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Influence of Emotional Experiences on English Language Learning Outcomes among Undergraduate Students at Kibogora Polytechnic, Rwanda

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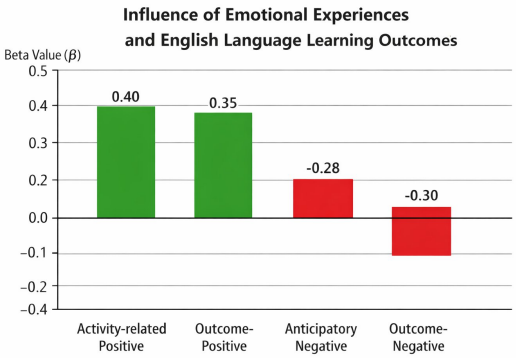
HIGHLIGHTS

- Multiple regression analyses indicate that emotional factors are significant predictors of English language proficiency, accounting for 56%–64% of the variance (R^2) across speaking, listening, reading, and writing, vocabulary, and grammar outcomes.
- Activity-positive emotions and outcome-positive emotions exhibit the largest standardized regression coefficients (β), positively predicting proficiency across all language subskills.
- Anticipatory negative emotions and outcome-negative emotions show negative β-values, significantly reducing English proficiency performance in specific linguistic domains.

GRAPHICAL ABSTRACT



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ABSTRACT

This study examined the role of emotional factors in shaping English language proficiency outcomes among undergraduate students at Kibogora Polytechnic (KP), a Rwandan university. Data were collected from 88 students using Likert-scale questionnaires and analyzed with descriptive statistics, correlation, and multiple regression models. Descriptive results indicated that students experienced both positive and negative emotions in their English learning. However, negative expectations and outcome emotions were stronger in the assessment. Correlation analyses revealed statistically significant relationships: Positive emotions were found to be strongly associated with improved English language proficiency, while negative emotions consistently hindered performance across all subskills. Overall, emotional determinants emerged as significant predictors of learners' proficiency, highlighting the crucial role of affective factors in shaping English language outcomes. Activity-related and outcome-positive emotions had the largest positive β-values, whereas anticipatory and outcome-negative emotions exerted inhibitory effects on specific English language skills. The findings underscore the central role of emotional factors in English learning in context where English is a medium of the instruction and highlight the need for integrating affective pedagogical support strategies into teaching and assessment practices.

1. Introduction

Emotional factors are central to learning. Research in education and psychology shows that learners' affective experiences, such as anxiety, enjoyment, motivation, engagement, hope, curiosity, optimism, eagerness, fear, nervousness, self-doubt, and self-efficacy, influence attention, persistence, and performance (Pekrun and Linnenbrink-Garcia, 2012; Alrashidi and Al- shammari, 2025). In academic settings, emotional states act as both facilitators (for example, enjoyment, interest, self-efficacy) and inhibitors (for example, anxiety, boredom) of the cognitive processes needed for successful learning. Multiple studies report that these effects hold across subject areas and modes of instruction (Goetz et al., 2013; Hagenauer et al., 2023).

Emotions play a key role in second and foreign language learning, especially where language competence enables access to instruction, classroom participation, and academic performance. For example, positive emotions such as foreign language enjoyment predict willingness to communicate and language performance in L2 or FL settings (Xiao and Jia, 2025). Research in applied linguistics has also documented robust links between L2-specific emotions and language skill attainment. Higher foreign language anxiety tends to predict lower oral performance and reduced willingness to communicate, whereas higher foreign language enjoyment is associated with greater participation, strategy use, and progress (Yu, 2025; Kianinezhad, 2024). Emotional determinants in language classrooms are dynamic and interact with contextual features such as teacher behaviour, peer climate, and pedagogical approach (Wang et al., 2024b). These emotional states act as powerful mediators, influencing both language learning outcomes and language proficiency more broadly (Gordani et al., 2025).

Across Africa, the rapid expansion of English as a medium of instruction (EMI) has amplified the importance of affective variables for learners' outcomes. Many schools and universities face recurring problems, including uneven teacher preparation and weak support for integrating language and content learning (Macaro, 2018).

Content comprehension and cognitive engagement often suffer when content is delivered through a second or foreign language without adequate language support, and emotional consequences follow (Rouaghe and Assassi, 2024). These challenges, together with differing levels of English proficiency, create learning environments where anxiety, low confidence, and similar inhibiting states can interfere with students' chances of success (Zhang and Pladevall-Ballester, 2023).

