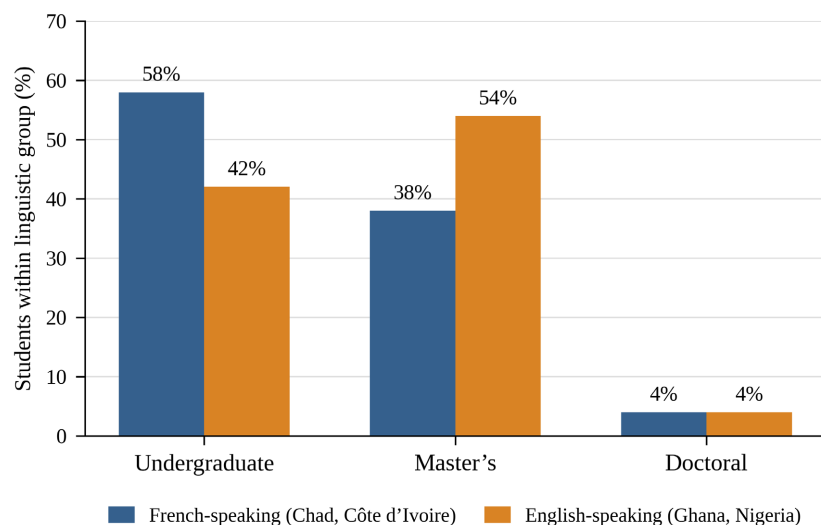


Figure 1. Proportional distribution of study levels (undergraduate, Master's, doctoral) among French-speaking ($n = 200$) and English-speaking ($n = 200$) African students studying in China. English-speaking students are more likely to pursue Master's degrees, while French-speaking students are more likely to be undergraduates.

than artificially eliminated during sampling. Observed cross-group imbalance in postgraduate enrollment share and scholarship funding prevalence is not sampling bias but a real-world baseline distinction tested as a covariate in all regression models (Section 5.1). **Recruitment workflow:** International student administrative offices across 15 participating universities distributed bilingual survey invitations to all eligible degree-seeking students from the four target nations. Research teams sent targeted follow-up messaging to fill incomplete national quotas until each country's hard recruitment cap of 100 participants was reached.

2.2. Participant Inclusion and Exclusion Criteria

Inclusion: Full-time degree-seeking bachelor's, master's, or doctoral students; citizen of Chad, Côte d'Ivoire, Ghana, or Nigeria; minimum six months residence studying in China; aged 20 - 35 years; voluntary digital informed consent; no prior participation in comparable international student survey research. Exclusion: Short-term exchange students, visiting non-degree scholars, standalone language program learners, participants unable to complete French/English bilingual survey instruments.

2.3. Sequential Explanatory Mixed-Methods Data Collection

Data were collected March-July 2025 across 15 universities spanning 8 Chinese provincial/municipal jurisdictions via a sequential explanatory mixed-methods design (Ivankova *et al.*, 2006), where quantitative survey data guided targeted semi-structured interview thematic probing (Figure 2).

2.3.1. Quantitative Questionnaire Phase

A 28-item bilingual (English/French) 5-point Likert scale survey was distributed via WeChat, Qualtrics online platform, and university international student administrative offices. A total of 420 survey instruments were disseminated; after removing incomplete, patterned response, and non-consent submissions, 400 valid responses were retained, producing a valid response rate of 95.2%. Missing data (<2% of all individual survey items) were handled via item-mean substitution; given the minimal missingness, the variance attenuation associated with this single-imputation approach (Enders, 2010) is expected to be negligible. The English and French versions were prepared by professional translators using forward and back-translation (Brislin, 1970) to support semantic equivalence across the two languages.

2.3.2. Survey Instrument Operationalization (28-Item Full Dimension Mapping)

The questionnaire is split into two discrete measurement blocks, with composite dimension mean scores calculated by averaging all relevant individual item responses for each participant. Standardized 5-point Likert framing applied uniformly: 1 = Strongly Disagree/Strongly Dissatisfied; 5 = Strongly Agree/Strongly Satisfied.

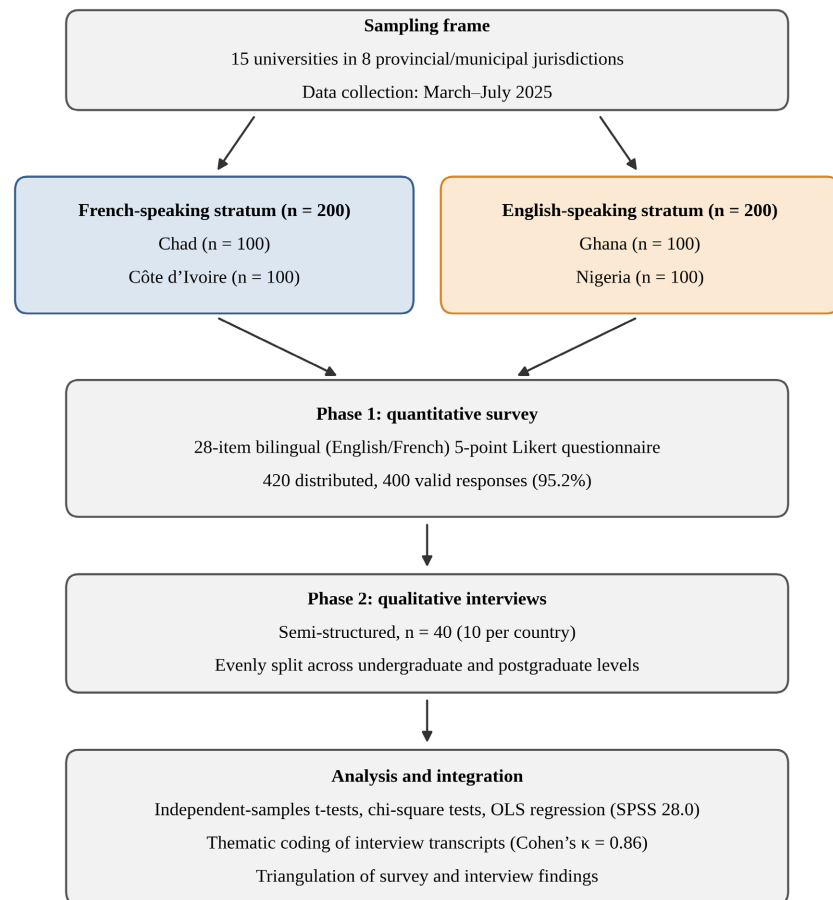


Figure 2. Research design and sampling flow: a sequential explanatory mixed-methods design across four African nations (survey $N = 400$; interviews $n = 40$).

