Examining Cambodian EFL University Learners' Perceived Autonomy, Engagement, and Performance

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Article Info	ABSTRACT
	Despite studies highlighting the importance of learner autonomy, engagement, and academic performance in various contexts, the research gap in Cambodian EFL instruction is significant. This study compared Cambodian EFL university students' perceptions of learner autonomy, learner engagement, and academic performance based on gender, study level, and university type. A quantitative method was applied, involving cluster sampling and a bilingual questionnaire in English and Khmer. Data from 108 participants—selected randomly from 2nd, 3rd, and 4th-year students at three universities in Phnom Penh—was analyzed using SPSS (Version 23) with descriptive and inferential statistics. Findings revealed that public university students exhibit much higher learner autonomy than their private university counterparts, although both groups demonstrate equal levels of engagement and academic performance. Gender and university type influenced perceptions of autonomy, with male students and those from certain universities perceiving greater autonomy. In conclusion, this study filled a research gap in Cambodian EFL instruction by comparing university students' perceptions of learner autonomy, engagement, and academic performance. The study underscores the necessity of targeted interventions to address gender disparities in autonomy and engagement, emphasizing the need for inclusive educational strategies for female students.

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1. INTRODUCTION

English ability has become essential in today's more globalized world, particularly in non-native settings like Cambodia. This was acknowledged by the Cambodian Ministry of Education, Youth, and Sport (MoEYS) in 2018, emphasizing the necessity of improving EFL instruction in Cambodian colleges. Achieving this goal requires a thorough understanding of the elements affecting student learning experiences, particularly learner autonomy, learner engagement, and academic performance.

Successful language acquisition requires learner autonomy, often known as self-directed learning [1], [2], [3]. The impact of the educational environment was highlighted by Iamudom and Tangkiengsirisin [1], who discovered that Thai public school students demonstrated higher degrees of autonomy than those in international schools. In addition to pointing out obstacles to independent learning, Vuong & Tran [2] found that intrinsic motivation, learning preferences, and technology were important elements supporting autonomy among Vietnamese university students. Tuan [3] observed that while Vietnamese EFL learners recognized the importance of autonomy, their perceived ability to act independently was only slightly above average, revealing a gap between theory and practice. Thus, integrating learner autonomy into curricula is essential for effective EFL instruction, as suggested by Tuan [3].

Language learning depends on learner engagement, which includes behavioural, emotional, and cognitive components [4], [5], [6]. Despite obstacles like workload and technical difficulties, Li & Li [4] discovered that a flipped classroom increased emotional engagement among Chinese EFL students. Positive emotions greatly improve engagement and academic performance, according to Wang et al. [5]. The significance of instructor support in promoting learner autonomy during online EFL instruction was highlighted by Susanti, Rachmajanti, and Mustofa [6]. These studies highlight the complexity of learner engagement and the need for more study in the Cambodian EFL environment.

Language acquisition's effectiveness is reflected in EFL's academic performances determined by grades or standardized examinations [7], [8]. The expectancy-value theory was emphasized by Wang & Xue [7], who demonstrated that learner motivation has a major impact on performance. Using the Quizizz app, Panmei and Waluyo [8] investigated the impact of gamification on EFL vocabulary learning. They found no differences in test scores overall, but there were considerable gains in certain areas, suggesting that gamification had specific benefits.

The Cambodian educational context encounters considerable barriers, such as teacher-centred approaches, restricted possibilities for oral practice, and difficulty in student motivation [9], [10]. Notwithstanding these concerns, empirical studies on the factors that affect academic performance in Cambodian higher education are deficient, setting this study apart from the existing global literature [11].

This literature review reviewed research on learner autonomy, engagement, and academic performance in various EFL environments. Even though the studies provide insightful information, a significant research gap focuses on Cambodian EFL instruction. This study examines how Cambodian EFL university students, broken down by gender, study level, and university type, perceive academic achievement, learner autonomy, and engagement. This study developed the following research question in order to address the aforementioned research gap and goal:

- What are the similarities and differences among Cambodian EFL university students' perception toward learner autonomy, learner engagement, and academic performance across gender, study level, and kind of university?