Rwanda presents a notable case for analyzing how emotional factors, language policy, and classroom realities intersect to shape academic performance. In 2008–2009, the country replaced French with English as the main instructional language in order to support national goals of economic integration and international participation (Kral, 2023). In Rwandan classrooms, the rapid implementation of EMI has contributed to an environment where teacher–student code-switching persists, and where significant linguistic gaps remain, reflecting limited English proficiency among some teachers and uneven English competence among learners (Habintwali et al., 2024). Such a mismatch increases cognitive load, elevates anxiety among learners with limited exposure to English, and reduces opportunities for fluent communication, which in turn lowers measurable performance in both language and content subjects (Wang et al., 2024a).

Two contextual features make Rwanda especially relevant for the present study. First, disparities in English proficiency persist among Rwandan undergraduate students despite substantial investments in teacher training. Moreover, there is still a persistence of poor academic achievement culminating in school dropout in the Rwandan education system. These issues often lead to reduced employability, limiting graduates' opportunities in the labor market. (Mitchell et al., 2024). This has resulted in ongoing instructional difficulties with both emotional and cognitive implications for learners.

Second, Rwanda's largely monolingual context, where Kinyarwanda predominates outside school, limits access to English input and amplifies classroom anxiety and reluctance to speak (Mugirase et al., 2025).

Together, these factors create a context in which emotional determinants are likely to act as key mediators between linguistic background and academic learning outcomes in both EFL/ESL and EMI settings, including Rwandan universities.

Despite growing interest in emotions in L2 learning and EMI, there is still a scarcity of quantitative works that examine the joint influence of multiple emotional determinants on academic outcomes in African EMI/EFL contexts, and in Rwanda in particular. Many prior studies have focused on single constructs, such as foreign language anxiety, or on descriptive accounts of EMI implementation that do not integrate systematic affective measurement and predictive analysis (Gullo et al., 2025). This gap limits policymakers' ability to design integrated interventions that target both language skills and the emotional barriers that undermine performance.

The present study introduces an emotional affective perspective to help explain why many Rwandan university students continue to struggle with English proficiency despite ongoing efforts to strengthen language education. Many interventions have focused on cognitive approaches, instructional materials, or curriculum reforms, while overlooking the emotional atmosphere that surrounds the learning process. Exploring and documenting students 'emotional experiences provides context-specific evidence that supports affective pedagogical strategies that complement traditional teaching approaches.

2. Objectives of the study

The following objectives guided this research:

To identify the key emotional variables experienced by students during English language learning.

To examine the relationship between students' emotional determinants and their English language proficiency outcomes.

To determine the extent to which emotional factors predict English language proficiency achievements.

3. Research questions

The study addressed the following research questions:

What are the key emotional variables experienced by students in their English language learning process?

(ii) What is the relationship between students' emotional determinants and their English language proficiency outcomes?

(iii) To what extent do emotional factors predict students' English language proficiency achievements?

4. Review of literature

4.1. Emotional determinants and academic learning outcomes

A growing body of empirical works show that learners' emotions, whether experienced before, during or after language activities and assessments, shape motivation, cognitive processing, participation and learning achievement in EFL/ESL settings (Pekrun & Linnenbrink-Garcia, 2012; Wang et al., 2021). Students' emotional states play a central role in their academic outcomes.

For example, Yu (2025) examined the relationship between foreign language anxiety and foreign language enjoyment among university students and found that both negative and positive emotional states significantly influenced language achievement. Learners experiencing higher enjoyment engaged more actively and achieved better performance.

Similarly, Kianinezhad (2024) reported that elevated anxiety levels were associated with reduced classroom participation and lower academic outcomes. Emotional distress limited cognitive processing capacity and impeded performance. In EMI settings, motivational emotions such as interest, confidence, and perceived support are strongly tied to engagement and achievement (Zhang & Pladevall-Ballester, 2023). These findings reinforce the view that emotional determinants profoundly shape learning outcomes in EMI context.

Several studies have assessed emotional variables as predictors of English language performance. Mahmud & Hameed (2024) conducted a correlational study on Iraqi EFL students and found that emotional readiness and communicative confidence were significant predictors of communicative competence. Students who regulated their emotions performed better in interactive English tasks. Motivational emotions have also been shown to predict students' ability to cope with the challenges of EMI learning environments. Variables such as interest, enjoyment and perceived autonomy can be stronger predictors of English performance than some cognitive factors (Zhang & Pladevall-Ballester, 2023). Yu (2025) reported that foreign language enjoyment predicted higher English proficiency scores, while foreign language anxiety predicted lower scores, which illustrates the predictive effect of emotional factors on English performance.

Overall, the literature indicates that emotional states are not accidental out of learning. They are measurable indicators that forecast how well students perform in English as a foreign or second language.