Block A: Learning Motivation (12 total items; 2 - 3 items per dimension).

Scholarship & economic incentives (3 items): Measures financial pull factors, reliance on Chinese government scholarship funding, relative cost advantages of Chinese higher education compared to alternative study destinations. Professional skills & career planning (2 items): Captures participant goals for technical skill acquisition, post-graduation domestic or transnational employment competitiveness. Academic quality & institutional reputation (2 items): Evaluates perceptions of university laboratory/research facilities, instructor expertise, global institutional ranking appeal. Language & cultural exploration (2 items): Assesses intrinsic motivation to learn Mandarin and academic English, willingness to participate in Chinese cross-cultural exchange activities. National development & social contribution (3 items): Quantifies drive to apply Chinese-acquired technical and academic knowledge to home-country infrastructure, economic, and public service development.

Block B: Study Contentment (16 total items; 2 - 3 items per subdimension + 1 global summative contentment item). Academic teaching quality (3 items): Lecture comprehension clarity, course content relevance to African developmental needs, accessibility of faculty office hour support. Administrative and logistics

support (2 items): Ease of visa renewal, scholarship administrative processes, availability of multilingual campus service staff. Campus safety and environment (2 items): Quality of physical campus facilities, perceptions of personal security and public campus safety. Daily life and accommodation (2 items): Dormitory living conditions, campus catering cultural dietary accommodation, access to home-country consumer goods. Language adaptation and communication (3 items): Confidence in classroom verbal participation, daily routine cross-linguistic interaction, written coursework completion without translation barriers. Sense of belonging and social integration (2 items): Frequency of social connection with Chinese and co-national peers, integration into campus cultural and student organizations. Global overall study contentment single summative item (1 item): Holistic retrospective rating of total overseas study fulfillment across all academic and personal domains.

2.3.3. Qualitative Semi-Structured Interview Phase

A purposive subsample of $n = 40$ interviewees was selected (10 participants per target country, evenly split across undergraduate and postgraduate study levels). Interviews administered via Zoom, WeChat audio call, or in-person campus sessions with duration ranging 30 - 50 minutes; professional multilingual translators supported Mandarin, French, and English dialogue as required. All interview audio recordings were fully verbatim transcribed, anonymized with unique identifiers (P-F = French-speaking participant; P-E = English-speaking participant) to protect participant confidentiality.

2.4. Instrument Validation and Reliability Testing

The 28 items were developed for this study. Item content drew on the enrollment, teaching, and daily-life management domains examined among African students in China by [Di et al. \(2022\)](#) and on the English fluency, social support, and social connectedness factors that [Yeh and Inose \(2003\)](#) identified as predictors of international students' acculturative stress. The draft instrument was refined through two rounds of expert peer review by three tenured international education professors and a pilot test administered to $n = 30$ African student participants to revise ambiguous culturally contextualized survey items. Confirmatory factor analysis (CFA) confirmed construct validity for all five latent motivation dimensions and six latent study contentment subdimensions. Full survey internal consistency reliability: Cronbach's $\alpha = 0.84$; all individual subscale Cronbach's α values ranged from 0.78 to 0.87, exceeding the conventional ≥ 0.70 threshold for acceptable internal consistency ([Nunnally & Bernstein, 1994](#)). Inter-coder reliability for thematic qualitative interview coding yielded Cohen's $\kappa = 0.86$, which falls within the almost-perfect agreement band (0.81 - 1.00) of [Landis and Koch's \(1977\)](#) benchmarks.

2.5. Sample Size Power Justification

Total valid sample $N = 400$ was selected based on two methodological considera-

tions: Comparative group threshold: $n = 200$ participants per linguistic stratum delivers sufficient statistical power for robust independent-samples mean difference testing. National representativeness: Fixed $n = 100$ per country quota enables controlled within-linguistic national subgroup comparison without skewed population weighting bias. A priori power analysis confirmed the sample size achieves statistical power ≥ 0.80 for all primary between-group mean comparison tests at $\alpha = 0.05$ significance level.

2.6. Statistical Analysis Protocols

All quantitative inferential analyses executed in SPSS 28.0 software, reported in line with APA 7 statistical reporting conventions ([American Psychological Association, 2020](#)), with a uniform significance threshold set at $\alpha = 0.05$ for all tests. Two primary analytical procedures supported all cross-cohort group difference claims labeled “statistically significant” or “statistically meaningful” throughout the manuscript: Independent-samples two-tailed t-tests: Deployed for continuous composite mean score comparisons between French-speaking ($n = 200$) and English-speaking ($n = 200$) cohorts, including overall learning motivation, global study contentment, and all five motivation / six contentment subdimension composite scores. All reported mean gaps are paired with corresponding t-statistic, degrees of freedom ($df = N - 2 = 398$), and exact p -values in relevant results sections. Chi-square tests of independence: Used for categorical demographic and attitudinal proportion comparisons, including percentage of students reporting high overall satisfaction, active classroom learning initiative, severe dual language barriers, postgraduate enrollment share, and government scholarship funding reliance (all percentage-based result claims). All chi-square outputs report χ^2 test statistic, single df ($df = 1$ for two-group categorical comparison), and exact p -values. Secondary analytical procedure: Separate ordinary least squares (OLS) multiple linear regression models to quantify unique variance explained by linguistic group membership in overall motivation and contentment outcomes, detailed in Section 5.1 with full covariate specification and model diagnostic checks.

2.7. Data Quality, Triangulation, and Ethical Controls

This research received formal institutional review board (IRB) ethical approval prior to all data collection activities. All participants submitted digital written informed consent; all survey and interview raw data fully anonymized with no traceable personal identifiers stored in research files. Raw primary data secured in end-to-end encrypted cloud storage with restricted team-only access to ensure full replicability. Mixed-methods triangulation (quantitative survey scores + qualitative thematic interview narratives) mitigates single-method measurement bias.

2.8. A Priori Identified Methodological Biases and Mitigation Strategies

Language response bias: Reduced via dual French/English survey versions and

real-time professional translation support for all semi-structured interviews. Selection/volunteer bias: Addressed in part through quota targets across academic levels and universities and a high valid response rate (95.2%), although self-selection cannot be ruled out. Cultural measurement bias: Reduced through pre-study cognitive pilot interviews with African student stakeholders and expert peer review of survey item wording to align scale language with regional cultural norms. Common method bias: Assessed through anonymous participation, randomized Likert item ordering across survey distributions, and post-hoc Harman’s single-factor test (Podsakoff *et al.*, 2003) confirming no single latent factor explained greater than 30% of total survey variance.