2. THEORETICAL FRAMEWORK

The theoretical framework of this study comprises three key theories: Self-Determination Theory [12], Flow Theory [13], and Self-Efficacy Theory [14]. First, the three characteristics of autonomy, competency, and relatedness are used by Self-Determination Theory, an empirically grounded model of human motivation and well-being, to evaluate learner autonomy [12]. Second, according to Csikszentmihalyi & Larson [13], flow theory explains a condition of optimal experience that is attained when an individual's skills match the difficulties of an activity. Eight dimensions—arousal, flow, control, boredom, relaxation, apathy, worry, and anxiety—are included in this assessment of learner engagement. Only three dimensions—arousal, control, and relaxation—were used in this study. Third, self-efficacy theory is concerned with the belief of an individual in their ability to control their behaviour, motivation, and social surroundings [14]. Three dimensions quantify academic performance: generality, strength, and magnitude. This study, however, concentrated on generality and strength. In conclusion, there are connections between self-determination, flow, and self-efficacy theories. Flow theory also impacts self-efficacy when learning English as a foreign language (EFL).

Also, this study employed a conceptual framework to examine the relationships between learner autonomy, learner engagement, and academic performance among Cambodian EFL university students (Figure 1). This framework is based on a thorough review of literature and empirical studies.
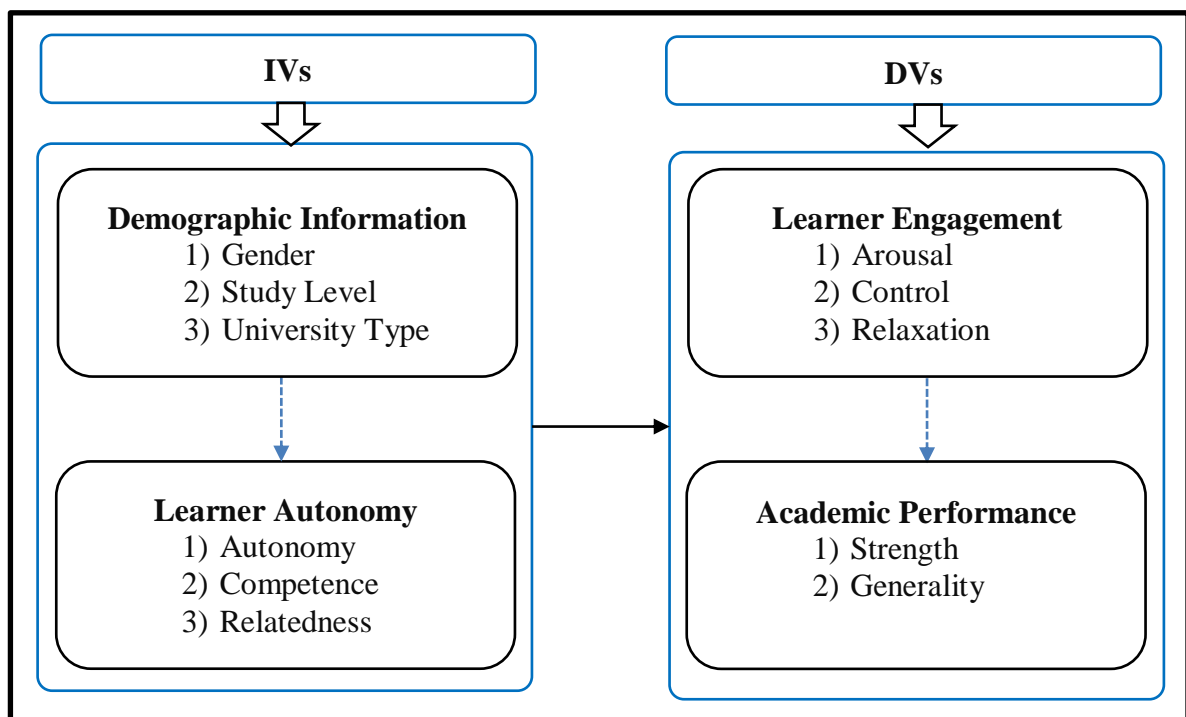

Figure 1. Conceptual Framework

As illustrated in Figure 1, the framework comprised four key components:
1) **Demographic Variables:** This includes three variables—gender, study level (2nd to 4th year), and university type (public/private)—to assess demographic information and

examine differences in learner autonomy, engagement, and academic performance across these groups.