4.3. Teachers' attitudes and pedagogical interventions

Teachers' attitudes towards the emotional experiences of English language learners (ELLs) play a critical role in shaping both emotional well-being and academic performance (Shao et al., 2025). Emotional experiences such as anxiety, confidence, curiosity or frustration influence motivation, engagement and achievement. Teachers' awareness of, sensitivity to and active responses to these emotional states can either hinder or enhance language learning.

One critical factor is teachers' ability to recognize and understand the emotional experiences that learners bring to the classroom.

ELLs often face high anxiety in speaking and listening because they fear making mistakes or being misunderstood (Horwitz, 2001). Teachers who recognize this challenge can adapt their strategies to alleviate anxiety and create more inclusive, supportive environments. Teacher empathy and responsiveness to students' emotional needs are essential for fostering classrooms where ELLs feel comfortable and motivated to take risks (Dewaele & MacIntyre, 2014). Attention to emotional states helps reduce fear and frustration and supports positive emotions that promote engagement and persistence (Pekrun & Linnenbrink-Garcia, 2012).

Effective pedagogical interventions address both cognitive and emotional aspects of language learning. Creating emotionally safe and supportive environments is a key intervention. Teachers can foster a sense of community and trust by encouraging open communication, building strong student–teacher relationships and promoting peer support (Holzer & Dau-miller, 2025; Allen et al., 2021). Learners are more likely to engage in the learning process when they feel emotionally comfortable.

According to Bandura (1997), motivational strategies can further support emotional engagement. Therefore, providing positive feedback, celebrating small successes and setting achievable goals can boost self-esteem and self-efficacy intrinsic motivation can be supported by making lessons relevant to students' interests and by stimulating curiosity and intrigue about English (Solari et al., 2023). To support this claim, Atifnigar (2024) observed that managing emotional inhibitors, especially anxiety, is vital.

He equally found that relaxation techniques, collaborative activities and low-stakes formative assessments reduce pressure during language tasks. Encouraging a growth mindset, in which learners see mistakes as a natural part of learning, can reduce anxiety and self-doubt (Dweck, 2015). For Guo et al. (2025) & Pekrun & Linnenbrink-Garcia (2012), a teacher should promote LL's emotional resilience by helping them develop coping mechanisms for setbacks and failures. Constructive feedback can also help students interpret challenges as opportunities for growth rather than threats to self-esteem.

Student-teacher relationships also shape learners' emotional experiences. According to Yusuf et al. (2023) and Guo et al., (2025), positive relationships characterized by respect and mutual understanding can mitigate negative emotions and support academic success. Teachers' respect for cultural diversity and use of culturally relevant materials help students feel valued and respected, which supports a positive emotional climate and improves language learning outcomes (Gay, 2010).

5. Research Methodology

5.1 Research design

This study employed a quantitative correlational research design, which allows examination of relationships among naturally occurring variables without manipulation (Creswell and Creswell, 2018). This design made it possible to explore associations and determine the predictive influence of emotional factors under real language learning conditions.

A survey was also used to collect supplementary data suitable for correlation and regression analyses, as surveys are recommended for collecting quantitative information from relatively large groups within short timeframes (Cohen et al., 2002).

5.2 Participants and sampling

The survey was administered to 88 Rwandan undergraduates drawn from a population of 1,779 learners enrolled in language

options matriculated at Kibogora Polytechnic (KP). To ensure balanced representation across language programmes and academic levels, a stratified random sampling technique was used. Moreover, stratified random sampling increased representativeness and reduced sampling bias (Fraenkel et al., 2006). Within each stratum, participants were randomly selected to enhance the validity and generalizability of the findings.

5.3 Instruments and data collection

A structured questionnaire comprising Likert- scale items measuring emotional determinants and items assessing proficiency outcomes across English language subskills was used to gather quantitative data. The instrument was appropriate for quantifying perceptions of emotional experiences, attitudes, psychological constructs and the acquisition experiences of English proficiency subskills. (Likert, 1932). Participants were assured of confidentiality and voluntary participation in line with established ethical guidelines (BERA, 2018).

5.4 Reliability and validity

To enhance reliability, the questionnaire was adapted from previously validated instruments on emotional determinants and learning performance. Internal consistency reliability was evaluated using Cronbach's alpha, with coefficients above 0.70 taken as evidence of acceptable consistency, in line with

Tavakol and Dennick (2011). Strong correlations between pilot test scores and main study scores indicated that the instrument produced stable results over time.

A pilot study was conducted with a small group of students to test the reliability and appropriateness of the questionnaire, as recommended by Teijlingen and Hundley (2001). The pilot tested clarity, suitability and functionality. Feedback led to minor refinement of ambiguous items, adjustment of wording for sensitive emotional questions, and improvement of overall flow. This process ensured that the final instrument was well-suited to the target population and reduced measurement error.