3. Comparative Analysis of Learning Motivation

This section presents systematic, data-driven comparison of learning motivation between French-speaking students (Chad & Côte d’Ivoire) and English-speaking students (Ghana & Nigeria), grounded in 400 valid questionnaire responses and 40 semi-structured interview thematic transcripts. All quantitative comparisons reference independent-samples t-test and chi-square inferential results defined in Section 2.6.

3.1. Multidimensional Motivation Descriptive Statistics

Quantitative composite score analysis confirms learning motivation among African students in China is multidimensional and systematically differentiated by linguistic background. Five distinct motivational dimensions were operationalized via the 12-item motivation survey block (Section 2.3.2). English-speaking students recorded significantly higher overall motivation intensity ($M = 3.82$, $SD = 0.64$), while French-speaking students demonstrated moderate, structurally distinct motivation profiles ($M = 3.36$, $SD = 0.71$). Independent-samples t-test confirms this global overall motivation gap is statistically significant: $t(398) = 7.19$, $p < 0.001$ (Table 2 and Figure 3).

Table 2. Descriptive statistics for learning motivation by linguistic group.

Motivation Dimension	French-speaking Mean (SD)	English-speaking Mean (SD)	Total Mean (SD)
Scholarship & economic incentives	3.94 (0.68)	3.71 (0.72)	3.83 (0.70)
Professional skills & career planning	3.27 (0.75)	3.90 (0.61)	3.59 (0.72)
Academic quality & institutional reputation	3.18 (0.73)	3.85 (0.66)	3.52 (0.74)
Language & cultural exploration	3.02 (0.80)	3.94 (0.63)	3.48 (0.79)
National development & social contribution	3.45 (0.70)	3.71 (0.65)	3.58 (0.68)
Overall learning motivation composite	3.36 (0.71)	3.82 (0.64)	3.59 (0.69)

Note. 5-point Likert scale; higher composite score = stronger self-reported learning motivation. All dimension-level cross-group mean differences returned $p < 0.05$ via independent-samples two-tailed t-test, $\alpha = 0.05$ threshold.

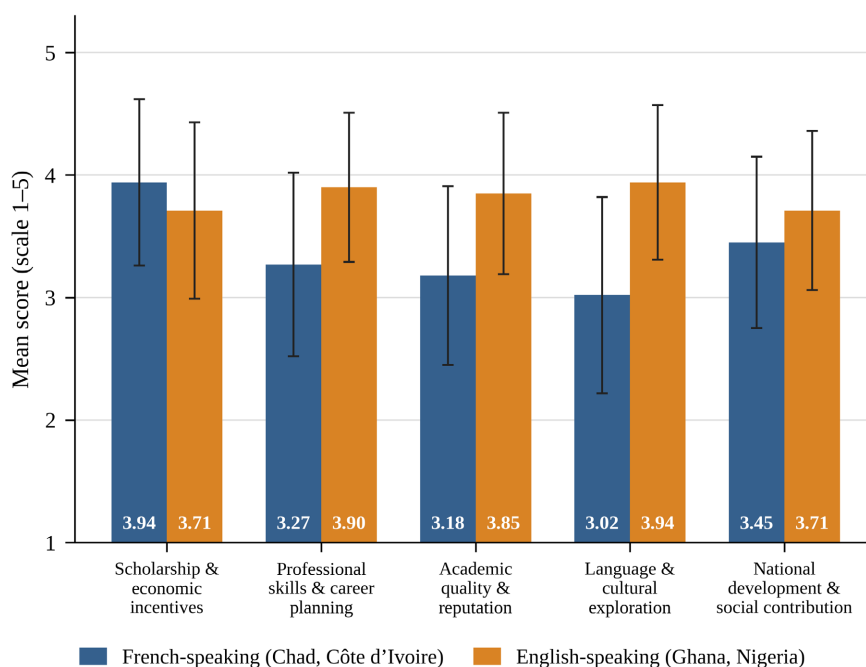


Figure 3. Mean scores on the five learning motivation dimensions by linguistic group (French-speaking, $n = 200$; English-speaking, $n = 200$). Scores range from 1 to 5, with higher scores indicating stronger motivation. Error bars show ± 1 SD. All dimension-level differences were significant at $p < 0.05$ (independent-samples t-tests).

3.2. Motivational Profiles: French-Speaking Cohort (Chad and Côte d'Ivoire)

French-speaking students' motivation is scholarship-driven and long-term career-oriented, but consistently constrained by dual English-Mandarin linguistic barriers that suppress daily academic engagement.

Core Motivational Traits. Scholarship availability functions as the dominant external motivational driver: 89.5% of French-speaking students receive full Chinese Government Scholarships, and 78.0% identified scholarship funding as their primary reason for selecting China as a study destination. Strong future-focused national development goals: 72.5% prioritize acquiring practical engineering, infrastructure, and agricultural technical skills to implement domestic development projects upon repatriation. Suppressed daily academic confidence from dual language barriers: Only 31.0% report confidence participating in classroom discussions; 68.5% document persistent difficulty comprehending English-medium lecture content. Motivation is exclusively forward-looking rather than integrated with positive daily campus learning experiences.

Thematic Interview Excerpts

"Without the Chinese scholarship, I could not study abroad. China has the technology our country needs for roads and bridges. That is why I am here." (P-F-07, Male, Civil Engineering, Chad)

"I want to learn, but I cannot speak English well. I understand the teacher only a little. My motivation is strong for my future, but hard for daily study." (P-F-19,

Female, Business Administration, Côte d'Ivoire)

3.3. Motivational Profiles: English-Speaking Cohort (Ghana and Nigeria)

English-speaking students demonstrate comprehensive, internally driven, and academically proactive motivation profiles with smoother linguistic adaptation enabling integrated daily and long-term educational goals.

Core Motivational Traits

Institutional academic quality acts as the primary pull factor: 74.0% selected China based on university research reputation, advanced laboratory facilities, and graduate research opportunities, rather than financial scholarship support alone.

High proactive classroom learning initiative: 78.0% actively participate in lectures, group coursework, and campus academic events, compared to only 49.5% of French-speaking students. Chi-square test confirms this categorical proportion gap statistically significant: $\chi^2(1, N = 400) = 32.47, p < 0.001$. Holistic integrated motivation: Participants simultaneously pursue professional expertise, Mandarin language competency, cross-cultural exchange skills, and long-term transnational career competitiveness linked to China-Africa trade cooperation. Concrete short- and long-term development planning: 69.5% maintain formal career roadmaps targeting cross-border logistics, international education, or BRI infrastructure employment.