2) **Learner Autonomy:** Measured using Self-Determination Theory (SDT), which identifies three dimensions: autonomy, competence, and relatedness.

3) **Learner Engagement:** Assessed through Flow Theory, focusing on three dimensions: arousal, control, and relaxation.

4) **Academic Performance:** Evaluated using Self-Efficacy Theory, which includes two dimensions: strength and generality.

According to the conceptual framework, learner autonomy and engagement are positively connected, meaning that greater autonomy results in higher levels of engagement. Additionally, autonomy and engagement are expected to favour academic performance, meaning that students who are more engaged and autonomous will perform better academically (Figure 1). This paradigm provides a thorough grasp of the variables influencing academic performance, learner autonomy, and learner engagement among EFL university students in Cambodia.

3. METHOD

This study used a quantitative approach, which focuses on statistical data rather than subjective opinions and necessitates lengthy data collecting utilizing standardized approaches that produce generalized samples [15]. Additionally, random sampling—especially a clustered sampling technique—was employed to reduce sample bias and guarantee correct answers to the research questions. This method followed ethical research guidelines and improved generalizability. Furthermore, the sampling technique was created to capture a range of viewpoints from EFL students at different academic levels while also making data gathering easier.

Instruments

The questionnaire employed as an instrument in this study consisted of four separate sections: 1) Respondent Demographics gathered five closed-ended questions on gender, age, year level, degree, and university type. 2) Learner Autonomy had 16 items (adapted from Johnston & Finney [16] and Wang et al. [17]) assessing views of autonomy on a 5-point Likert scale to these items for their applicability to the Cambodian context; 3) Learner Engagement evaluated perceptions using 10 items on a 5-point Likert scale, adapted from Bandura [18] and Webb-Williams [19], chosen from an original 33 items; and 4) Academic Performance evaluated perceptions using 10 items on a 5-point Likert scale, adapted from Moneta [20] and Keller & Landhäußer [21], chosen from 16 items for contextual relevance. Additionally, both the Khmer and English versions of the surveys were administered.

Validating and Contextualizing the Questionnaire

The adapted items in the questionnaire were validated through evaluations by the research advisor and three panel experts—two with PhDs and one with a Master's degree in

Educational Administration, each possessing over 10 years of experience in the education sector. Their feedback was crucial in adapting the items to fit the Cambodian educational context better.

Participants

The total population consisted of 589 EFL students majoring in English at three universities in Phnom Penh, Cambodia—two private and one public—who were part of the study's target group. The 1st year students were not included since they had not yet selected a major, and respondents were in their 2nd, 3rd, and 4th years. The 108 respondents were randomly selected from each group using the procedures described by Singh & Masuku [22] and Israel [23]. In order to ensure sufficient sample size, these techniques recommend adding 10% to account for any problems with participant reach and an extra 30% to reduce non-responses.

Piloting

After translating and confirming the questionnaire, the researcher delivered it to 30 EFL students in their 3rd and 4th years at another university in Phnom Penh. This pilot study sought to test the reliability of each item and variable, utilizing quantitative results for the reliability evaluation, as shown in Table 1.

This assessment offered insights into the reliability of the questionnaire items, confirming their suitability for evaluating the desired constructs. Conducting the pilot study helped the researcher to identify and resolve any concerns, boosting the accuracy and dependability of the data for the main study.

Table 1. Reliability Test on Learner's Autonomy, Learner Engagement, and Academic Performance

Variables	Number of Items	Cronbach's Alpha
Learner Autonomy	16	.84
Learner Engagement	10	.83
Academic Performance	10	.83

For learner autonomy, Cronbach's alpha for 16 items was .84 (Table 1), demonstrating a good connection among items. For learner engagement, the alpha for 10 items was .83 (Table 1), similarly demonstrating a good association. Similarly, for academic performance, the alpha for 10 items was .83 (Table 1), demonstrating a strong connection among components. Overall, the pilot study data verified that all questionnaire items were reliable for the main research study.