Validity was supported through expert review by specialists in educational psychology and English language education, who assessed whether questionnaire items adequately represented the emotional variables under investigation.

Construct validity was enhanced by grounding the instrument in established theoretical frameworks of educational emotions, including control–value theory, temporal classification of emotions and broader frameworks of educational affect (Pekrun & Linnenbrink- Garcia, 2012; Pekrun, 2006). Criterion-related validity was reflected in the expected relationships between students' emotions and their English proficiency scores, consistent with prior literature (Dewaele & MacIntyre, 2014; Yu, 2025). These procedures follow recommended practice for establishing validity in quantitative research (Creswell and Creswell, 2018).

5.5 Ethical considerations

The study followed ethical guidelines that emphasize respect, protection, beneficence and dignity of participants. (Creswell & Creswell, 2018). Participation was strictly voluntary. Students were informed about the purpose of the research and their right to withdraw at any time. Confidentiality was maintained by avoiding identifying information and reporting findings in aggregated form only. Given the sensitivity of questions about emotions, items were framed in a non-invasive way and students were allowed to skip any question that caused discomfort.

6. Empirical results

6.1 Descriptive statistics

In this study, students' emotional experiences were grouped into anticipatory, activity- related, expectation, and outcome emotions to provide a structured framework for analysis. Anticipatory emotions, felt before learning, include positive feelings such as hope, optimism, and curiosity, and negative ones like anxiety, apprehension, and worry.

Activity-related emotions arise during learning, with enjoyment, interest and flow representing positive engagement, while confusion, boredom and frustration reflect negative experiences. Expectation emotions occur before assessment, where hope, self-determination and confidence contrast with fear and self- doubt.

Outcome emotions follow academic results, with positive emotions like pride and satisfaction or negative ones such as disappointment and shame. Each category was further divided into positive and negative subscales, and total scores were calculated by summing item responses within each subscale.

Higher scores on negative emotions indicate potential emotional barriers, whereas higher positive scores suggest greater engagement and successful learning. This categorization provides the basis for subsequent descriptive statistics and correlation analyses between emotional determinants and English language proficiency profiles.

Table 1: Summary statistics for emotional factors and English proficiency

Variable	Group	Items	Range	N	Mean	Std. Dev.	Min	Max
Act Pos total	Anticipatory positive emotions	4	4–20	88	11.17			18
Act Neg total	Anticipatory negative emotions	4	4–20	88	11.76	3.05	5	17
Act Pos total	Activity positive emotions	4	4–20	88	11.59	3.22	4	18
Act Neg total	Activity negative emotions	4	4–20	88	11.61	3.31	5	18
Exp Pos total	Positive expectations emotions	2	2–10	88	5.50	1.70	2	9
Exp Neg total	Negative expectations emotions	3	3–15	88	8.70	2.44	3	15
OutPos total	Outcome positive emotions	5	5–25	88	14.53	4.10	5	24
Out Neg total	Outcome negative emotions	5	5–25	88	15.40	4.20	5	24
Pos Emo total	Overall positive emotions	15	15–75	88	42.80	11.17	16	67
Neg Emo total	Overall negative emotions	16	16–80	88	47.48	11.85	19	73
Speak total	Speaking proficiency	5	5–25	88	15.85	4.70	6	25
Listen total	Listening proficiency	3	3–15	88	9.16	2.84	3	15
Read total	Reading proficiency	3	3–15	88	9.34	2.94	3	15
Write total	Writing proficiency	3	3–15	88	9.72	2.85	3	15
Vocab total	Vocabulary proficiency	3	3–15	88	9.53	3.00	3	15
Grammar total	Grammar proficiency	3	3–15	88	9.09	2.93	3	15

Variable	Group	Items	Range	N	Mean	Std. Dev.	Min	Max
Proficiency total	Overall English proficiency	20	20–100	88	62.69	18.14	21	9

Source: Field data collected by Ndeze J. C. (2026).

Table 1 shows that students' emotional profiles cluster around the midpoint of their respective scales. Anticipatory and activity emotions are balanced, since anticipatory positive (mean 11.17) and anticipatory negative (11.76) are close on the 4–20 scale, and activity positive (11.59) and activity negative (11.61) display the same pattern. This suggests that students approach and experience English learning process with a mixture of positive and negative feelings rather than strongly polarized emotions.

Expectation emotions show clearer asymmetry. Students report relatively low positive expectations (mean 5.50 on a 2–10 scale) and moderately high negative expectations (mean 8.70 on a 3–15 scale).Many learners, therefore, anticipate difficulty or worry before assessments.

Outcome emotions show the strongest contrast. Outcome negative emotions average 15.40, slightly above the midpoint of the 5–25 scale, whereas outcome positive emotions average 14.53, slightly below the midpoint. Negative reactions to setbacks or poor performance are therefore somewhat more pronounced than positive responses to success.