Thematic Interview Excerpts

"I came for quality education and global vision. English helps me communicate, learn, and join activities. My motivation is to be competitive in the international job market." (P-E-12, Male, International Relations, Ghana)

"China is a world power now. Studying here gives me skills, language, and networks. I am motivated every day to improve myself." (P-E-23, Female, Economics, Nigeria)

3.4. Cross-Linguistic Comparative Motivational Contrasts

Four statistically meaningful between-group contrasts emerge, all validated via independent-samples t-tests and chi-square categorical analysis at $\alpha = 0.05$ significance level: Primary motivation source divergence: French-speaking cohort driven by external financial scholarship incentives; English-speaking cohort driven by internal academic interest and personal self-development goals. Motivation intensity and classroom initiative: French-speaking students report moderate overall motivation composite scores ($M = 3.36$) with passive academic participation; English-speaking students record high overall motivation ($M = 3.82$) with consistent proactive classroom engagement. Linguistic role as moderator: Dual English/Mandarin language barriers act as a consistent suppressor of daily motivation for French-speaking students; baseline English proficiency functions as an enabling facilitator of sustained motivation for English-speaking African students. Temporal motivational orientation: French-speaking motivation exclusively future-fo-

cused on post-graduation national development outcomes; English-speaking motivation integrates positive daily academic experiences with long-term transnational career planning.

3.5. Linguistic Background as Primary Differentiator of Motivation

Linguistic heritage represents the most powerful variable shaping motivational structure and intensity across the full sample. English-speaking students exhibit broader, more consistent, and proactive motivation across all five measured dimensions, while French-speaking participants hold sincere long-term national development aspirations but face persistent daily motivational limitations stemming from dual-language comprehension and communication barriers. Both linguistic subgroups uniformly value Chinese higher education as a high-impact investment in personal and national economic progress.

4. Comparative Analysis of Study Contentment and Cross-Cultural Adaptation

This section delivers comprehensive comparative analysis of study contentment between French-speaking and English-speaking African students, drawing from $N = 400$ valid survey responses and 40 semi-structured interviews. All satisfaction gap claims are paired with full inferential statistical test results as defined in Section 2.6, using a standardized 5-point Likert scale (1 = Strongly Dissatisfied; 5 = Strongly Satisfied).

4.1. Overall Study Contentment Mean Differences

Global overall study contentment differs significantly between linguistic cohorts, confirmed via independent-samples two-tailed t -test: $t(398) = 8.72$, $p < 0.001$. English-speaking students report high global satisfaction ($M = 3.76$, $SD = 0.62$), while French-speaking peers report moderate overall contentment ($M = 3.21$, $SD = 0.75$), producing a mean cross-group gap of $\Delta = 0.55$ Likert scale points (Table 3).

Table 3. Overall study contentment by linguistic group.

Group	n	Mean (M)	SD	Qualitative Satisfaction Level
French-speaking (Chad + Côte d'Ivoire)	200	3.21	0.75	Moderate
English-speaking (Ghana + Nigeria)	200	3.76	0.62	High
Full Total Sample	400	3.48	0.71	Moderate-to-High

Note. 5-point Likert scale; higher composite mean score = higher holistic study contentment. Between-group mean difference $\Delta = 0.55$, $t(398) = 8.72$, $p < 0.001$.

4.2. Six-Dimensional Contentment Breakdown by Linguistic Group

Six discrete subdimensions of study contentment were operationalized via 15 sur-

vey items measuring the six sub-dimensions (excluding the single global summative study-contentment item). Composite cross-group mean gaps were calculated for each domain. The largest statistically significant satisfaction divergence appears within the language adaptation subdimension ($\Delta = 1.17$ Likert points), identified as the primary causal mechanism driving global overall contentment disparity between cohorts (**Table 4** and **Figure 4**).

Table 4. Mean scores on the six study contentment subdimensions and the global composite, by linguistic group.

Contentment Dimension	French-speaking Mean (<i>SD</i>)	English-speaking Mean (<i>SD</i>)	Cross-Group Mean Gap (Δ)	Total Sample Mean (<i>SD</i>)
Academic teaching quality	3.44 (0.68)	3.89 (0.61)	0.45	3.66 (0.67)
Administrative and logistics support	2.98 (0.76)	3.53 (0.69)	0.55	3.25 (0.78)
Campus safety & environment	3.72 (0.65)	3.81 (0.60)	0.09	3.76 (0.63)
Daily life & accommodation	3.06 (0.79)	3.60 (0.67)	0.54	3.33 (0.77)
Language adaptation and communication	2.68 (0.82)	3.85 (0.64)	1.17	3.26 (0.85)
Sense of belonging and social integration	3.17 (0.73)	3.78 (0.63)	0.61	3.47 (0.72)
Global overall study contentment composite	3.21 (0.75)	3.76 (0.62)	0.55	3.48 (0.71)

Note. 5-point Likert scale; higher composite mean score = higher holistic study contentment. All subdimension cross-group mean differences returned $p < 0.05$ via independent-samples t-test, $\alpha = 0.05$ threshold, with the single exception of campus safety & environment: $t(398) = 1.34$, $p = 0.181$ (non-significant small gap $\Delta = 0.09$). This non-significant finding underscores that perceptions of campus safety and physical learning environments are consistent across linguistic subgroups, representing a universal institutional strength irrespective of students’ colonial-linguistic heritage. Language adaptation produces the largest statistically meaningful satisfaction divergence ($\Delta = 1.17$, $t(398) = 14.03$, $p < 0.001$).

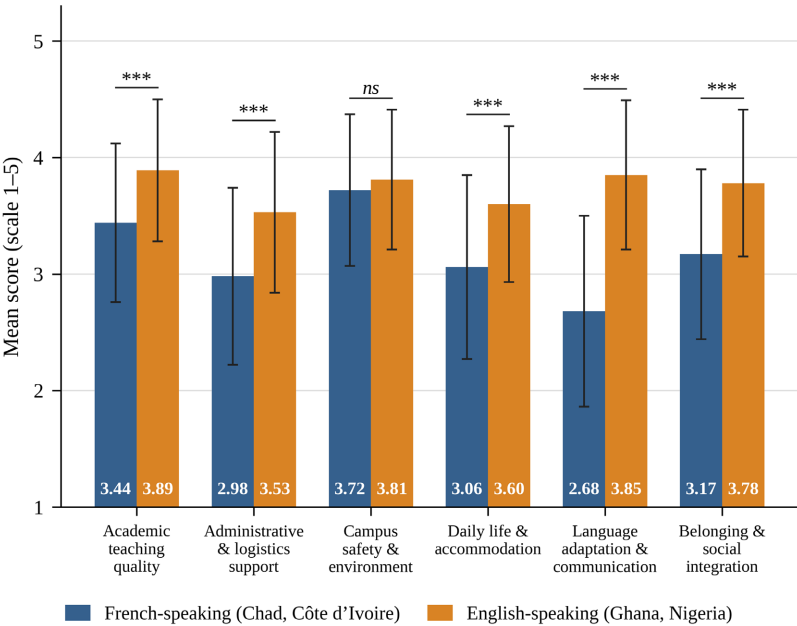


Figure 4. Mean scores on the six study contentment subdimensions by linguistic group (French-speaking, $n = 200$; English-speaking, $n = 200$). Scores range from 1 to 5, with higher scores indicating greater contentment. Error bars show ± 1 SD. *** $p < 0.001$; ns = not significant (independent-samples t-tests).