Data Analysis

Once the data was collected, it was entered into the Statistical Package for Social Sciences (SPSS) Version 23. In this research, descriptive and inferential statistics were applied, including a two-tailed sample t-test and one-way ANOVA.

4. RESULTS

This section explains the results of the research and, at the same time, gives the results. The comprehensive discussion of demographic information and perception toward learner autonomy, learner engagement, and academic performance, respectively.

4.1. Demographic information

The demographic data from the survey provided a comprehensive snapshot of the 108 students who participated (Table 2).

Table 2. Gender, Age, Study Levels, Degree of Students, and University Type

Respondents	Description	No. of respondents	Percentage (%)
Gender	Male	50	46.30
	Female	58	53.70
	Total	108	100
Age	Under 18	0	0
	18-22	52	48.1
	23-26	44	40.7
	27-Up	12	11.1
	Total	108	100
Study Level	2nd Year	34	31.5
	3rd Year	29	26.9
	4th year	45	41.7
	Total	108	100
Degree	Associate degree	7	6.5
	Bachelor's degree	101	93.5
	Total	108	100
University Type	Public	33	31
	Private	75	69
	Total	108	100

Table 2 indicates a minor gender skew, with females representing 53.7% of respondents and males 46.3%. Age-wise, the largest group (48.1%) was aged 18-22, followed by 40.7% aged 23-26 and 11.1% over 27, with no responses under 18. Also, regarding academic development, 41.7% were in their fourth year, while second and third-year students comprised 31.5% and 26.9%, respectively. Most students (93.5%) were pursuing a bachelor's degree, while 6.5% were going towards an associate degree. Regarding university type, 69% attended private institutions, compared to 31% in public ones, reflecting reasons such as perceived quality and program availability. The data reflected a varied population of students largely focused on bachelor's level education in private universities.

4.2. Perception toward learner autonomy, learner engagement, and academic performance

This section explores the findings of a study that examined Cambodian EFL university students' perceptions of learner autonomy, engagement, and academic performance. The study investigated these perceptions concerning three factors: gender, study levels, and university type, respectively.

Gender

This study explored gender variations in learner autonomy, learner engagement, and academic performance among Cambodian EFL students. An independent-sample t-test examined these factors between male and female students (Table 3).

Table 3. Perception Toward Learner Autonomy, Learner Engagement, and Academic Performance Based on Gender

Gender	Male (n =50)		Female (n=58)		t	df	P-value
	M	SD	M	SD			
1. Learner Autonomy	59.26	8.81	56.18	6.01	2.13	106	.03
2. Learner Engagement	37.70	5.21	35.55	4.53	2.28	106	.02
3. Academic Performance	36.38	5.33	33.18	4.28	3.44	106	<.001

Note. *Significant at the .001 level (2-tailed).*

According to Table 3, the findings revealed statistically significant disparities between male and female students across all three factors. Male students displayed more learner autonomy (M = 59.26, SD = 8.81) than female students (M = 56.18, SD = 6.01), $t(106) = 2.13$, $p = .03$. Similarly, male students reported stronger learner engagement (M = 37.70, SD = 5.21) compared to female students (M = 35.55, SD = 4.53), $t(106) = 2.28$, $p = .02$. Additionally, male students had higher academic performance scores (M = 36.38, SD = 5.33) than female students (M = 33.18, SD = 4.28), $t(106) = 3.44$, $p < .001$. These data implied that male Cambodian EFL students view themselves as having better learner autonomy, learner engagement, and academic performance than their female counterparts. Contributing factors may include cultural background, sample size, and measurement tools.

Study Levels

This study evaluated the association between study level (2nd, 3rd, and 4th years) and learner autonomy, engagement, and academic performance among Cambodian EFL students. A one-way ANOVA was applied to evaluate these features across the three study levels (Table 4).