Overall positive (42.80) and overall negative (47.48) emotion indices lie near the midpoints of their ranges, indicating a generally neutral emotional climate with a slight tilt toward negative experiences. The large standard deviations (11.17 and 11.85) signal substantial variation across language option undergraduates.

The results also show that English proficiency levels fall in the moderate range. Overall proficiency has a mean of 62.69 on a 20–100 scale, slightly above the midpoint. Among English language subskills, speaking (15.85) and writing (9.72) appear relatively stronger, while listening (9.16) and grammar (9.09) are slightly lower. These patterns may reflect common classroom emphases in Rwanda, where reading, vocabulary and oral expression are more frequently practiced than listening and formal grammar.

Overall, Table 1 portrays a student population with moderate English proficiency and mixed, slightly negative emotional tendencies toward English learning. The variability across both emotion and proficiency measures justifies deeper analysis using correlations and regression.

6.2 Pairwise correlations

Table 2: Pairwise correlation matrix for emotional factors and English proficiency

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1) APos total	1.00														
(2) Act Pos total	0.74*	1.00													
(3) Exp Pos total	0.71*	0.75*	1.00												
(4) Out Pos total	0.78*	0.75*	0.72*	1.00											
(5) A Neg total	-0.28*	-0.28*	-0.19	-0.21*	1.00										
(6) Act Neg total	-0.23*	-0.27*	-0.16	-0.14	0.76*	1.00									
(7) Exp Neg total	-0.32*	-0.23*	-0.19	-0.18	0.73*	0.74*	1.00								
(8) Out Neg total	-0.29*	-0.23*	-0.19	-0.19	0.79*	0.77*	0.81*	1.00							
(9) Speak total	0.62*	0.64*	0.45*	0.60*	-0.49*	-0.44*	-0.47*	-0.51*	1.00						
(10) Listen total	0.58*	0.56*	0.42*	0.54*	-0.52*	-0.48*	-0.50*	-0.48*	0.85*	1.00					
(11) Read total	0.59*	0.57*	0.39*	0.57*	-0.47*	-0.49*	-0.50*	-0.50*	0.88*	0.87*	1.00				
(12) Write total	0.62*	0.58*	0.49*	0.61*	-0.45*	-0.39*	-0.42*	-0.44*	0.89*	0.83*	0.83*	1.00			
(13) Vocab total	0.60*	0.57*	0.41*	0.61*	-0.54*	-0.51*	-0.52*	-0.56*	0.89*	0.84*	0.88*	0.86*	1.00		
(14) Grammar total	0.60*	0.60*	0.45*	0.56*	-0.54*	-0.49*	-0.46*	-0.50*	0.88*	0.84*	0.88*	0.86*	0.85*	1.00	
(15) Proficiency total	0.64*	0.63*	0.46*	0.62*	-0.53*	-0.49*	-0.51*	-0.53*	0.96*	0.92*	0.95*	0.93*	0.94*	0.94*	1.00

** p<0.10, ** p<0.05, *** p<0.01. Source: Field data collected by Ndeze J. C. (2026).*

positive correlates at 0.64 with speaking and 0.63 with overall proficiency. Outcome positive shows similar magnitudes, such as 0.61 with vocabulary and 0.62 with overall proficiency. Positive expectations are also associated with higher proficiency, though the correlations (0.39–0.49 across skills) are somewhat smaller.

Conversely, all negative emotions correlate negatively with English proficiency outcomes. Outcome negative emotions are consistently strong predictors of lower skill performance (for example, r = −0.51 with speaking and r = −0.56 with vocabulary). Anticipatory negative and activity negative emotions also show notable associations with poorer results. These patterns indicate that negative emotional experiences before, during, and after learning hinder language performance.

From the same table 2, proficiency subskills are also very highly correlated with each other (r = 0.85–0.96), confirming that they form a coherent proficiency construct. Overall

proficiency is strongly predicted by the component skills and by both positive and negative emotional factors.

Overall, Table 2 shows a clear pattern. Positive emotions support English learning, while negative emotions undermine it. The magnitude and consistency of these correlations highlight the importance of emotional processes in shaping language outcomes.