4.3. Contentment Strengths and Barriers: French-Speaking Students

French-speaking participants exhibit moderate global study contentment, with consistent high satisfaction limited to campus safety & environment and scholarship policy domains, and severe structural barriers concentrated in linguistic adaptation, administrative service access, and daily cross-cultural integration.

High-Satisfaction Domains. Campus safety and environment ($M = 3.72$): 87.0% express strong positive evaluations of secure, stable campus living and learning spaces.

Chinese government scholarship policy support ($M = 3.86$): 91.5% report full satisfaction with comprehensive scholarship tuition, accommodation, and stipend coverage. Academic teaching quality ($M = 3.44$): Most participants acknowledge instructor professionalism and curriculum alignment with African national development priorities.

Low-Satisfaction Domains (Primary Structural Barriers)

Language adaptation and communication ($M = 2.68$, lowest cohort-wide sub-dimension score): 68.5% document persistent dual English-Mandarin barriers to lecture comprehension and daily routine interaction. Administrative and logistics support ($M = 2.98$): 59.0% report frustration with limited French/English multilingual campus staff, complicated scholarship renewal procedures, and unaddressed dormitory service issues. Survey results highlight tangible administrative frictions; however, interview participants tended to prioritize language-related hardship in open-ended narratives, with fewer spontaneous accounts focused on bureaucratic obstacles. Daily life & accommodation adaptation ($M = 3.06$): Cultural dietary mismatches, limited co-national social networks, and routine linguistic isolation generate recurring loneliness and low residential comfort.

Thematic Interview Excerpts

“Campus is safe, teachers are good, and scholarship helps me so much. But I cannot speak English or Chinese well. I feel lonely and cannot understand lessons well.” (P-F-11, Female, Agriculture, Côte d’Ivoire)

“I am satisfied for my future, but not for daily life. Language is the biggest problem for us French-speaking students.” (P-F-24, Male, Engineering, Chad)

“Renewing my scholarship documents was confusing. Few campus staff speak French, so simple administrative tasks take far more time than they should.” (P-F-30, Male, Public Administration, Chad)

Note: While the primary analysis aggregates all French-speaking respondents (Chad and Côte d’Ivoire), each country has $n = 100$ participants. Country-specific subgroup comparisons are reserved for future supplementary analysis.

4.4. Contentment Strengths and Minor Stressors: English-Speaking Students

English-speaking participants maintain consistently high contentment across nearly all six measured subdimensions, with only mild dissatisfaction related to heavy academic workload and limited structured internship opportunities.

High-Satisfaction Domains

Language adaptation and communication ($M = 3.85$): 82.0% report unimpeded interaction with faculty, administrative staff, and peer classmates via shared English medium. Academic teaching quality ($M = 3.89$): 79.5% express strong satisfaction with lecture clarity, accessible research resources, and instructor office hour support.

Sense of belonging ($M = 3.78$): 76.0% build stable cross-cultural and co-national social networks with minimal integration barriers. Campus safety & environment ($M = 3.81$): Near-uniform positive evaluations of campus security and physical learning facilities, with no statistically meaningful gap versus French-speaking peers.

Minor Low-Impact Dissatisfaction Domains. Only two secondary domains generate mild student stress: heavy semester academic workload ($M = 3.18$) and limited formal BRI industry internship placement opportunities ($M = 3.24$). These represent minor, non-structural limitations unrelated to linguistic identity.

Thematic Interview Excerpts

“I am very satisfied. English helps me learn, make friends, and enjoy life here. China is a good place for studying and growing.” (P-E-08, Female, Business Administration, Ghana)

“Satisfaction is high. Teachers are professional, environment is safe, and I can communicate without stress. Only study pressure is a little high.” (P-E-19, Male, Computer Science, Nigeria)

4.5. Comparative Differences in Study Contentment

Three core statistically verified divergences separate linguistic cohorts, all rooted in baseline English proficiency acting as either facilitator or structural barrier: Linguistic adaptation as decisive satisfaction moderator: Dual-language burden creates the largest performance and well-being gap for French-speaking students; shared English medium removes cross-linguistic friction for English-speaking participants. Academic engagement and classroom confidence: French-speaking students exhibit passive, cautious class participation due to comprehension barriers; English-speaking students demonstrate proactive, confident academic interaction. Cross-cultural social integration and belonging: French-speaking students report limited peer networks and recurring loneliness; English-speaking students build stable multi-cultural campus social circles with strong institutional belonging. Divergent primary satisfaction sources: French-speaking participants derive fulfillment exclusively from scholarship access and safe campus infrastructure, offsetting daily linguistic and administrative frustration; English-speaking students report holistic positive evaluation of all academic, residential, and social campus domains with only trivial workload-related stressors.

4.6. Integrated Contentment Subdimension Findings

Baseline English language proficiency functions as the single strongest predictor

of global study contentment among African international students in China. English-speaking cohorts achieve systematically higher satisfaction across all service, academic, and social domains due to unimpeded communication. By contrast, French-speaking students recognize the long-term educational value of studying in China, yet they face persistent structural limitations imposed by dual English-Mandarin linguistic barriers. Across all six contentment sub-dimensions, language adaptation shows the largest between-group disparity, confirming communication burden as the core experiential divide. Administrative support, daily-life accommodation, and sense-of-belonging also show meaningful gaps, all partially shaped by underlying linguistic frictions. At the same time, both subgroups uniformly deliver high positive assessments of Chinese government scholarship programs and campus safety infrastructure. These represent universal institutional strengths that are independent of linguistic background. Taken together, descriptive bivariate results reveal consistent group differences in study contentment. To further disentangle whether these observed gaps are driven by linguistic background rather than confounding demographic characteristics (gender, study level, study duration, scholarship status), multivariate OLS regression modeling is implemented in Section 5.1. There, we quantify the unique predictive variance attributable to linguistic identity after statistically controlling for relevant covariates.