Table 4. Perception Toward Learner Autonomy, Learner Engagement, and Academic Performance Based on the Study Levels

Study Levels	df	Sum of Squares	Mean Square	F	P-Value
Learner Autonomy					
Between Groups	2	242.49	121.24	2.16	.12
Within Groups	105	5873.17	55.93		
Total	107	6115.66			
Learner Engagement					
Between Groups	2	39.49	19.74	.80	.45
Within Groups	105	2593.27	24.69		
Total	107	2632.76			
Academic Performance					
Between Groups	2	40.59	20.29	.79	.45
Within Groups	105	2677.41	25.49		
Total	107	2718.00			

The findings in Table 4 indicated that there were no statistically significant changes in learner autonomy, learner engagement, or academic performance dependent on the levels of study. The *F*-statistic for learner autonomy was 2.16 ($p = .12$), for learner engagement, it

was .80 (p = .45), and for academic performance, it was .79 (p = .45). These data showed that study levels did not significantly influence Cambodian EFL students' perceptions of learner autonomy, learner engagement, or academic performance. This may result from factors such as the specific levels compared, the study context, and the assessment measures used.

University Type

This study examined the relationship between university type (public vs. private) and learner autonomy, engagement, and academic performance among Cambodian EFL students. A one-way ANOVA was used to compare these factors across the two types of universities (Table 5).

Table 5. Perception Toward Learner Autonomy, Learner Engagement, and Academic Performance Based on the University Type

University Type	df	Sum of Squares	Mean Square	F	P-Value
Learner Autonomy					
Between Groups	1	452.51	452.51	8.47	.00
Within Groups	106	5663.15	53.42		
Total	107	6115.66			
Learner Engagement					
Between Groups	1	.17	.17	.00	.93
Within Groups	106	2632.59	24.83		
Total	107	2632.76			
Academic Performance					
Between Groups	1	53.45	53.45	2.12	.14
Within Groups	106	2664.54	25.13		
Total	107	2718.00			

According to Table 5, the results demonstrated a statistically significant difference in learner autonomy based on university type. Students at private universities reported higher learner autonomy (M = 62.34, SD = 7.92) than those at public universities (M = 54.76, SD = 8.35), F(1, 106) = 8.47, p = .00. However, no significant variations were detected in learner engagement (F(1, 106) = .00, p = .93) or academic performance (F(1, 106) = 2.12, p = .14) based on university type. These data demonstrated that while university type considerably influences Cambodian EFL students' perceptions of learner autonomy, it does not significantly influence their perceptions of learner engagement or academic performance. This may relate to the specific types of universities, the study atmosphere, and the assessment measures utilized.

This section studied paired comparisons of learner autonomy, learner engagement, and academic performance between private and public universities among Cambodian EFL students. Descriptive statistics and one-way ANOVA were performed to compare the two university types on these characteristics (Table 6).

Table 6. Each Pair Comparison in Perception Toward Learner Autonomy, Learner Engagement, and Academic Performance Based on the University Type

University Type	Public (n =33)		Private (n=75)		df	F	P-value
	M	SD	M	SD			
1. Learner Autonomy	60.69	7.73	56.25	7.11	106	8.47	.00
2. Learner Engagement	36.60	5.85	36.52	4.55	106	.00	.93
3. Academic Performance	35.72	5.41	34.20	4.82	106	2.12	<.14

According to Table 6 revealed significant differences in learner autonomy between Cambodian EFL students at public and private universities, with public university students scoring higher (M = 60.69, SD = 7.73) than private students (M = 56.25, SD = 7.11), as shown by a significant ANOVA result (F = 8.47, $p < .01$). Learner engagement scores are similar for both groups (public: M = 36.60, SD = 5.85; private: M = 36.52, SD = 4.55), with no significant difference (F = .00, $p = .93$). Academic performance also indicates a minor, non-significant difference (F = 2.12, $p = .14$), with public students scoring marginally higher (M = 35.72, SD = 5.41) than private students (M = 34.20, SD = 4.82).