Table 3: Linear regression analysis of emotional factors on English proficiency

VARIABLE	Speak	Listen	Read	Write	Vocab	Grammar	Proficiency
Anticipatory positive	0.226	0.161	0.177*	0.160	0.140	0.178**	1.043*
	(0.167)	*(0.143)*	*(0.097)*	*(0.102)*	*(0.100)*	*(0.090)*	*(0.551)*
Activity positive	0.613***	0.195*	0.265**	0.155	0.182*	0.248**	1.658**
	(0.179)	*(0.111)*	*(0.115)*	*(0.114)*	*(0.101)*	*(0.121)*	*(0.637)*
Expectation positive	-0.721**	-0.234	-0.478**	-0.112	-0.468**	-0.220	-2.234*
	(0.334)	*(0.193)*	*(0.224)*	*(0.212)*	*(0.209)*	*(0.206)*	*(1.211)*
Outcome positive	0.313*	0.166	0.223**	0.209*	0.327***	0.148	1.385**
	(0.178)	*(0.103)*	*(0.109)*	*(0.110)*	*(0.114)*	*(0.105)*	*(0.643)*
Anticipatory negative	-0.180	-0.197	0.006	-0.172	-0.116	-0.249*	-0.907
	(0.202)	*(0.127)*	*(0.137)*	*(0.155)*	*(0.146)*	*(0.133)*	*(0.808)*
Activity negative	0.078	-0.065	-0.116	0.035	-0.063	-0.071	-0.201
	(0.191)	*(0.114)*	*(0.117)*	*(0.123)*	*(0.099)*	*(0.109)*	*(0.652)*
Expectation negative	-0.179	-0.206	-0.222	-0.119	-0.089	0.003	-0.813
	(0.236)	*(0.171)*	*(0.157)*	*(0.182)*	*(0.143)*	*(0.156)*	*(0.924)*
Outcome negative	-0.252*	0.024	-0.069	-0.052	-0.158	-0.058	-0.565
	(0.151)	*(0.101)*	*(0.099)*	*(0.103)*	*(0.100)*	*(0.107)*	*(0.575)*
Gender = 2, Female	-0.769	-0.343	-0.183	-0.235	0.035	-0.284	-1.779
	(0.711)	*(0.470)*	*(0.488)*	*(0.460)*	*(0.426)*	*(0.448)*	*(2.642)*
Education = 2, S5	0.384	0.475	0.515	0.624	-0.120	0.222	2.100
	(0.820)	*(0.560)*	*(0.515)*	*(0.569)*	*(0.517)*	*(0.552)*	*(3.063)*
Education = 3, S6	1.327	1.194**	0.967	1.176**	0.725	0.940	6.328*
	(0.896)	*(0.538)*	*(0.586)*	*(0.569)*	*(0.523)*	*(0.577)*	*(3.232)*
Constant	12.131***	8.095***	7.556***	6.691***	8.767***	7.672***	50.912***
	(2.452)	*(1.704)*	*(1.734)*	*(1.413)*	*(1.381)*	*(1.911)*	*(9.261)*
Observations	88	88	88	88	88	88	88
R-squared	0.631	0.560	0.589	0.557	0.649	0.589	0.661

*Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Source: Field data collected by Ndeze J. C. (2026). Columns report outcome subskills (total scores); the final column is overall proficiency.*

proficiency (b = 6.328, p < 0.10), which is consistent with expected gains as students' progress.

From a practical perspective, treating the subscales as totals, one standard deviation increase in activity positive (about 3.22 points) predicts roughly 2.0 points higher speaking (0.613 × 3.22) on a 5–25 scale and about 0.8 points higher grammar (0.248 × 3.22) on a 3–15 scale.

One standard deviation increase in positive outcome (about 4.10 points) predicts roughly 1.3 points higher vocabulary (0.327 × 4.10) on a 5–25 scale. These are meaningful instructional gains.

The negative coefficient on expectation positive suggests that if students feel confident before tests without supporting day-to-day enjoyment, engagement and mastery experiences, this confidence does not correspond to higher performance once the stronger positive processes are accounted for.

Strategies that increase in-class enjoyment, interest, and flow, and that consolidate positive feelings after successful tasks, are therefore likely to improve multiple skills. Examples include lively task design, early incremental successes, immediate formative feedback and public recognition of effort. Reducing anticipatory worry and negative reactions after failure, for example through supportive test routines and opportunities to correct mistakes, can protect speaking and grammar. Because the eight emotion subscales are correlated, results should be interpreted as partial effects. For robustness, future work can report variance inflation factors, standardized betas and

sensitivity checks using composite indices rather than entering all subscales together.

7. Discussion, Conclusion, and Recommendations

7.1 Discussion of empirical findings

The findings show that the emotional climate around undergraduates' English learning at KP is neutral with a slight tendency towards negative emotional experiences, especially in expectations and outcome emotions. The proficiency achievement indicates that students are progressing in English, but they do so in an environment where worry, fear of failure, and disappointment remain salient.

The findings underscore a consistent pattern within the KP context, where English operates as the principal medium through which academic achievement is attained. This context places substantial linguistic demands on learners, who exhibit a complex emotional profile shaped by the pressure to perform in a language that remains, for many, insufficiently internalized.