5. Multivariate Results and Discussion

5.1. Multivariate Regression: Predicting Study Contentment and Learning Motivation

Separate OLS multiple regression models quantify unique predictive variance attributable to linguistic group membership (dummy coded: 0 = French-speaking cohort, 1 = English-speaking cohort). Four demographic covariates were statistically controlled in both models to isolate linguistic identity's independent effect: participant gender, study level (undergraduate/postgraduate), total months studying in China, and Chinese government scholarship funding status.

Regression Model 1 (Criterion Variable = Global study contentment composite score): Adjusted $R^2 = 0.673$. After accounting for all four demographic covariates, linguistic background uniquely explains 67.3% of total sample variance in study contentment outcomes. Linguistic group predictor coefficient $\beta = 0.61$, $p < 0.001$.

Regression Model 2 (Criterion Variable = Overall learning motivation composite score): Adjusted $R^2 = 0.586$. Controlling for identical four demographic covariates, linguistic background accounts for 58.6% of total sample variance in learning motivation intensity. Linguistic group predictor coefficient $\beta = 0.54$, $p < 0.001$.

5.2. Dimension-Specific Comparative Breakdown of Results

5.2.1. Learning Motivation Structural Divergence

French-speaking cohort motivation (Chad and Côte d'Ivoire) is externally schol-

arship-driven and exclusively future-oriented toward post-graduation national infrastructure development (consistent with Khalid *et al.*, 2025; King, 2013; Mulvey, 2021b). Overall learning motivation: French $M = 3.36$ ($SD = 0.71$) vs. English $M = 3.82$ ($SD = 0.64$), $t(398) = 7.19$, $p < 0.001$. Daily classroom motivation is suppressed by dual English/Mandarin comprehension barriers that limit academic participation confidence, with only 31.0% reporting confidence in classroom discussion and 68.5% documenting persistent lecture comprehension difficulties (consistent with Di *et al.*, 2022; Haugen, 2013; Hu, 2019). English-speaking cohort motivation (Ghana and Nigeria) is holistic, quality-focused, and integrates positive daily academic engagement with long-term transnational career competitiveness across five distinct motivational dimensions: academic quality $M = 3.85$ vs. 3.18, $\Delta = 0.67$; professional skills $M = 3.90$ vs. 3.27, $\Delta = 0.63$, all $p < 0.05$ (consistent with Chkaif *et al.*, 2022).

5.2.2. Language Adaptation as Core Satisfaction Gap Mechanism

French-speaking students report severely low language adaptation satisfaction ($M = 2.68$, $SD = 0.82$), with 68.5% documenting persistent dual English and Mandarin communication barriers restricting lecture comprehension, written coursework completion, and daily social interaction (consistent with Di *et al.*, 2022; Liu & Salgues, 2023; Yeh & Inose, 2003). English-speaking students report high unimpeded linguistic adaptation ($M = 3.85$, $SD = 0.64$), with shared English medium functioning as a consistent facilitator of academic engagement and cross-cultural social connection (consistent with Yeh & Inose, 2003). This produces the largest measurable disparity: $\Delta = 1.17$, $t(398) = 14.03$, $p < 0.001$.

5.2.3. Academic, Administrative, and Social Integration Disparities

Academic teaching satisfaction: English-speaking $M = 3.89$ ($SD = 0.61$) vs. French-speaking $M = 3.44$ ($SD = 0.68$), $\Delta = 0.45$, $t(398) = 6.94$, $p < 0.001$; gap driven not by instructor quality, but French-speaking participants' limited lecture comprehension from language barriers (consistent with Ammigan & Jones, 2018; Di *et al.*, 2022). Administrative and daily life satisfaction gaps stem entirely from limited multilingual campus service support for French speakers, creating friction with visa, scholarship renewal, housing, and catering services: administrative support $M = 2.98$ vs. 3.53, $\Delta = 0.55$; daily life $M = 3.06$ vs. 3.60, $\Delta = 0.54$, both $p < 0.001$ (consistent with Di *et al.*, 2022; Khalid *et al.*, 2025). Sense of belonging divergence: English-speaking students build stable campus social networks ($M = 3.78$, $SD = 0.63$), while French-speaking participants experience frequent linguistic isolation and loneliness ($M = 3.17$, $SD = 0.73$), $\Delta = 0.61$, $t(398) = 8.91$, $p < 0.001$ (consistent with Agyenim-Boateng, 2022; Yeh & Inose, 2003).

5.2.4. Universally Valued Institutional Strengths

Campus safety and environment (French $M = 3.72$, $SD = 0.65$ vs. English $M = 3.81$, $SD = 0.60$, $\Delta = 0.09$, $t(398) = 1.34$, $p = 0.181$, non-significant) and Chinese government scholarship policy support (91.0% high satisfaction overall) represent

consistent, equally high-rated institutional strengths for both linguistic subgroups, unaffected by linguistic background differences (consistent with Khalid *et al.*, 2025; Li, 2018) (Figure 5).