In summary, these data revealed that public university students in Cambodia have much higher learner autonomy compared to their private university classmates, although both groups exhibit equal levels of learner engagement and academic success. This showed that university type may influence autonomy but not engagement or performance. Therefore, regarding the research question, Cambodian EFL university students showed similar levels of learner engagement and academic performance across study levels. However, gender and university type influenced perceptions of learner autonomy, with male students and those at certain universities reporting greater autonomy.

5.   DISCUSSION

This section discussed the findings of a study that examined Cambodian EFL university students' perceptions of learner autonomy, engagement, and academic performance concerning three factors: gender, study levels, and university type—with the existing findings, respectively.

Gender

The findings demonstrated that male Cambodian EFL students perceive themselves as having better learner autonomy, engagement, and academic performance than their female counterparts, presenting a significant lens through which to evaluate gender dynamics in education. These findings corresponded with the research by Win & Kálmán [24], which demonstrated insignificant gender differences in learner autonomy and engagement across different settings. This showed that, while some research found a distinct discrepancy, other studies highlighted a trend where gender does not greatly influence educational perceptions, particularly in certain cultural contexts.

Conversely, the findings contrasted with research by Oussou et al. [25] and Luo et al. [26], which revealed equivalent levels of autonomy readiness and academic performance among male and female EFL students. These contrasting results underline the complexity of gender dynamics in education and demonstrate that contextual variables, including cultural norms, educational practices, and individual experiences, may alter the relationship between gender and academic performance.

Study Levels

The findings indicated that study levels did not significantly influence Cambodian EFL (English as a Foreign Language) students' perceptions of learner autonomy, learner engagement, or academic performance, raising important questions regarding the relationship between educational stages and these critical educational constructs. The findings were comparable with the research by Pang and Veloo [27], which also demonstrated the minimal impact of study levels on learner autonomy and engagement. This implied a prospective trend where, within particular contexts, academic performance may not automatically boost perceptions of autonomy or learner engagement.

However, these results were inconsistent with the findings of Ahmed [28], who revealed substantial diversity in learner engagement and association with academic performance across different study levels. Ahmed's findings highlighted that while the study levels may show minimal effects in certain contexts, other research revealed that learner engagement greatly influences academic performance, suggesting that engagement strategies could be more crucial than the level of study itself.

University Type

The findings revealed that university type significantly influences Cambodian EFL students' perceptions of learner autonomy but does not significantly affect their perceptions of learner engagement or academic performance, providing vital insights into the educational context. The findings resonated with earlier research that underlines the relevance of the university setting in developing learner autonomy. For instance, studies by Rahman and Sohel [29] and Hanh [30] illustrated how supportive educational environments can develop a sense of autonomy among students, matching the results of the current study.

However, these findings contrasted with the study of Alzaanin [31], which implied that public universities may provide a stronger environment for boosting learner engagement and academic performance. This mismatch raises crucial questions regarding how diverse university environments influence autonomy, engagement, and academic performance.

6. CONCLUSION

This study examined Cambodian EFL university students' perceptions of learner autonomy, learner engagement, and academic performance by gender, study level, and university type. The findings demonstrated considerable inequalities based on gender and the type of university attended. Male students displayed higher autonomy, engagement, and academic performance levels than female classmates. Additionally, students from private

universities reported better perceptions of learner autonomy, although levels of engagement and academic performance were comparable across public and private universities.

Research Implications

These findings indicate the need for specific interventions to address the gender differences in perceptions of learner autonomy and engagement. Educational stakeholders should consider implementing initiatives that establish an inclusive environment, particularly for female students, to better their academic experiences.

Research Boundaries

This study is limited by its focus on a particular demographic of Cambodian EFL university students, which may not be generalizable to other contexts or educational systems. Additionally, the dependence on self-reported measures may add bias to the findings.

Future Research

Future research should employ qualitative or mixed methods to study the underlying elements influencing learner autonomy, engagement, and academic performance. Such studies could provide deeper insights into students' experiences and perceptions, contributing to a broader understanding of the educational context.

Contribution to the General Public

By shedding light on the differences in learner perspectives among Cambodian EFL students, this research gives essential information to educators, policymakers, and the general public. It underlines the significance of creating equitable educational practices that benefit all students, ultimately promoting a more inclusive learning environment.

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