The second research objective explored whether there is a statistically significant relationship between students 'emotional determinants and their learning outcomes in English. The correlation matrix provides strong support. Indeed, it was evidenced that positive emotion subscales correlate positively and strongly with English proficiency subskills and overall proficiency, while all negative emotion subscales correlate negatively. The magnitudes are large. Activity and outcome positive emotions often correlate above $r = 0.60$ with subskills and the composite proficiency score. Anticipatory and outcome negative emotions show similarly large negative correlations. Emotional experiences among KP undergraduates are therefore central, not marginal, to English-learning performance, as revealed in the previous findings on foreign language enjoyment and anxiety by Dewaele and MacIntyre (2014) and Yu (2025).

Likewise, the first and third research objectives focused on the predictive role of emotional factors and on the possibility that some components are stronger predictors than others. The regression models confirm that emotional variables jointly explain a substantial proportion of variance in English proficiency, with R2 values between 0.56 and 0.66. Within this multivariate context, activity-related positive emotions emerged as the most consistent positive predictor across all subskills and overall proficiency. This revealed that KP's emotional profiles, such as enjoyment, interest, and flow during English tasks, translate directly into better skill performance, especially in reading, writing, vocabulary, and overall proficiency.

This study indicated that KP learners experiencing flow during the process of engaging with the language tasks demonstrated full focus, which increased their attention to language aspects, helping them monitor and correct their language. Similarly, their anticipatory positive emotions show smaller, more selective effects, implying that their hopeful expectations are helpful but less powerful than the emotions experienced during and after learning. Additionally, their positive feelings after successful tasks, such as pride and satisfaction, appeared to consolidate their learning gains. This is also evidenced by the fact that KP undergraduates experiencing enjoyment tend to practice speaking more often, resulting in fluency achievement.

By contrast, expectation-positive emotions present anomalies with negative effects. These anticipatory positive emotions are perceived to have smaller, selective cognitive, motivational, and regulatory pathways, ultimately accounting for the differential impact of emotions on language proficiency subskills. The complex pattern associated with positive expectations is likely attributed to a suppression effect, resulting from strong intercorrelations among the positive subscales. This can also be explained the fact that KP undergraduates' confidence and hopeful expectations without regular positive engagement, learning enthusiasm, and interest do not guarantee higher learning results. This is supported by Sabaratnam's (2025) claim that without consistent behavioural and emotional involvement in learning activities, positive expectations alone may not yield significant improvements in academic results. Therefore, hopeful expectations are helpful but less influential than emotions experienced during and after learning.

Similar findings in this study equally show that KP undergraduates experiencing emotional interest are the most cognitively engaged and sustained curiosity toward language learning tasks, which fosters more active participation and deeper involvement in communicative activities.

Conversely, positive feelings after successful tasks, such as pride and satisfaction, seem to reinforce learning gain.

The findings of this study show that learning operates in a cyclical process whereby the learners' emotional experiences in one learning phase significantly influence their engagement in subsequent phases. Specifically, positive emotional experiences acquired by learners following the successful completion of a task are likely to carry over to subsequent learning phases, thereby shaping learners' motivation, engagement, and strengthening readiness to tackle new tasks in the next learning phase. This observation is consistent with prior research by Dewaele and MacIntyre (2014), which demonstrates that positive emotional experiences in language learning are not isolated events but extend into future learning activities.

Turning to the opposite side, the findings have indicated that negative emotions become weakened once positive factors are taken into account, yet anticipatory/expectation and outcome negative emotions still inhibit grammar and speaking, echoing the documented impact of foreign language anxiety on production skills among KP undergraduates (MacIntyre and Gardner, 1991; MacIntyre, 1997).

From the foregoing discussions, the observed positive correlations between activity, positive emotions, and language proficiency subskills can be explained through control–value theory, which posits that learners who perceive higher control over their performance and assign greater value to language tasks are more likely to experience positive emotions. For instance, KP undergraduates who believed they were capable of successfully completing speaking tasks (high perceived control) and who recognized the importance of English for academic or communicative purposes (high task value) were more likely to experience achievement emotions. These emotions, in turn, stimulated their cognitive engagement, sustained participation, and effective strategy use.

Conversely, KP undergraduates' negative emotions such as anxiety, frustration, and shame, were typically associated with low perceived control and inaccurate interpretation of performance outcomes. Those who doubted their ability to perform effectively in English tasks tended to experience anticipatory anxiety prior to engagement and negative evaluative emotions following performance.

Based on the affective learning framework, such emotions emerge when learners perceive a lack of control over outcomes or anticipate failure despite valuing the task. These emotional states reduce engagement and discourage participation, thereby reducing learners' willingness to engage in speaking activities. Briefly, the findings deepen understanding of how emotions operate in EMI learning context.