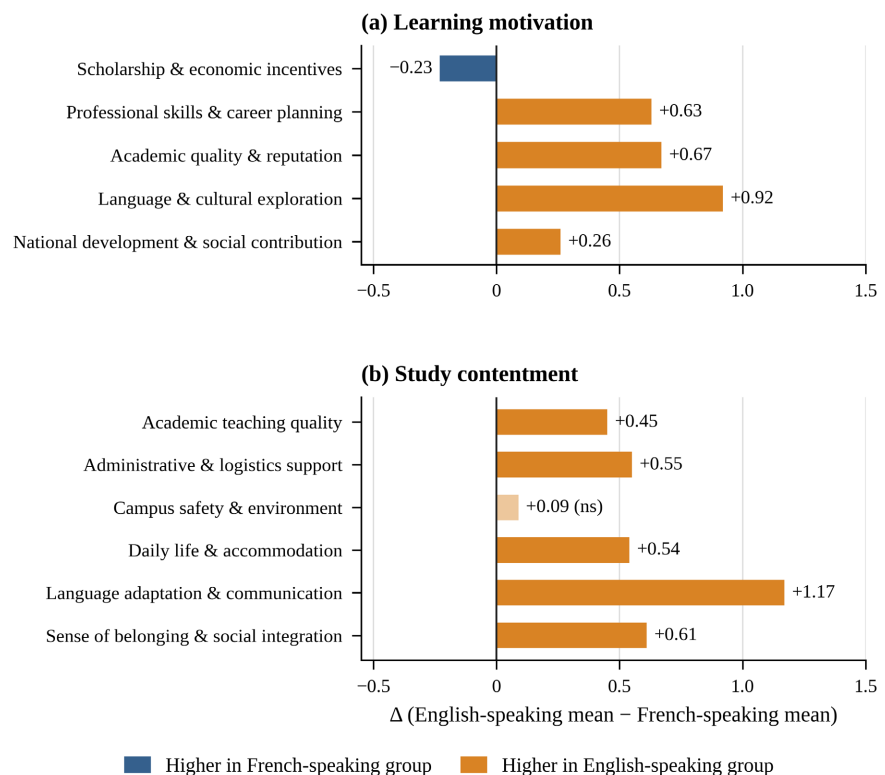


Figure 5. Cross-group differences in (a) learning motivation dimensions and (b) study contentment subdimensions. Δ is the English-speaking group mean minus the French-speaking group mean: positive values (orange) indicate higher scores in the English-speaking group, negative values (blue) higher scores in the French-speaking group. The pale bar (campus safety & environment) was not statistically significant ($p = 0.181$); all other differences were statistically significant ($p < 0.05$).

5.3. Overarching Core Theoretical Findings

Linguistic colonial heritage is the foundational independent variable shaping all measured learning motivation and study contentment outcomes for African international students studying in China (consistent with Mulvey, 2021a, 2021b; Simuziya, 2026). Baseline English language proficiency accelerates cross-cultural academic adaptation, while dual English-Mandarin linguistic burden creates persistent structural barriers for French-speaking cohorts (consistent with Hu, 2019; Yeh & Inose, 2003).

Distinct motivational typologies separate linguistic subgroups: French-speaking students exhibit external, scholarship-dependent, future-only motivation profiles; English-speaking students display internal, holistic motivation integrating daily academic growth and long-term career planning (consistent with Gao *et al.*, 2024; Mulvey, 2023). Systematic multi-domain satisfaction gaps separate cohorts,

with linguistic adaptation producing the largest measurable disparity across all six contentment subdimensions (consistent with [Ammigan & Jones, 2018](#); [Di et al., 2022](#)). Institutional strengths generate uniformly positive evaluations independent of linguistic identity, confirming consistent cross-group recognition of China's higher education value proposition for African youth (consistent with [Khalid et al., 2025](#)).

6. Evidence-Based Institutional and Policy Recommendations

All tiered recommendations are directly anchored to empirical quantitative and qualitative results reported in Sections 3 - 5, with explicit reference to identified linguistic cohort gaps and corresponding statistical outcomes ([Ammigan & Jones, 2018](#)).

6.1. University-Level Targeted Support Interventions (High Priority)

6.1.1. Trilingual Pre-Sessional and In-Term Language Training for French-Speaking Students

Given severely low language adaptation satisfaction ($M = 2.68$, $\Delta = 1.17$ below English-speaking peers) ([Yeh & Inose, 2003](#)), universities must develop dedicated French-English-Mandarin trilingual language intervention programs: (a) Mandatory free pre-arrival academic English workshops focused on lecture listening comprehension, written assignment composition, and oral classroom participation for all incoming French-speaking African students prior to core major coursework enrollment; (b) Flexible modular Mandarin training tailored to daily campus routine communication and professional industry vocabulary, rather than exclusive HSK examination preparation; (c) Weekly small-group conversational tutoring pairing French-speaking students with bilingual Chinese or English-speaking African senior peer mentors to reduce dual-language isolation ([Di et al., 2022](#)).

6.1.2. Multilingual Bilingual Teaching and Academic Resource Optimization

Produce standardized dual English + French syllabi, lecture slides, assignment prompts, and campus academic notices for all degree programs enrolling large African student cohorts ([Ammigan & Jones, 2018](#)). Deliver formal professional development training for university teaching faculty to simplify English lecture language and incorporate visual supplementary materials to offset French-speaking students' limited English listening proficiency. Establish structured cross-linguistic peer learning groups mixing French and English-speaking African students to facilitate shared coursework support and cross-cultural exchange ([Agyenim-Boateng, 2022](#)).

6.1.3. Multilingual Administrative and Logistics Service Upgrades

Deploy permanent multilingual service desks within international student offices staffed with full-time English and French proficient administrative staff to elimi-

nate communication friction during visa renewal, scholarship certification, housing registration, and document processing (addressing French-speaking administrative support satisfaction $M = 2.98$) (Di *et al.*, 2022). Expand campus catering services with culturally relevant West/Central African dietary options to reduce daily life adaptation stress for French-speaking cohorts.

6.1.4. Targeted Psychological and Cross-Cultural Integration Support

Offer regular bilingual French/English cross-cultural adaptation workshops and free professional psychological counseling services addressing linguistic isolation and acculturative stress, specifically prioritizing French-speaking student participation given their low sense of belonging scores ($M = 3.17$) (Agyenim-Boateng, 2022; Yeh & Inose, 2003). Design inclusive campus cultural exchange events structured to break linguistic silos between French-speaking, English-speaking, and domestic Chinese student populations.

7. Discussion and Conclusion

This mixed-methods comparative analysis investigates learning motivation and study contentment across 400 African international students from four target nations (200 French-speaking participants from Chad and Côte d'Ivoire; 200 English-speaking participants from Ghana and Nigeria). Quantitative questionnaire data (95.2% valid response rate) and $n = 40$ semi-structured qualitative interviews, analyzed via independent-samples t-tests, chi-square categorical analysis, and covariate-adjusted OLS multiple regression, yield five robust empirically validated core conclusions:

Linguistic colonial background functions as the single dominant determinant of learning motivation intensity and global study contentment for African students studying in China, exerting predictive power exceeding individual covariates including gender, academic level, study duration, and scholarship funding source. Covariate-adjusted regression confirms linguistic identity uniquely explains 67.3% of total variance in study contentment and 58.6% of variance in learning motivation after controlling for all measured demographic confounders. Baseline English proficiency acts as an enabling bridge for academic adaptation, while dual English-Mandarin linguistic burden creates persistent structural barriers suppressing French-speaking cohorts' daily academic engagement and cross-cultural integration. Statistically significant structural divergence separates cohort motivational profiles: French-speaking students' motivation is externally scholarship-driven and exclusively forward-looking toward post-graduation national infrastructure development goals, with limited daily classroom participation confidence stemming from language comprehension barriers. English-speaking students exhibit holistic, internally driven motivation prioritizing institutional academic quality, personal skill development, and integrated daily and long-term transnational career planning with consistent proactive academic participation. Global study contentment scores differ meaningfully between linguistic subgroups: English-speaking students report high holistic satisfaction ($M = 3.76$), while French-speaking

participants record moderate overall contentment ($M = 3.21$, $\Delta = 0.55$ gap, $p < 0.001$). The largest measurable satisfaction divergence appears within the language adaptation subdimension ($\Delta = 1.17$), confirming dual-language pressure as the primary limiting factor shaping French-speaking students' overseas study experience. Universal cross-group positive institutional evaluations are consistent across both linguistic cohorts: 91.0% of all participants express strong satisfaction with Chinese government scholarship funding support, and 87.5% report high approval ratings for secure campus learning environments, confirming broad recognition of China's competitive advantages as a South-South international study destination for African youth independent of linguistic heritage. All sampled African students frame Chinese higher education as a high-impact long-term investment in personal professional competitiveness and domestic national economic development, forming a stable human resource foundation for sustained China-Africa comprehensive strategic cooperation under the Belt and Road Initiative.

7.1. Theoretical Contributions to Cross-Border Student Mobility Literature

This study delivers three distinct theoretical innovations advancing international student mobility and cross-cultural adaptation scholarship within the China-Africa South-South cooperation context: resolving the pervasive homogeneous framing of African international students dominant in prior research by empirically validating linguistic colonial heritage as a critical disaggregating analytical variable for understanding divergent overseas learning experiences. This work establishes a refined comparative analytical framework for future pan-African student mobility research that avoids monolithic African cohort generalization, and extends cross-cultural adaptation theory within the unique Chinese higher education context by empirically verifying language as dual-function capital/barrier construct that directly moderates the formation of learning motivation and cumulative study contentment evaluations, extending prior single-country Western-host adaptation frameworks to South-South educational exchange systems, and expands the empirical evidence base of China-Africa educational cooperation research, delivering fully transparent comparative quantitative inferential data and qualitative thematic evidence linking linguistic background to measurable academic adaptation outcomes, providing replicable benchmark data for subsequent comparative international education scholarship.

7.2. Practical and Diplomatic Policy Implications

The study's core results deliver actionable, differentiated practical guidance for three key stakeholder groups engaged in China-Africa educational exchange: Chinese higher education institutions: Immediate implementation of targeted trilingual language training and permanent French/English bilingual academic/administrative campus services is mandatory to mitigate structural linguistic barriers suppressing French-speaking students' academic engagement and overall contentment. Differentiated support systems must replace uniform one-size-fits-all interna-

tional student management models to address divergent linguistic subgroup needs. National Chinese education policymakers: Refined tiered scholarship and talent development policy frameworks must be formulated to account for baseline linguistic proficiency disparities between French and English-speaking African candidate pools, including funded pre-departure English language preparation for French-language African applicants. Centralized national longitudinal student outcome databases will enable ongoing evidence-based policy iteration to improve BRI talent training quality and equity.

Long-term China-Africa bilateral diplomatic cooperation: Prioritizing targeted institutional support to improve African youth overseas study experiences cultivates a cohort of constructive, pro-China young alumni stakeholders, establishing durable grassroots social and public opinion foundations for sustained deepening comprehensive strategic partnership between China and African nations.

7.3. Limitations

Several limitations should be considered when interpreting these findings. First, participants were recruited through purposive quota sampling from four West and Central African countries, so the results cannot be generalized to all African students in China, particularly those from Arabic- or Portuguese-speaking countries, and country-level comparisons within each linguistic group were not analyzed. Second, recruitment centered on comprehensive universities; vocational colleges, elite research-intensive universities, and institutions in western border provinces are underrepresented. Third, the cross-sectional design (March-July 2025) captures a single point in time; it cannot show how motivation, language adaptation, or contentment change over a degree program, nor can it establish that linguistic background causes the observed differences. Fourth, all outcomes rely on self-reported survey responses and retrospective interview accounts, which are subject to recall and social desirability bias; because predictors and outcomes were measured with the same instrument, common method variance cannot be ruled out, and Harman's single-factor test is only a limited diagnostic for it (Podsakoff *et al.*, 2003). Fifth, although the English and French versions of the questionnaire were prepared through forward and back-translation (Brislin, 1970), measurement invariance across the two language versions was not tested, so some of the observed group differences may reflect differences in how items were understood; several subscales also contain only two items, which limits the precision of their reliability estimates. Finally, the models do not test interactions between linguistic background and factors such as socioeconomic status, academic discipline, or the quality of university language support.

7.4. Actionable Future Research Agenda

Four high-priority, testable research directions are proposed to resolve the study's acknowledged limitations and expand nuanced China-Africa international student mobility scholarship: Multi-linguistic cross-national replication research:

Recruit participant cohorts from Arabic-speaking (Sudan, Egypt) and Portuguese-speaking (Mozambique, Angola) African sending nations to construct a pan-African comparative analytical framework incorporating all major colonial linguistic groups represented among African students in China. Longitudinal panel mixed-methods tracking research: Recruit incoming first-year African international students for annual repeated quantitative survey and qualitative interview data collection across full 2 - 4 years degree programs to map dynamic adaptive trajectories of language proficiency, learning motivation, and study contentment over time. Moderation effect multivariate regression analysis: Quantify complex interaction effects between linguistic heritage, pre-arrival language training access, socioeconomic background, and university multilingual service infrastructure as moderators of the linguistic background-study contentment causal relationship.

Targeted intervention experimental evaluation trials: Implement controlled pre/post-test experimental design to measure causal improvements in French-speaking students' academic engagement and satisfaction following trilingual language training and peer-mentoring intervention programs, generating rigorous causal evidence for institutional policy reform.

7.5. Concluding Remarks

Against the backdrop of deepening South-South cooperation and continuous Belt and Road Initiative advancement, China-Africa educational cooperation has entered a high-quality, equity-focused development stage. African international students studying in China function simultaneously as knowledge and skill learners, cross-cultural communication bridges, and core bilateral cooperation stakeholders. This analysis confirms linguistic colonial heritage is the foundational structural factor shaping divergent overseas learning experiences, yet all African student subgroups retain uniformly positive perceptions of Chinese higher education's long-term developmental value regardless of linguistic background. Deployment of targeted, differentiated, humanized institutional support strategies centered on expanded trilingual language intervention and cross-cultural integration services will further elevate African students' academic success, personal growth, and holistic study fulfillment, injecting sustained, long-term momentum into deep, mutually beneficial China-Africa comprehensive strategic partnership development.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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