Conclusively, a strong association between emotional variables and the composite proficiency index suggests that students who experience emotional difficulties in English learning encounter cumulative disadvantages throughout their academic journey. In the context of English Medium Instruction (EMI), such as in Rwandan universities, where English functions as the primary vehicle for teaching and accessing disciplinary knowledge, these emotional constraints extend beyond language learning itself to affect overall academic performance. Consequently, emotional experiences become a critical mediating factor in determining students' success within EMI environments, reinforcing the need to address affective dimensions as part of academic support strategies.

7.2 Summary of objective achievement

The study set out to: (i) identify key emotional variables experienced by students in their English learning, (ii) examine the relationship between emotional determinants and English academic proficiency outcomes, and (iii) determine the extent to which emotional factors predict performance in English proficiency. The first objective was achieved through the construction and analysis of composite indices for anticipatory, activity, expectation, and outcome emotions, with separate positive and negative components and overall positive and negative scales. Table 1 summarizes these indices, showing mixed emotional experiences with a tilt towards negative expectations and negative outcome emotions. This confirmed the presence of distinct emotional profiles in the KP students' learning context.

The second objective was addressed using pairwise correlations in Table 2. Positive emotion subscales were positively correlated with all English proficiency subskills and overall proficiency, while negative emotion subscales showed negative correlations. These results provided clear evidence of a statistically significant relationship between emotional determinants and KP undergraduates' proficiency.

The third objective was met using multiple regression (Table 3). The eight emotion subscales jointly explained 56–66% of the variance in the different proficiency outcomes, even after controlling for gender and academic level.

Activity and outcome-related positive emotions emerged as the strongest predictors, while certain negative emotions, particularly anticipatory and outcome-negative emotions, remained harmful for specific proficiency subskills. These findings demonstrate that emotional factors not only correlate with but also significantly predict English language proficiency results.

7.3. Conclusion

The study concludes that emotional factors are central to English language learning outcomes among Rwandan university students at Kibogora Polytechnic. Learners operate in an emotional climate that is not uniformly negative, yet anxiety, worry and disappointment are prominent, especially around assessment and perceived failure. Students who report higher enjoyment, interest and satisfaction during and after English learning tend to achieve higher proficiency across all language skills.

Correlation and regression analyses confirm that emotional determinants are strongly and systematically linked to English performance and account for a large share of the variation in proficiency. Activity-related and outcome- related positive emotions are especially powerful drivers of language development. Negative emotions, particularly anticipatory anxiety and negative reactions after failure, undermine performance and can erode gains in speaking, vocabulary and grammar.

In the Rwandan EMI context, where English serves as both a subject and a medium of instruction, these findings are important. They can be seen as emotional barriers to learning English that may restrict access to content learning more broadly, while classrooms that offer emotional support can enhance both language and academic outcomes. Therefore, emotional factors warrant explicit attention in teacher training, curriculum development, and policy.

Despite the above results, this study has some limitations that should be acknowledged. The use of self-reported emotional measures may have introduced response bias. Additionally, the focus on a specific EMI context in Rwanda may have restricted the generalizability of the findings. Nevertheless, the study provided valuable insights into the role of emotional factors in English language proficiency.

7.4 Recommendations

Based on the empirical findings, the following recommendations are proposed: Specific interventions can target common emotional barriers in EMI classrooms:

Foster positive activity emotions. Teachers should implement classroom strategies that actively promote positive emotions by creating engaging, interactive, and meaningful English lessons. Communicative activities, group work, projects, and tasks related to students' interests can boost enjoyment and interest, which are strong predictors of proficiency. This may involve providing structured opportunities for success, offering timely feedback, scaffolding complex tasks, and incorporating discussions, and role-plays to reduce boredom and frustration while increasing engagement.

Pre-lesson briefings can also help manage anticipatory anxiety. Reflective activities can enhance emotional awareness and self-regulation. Peer collaboration can reduce social discomfort and embarrassment. Post-assessment reflection and reinforcement can help transform negative emotions into constructive learning experiences.

(ii) Strengthen positive outcome emotions: Teachers should provide immediate, frequent, constructive feedback that highlights progress and effort, not only correctness. Celebrating small successes and using rubrics that show growth can reinforce positive feelings after tasks and assessments.

Reduce anticipatory anxiety and fear of failure; Schools should adopt assessment practices that reduce unnecessary pressure, such as spacing tests, using low-stakes quizzes, explaining expectations clearly, and providing practice items. Teachers can model a growth mind-set and normalize errors as part of learning.

Integrate emotional awareness into teaching education: Pre-service and in- service programmes planned for language instructors should include modules on academic emotions with

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