Journal of World Englishes and Educational Practices
ISSN: 2707-7586
DOI: 10.32996/jweep
Journal Homepage: www.al-kindipublisher.com/index.php/jweep

JWEEP
AL-KINDI CENTER FOR RESEARCH AND DEVELOPMENT

| RESEARCH ARTICLE

Locus of Control as a Factor of Academic success among Moroccan university students

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| ABSTRACT

This paper examines the connection between the Locus of Control theory and student engagement among Moroccan university students, using survey data gathered from a sample of 130 respondents from both private and public institutions. A Likert-scale tool was employed to assess internal and external Locus of Control alignments, in addition to three aspects of students' engagement: behavioral, emotional, and cognitive. The result indicates that the student population is mainly internally oriented, with students showing a strong trust in personal effort as the key factor affecting academic success. Cognitive engagement was identified as the highest rated element of engagement, followed by emotional and behavioral engagement. An important difference was noted between students' compliance-driven behaviors, such as attendance and completion of assignments or tasks, and their level of active participation and engagement in the classroom. This study provides valuable descriptive perceptions and insights into the motivational and engagement characteristics of Moroccan university students and offers suggestions for curriculum design and teaching practices.

| KEYWORDS

Locus of Control, student engagement, cognitive engagement, behavioral engagement, emotional engagement, higher education, curriculum design, academic motivation

| ARTICLE INFORMATION

ACCEPTED: 25 April 2026 **PUBLISHED:** 05 May 2026 **DOI:** 10.32996/jweep.2026.8.3.4

1. Introduction

Academic engagement is largely seen as an important factor in influencing students' success in higher education. This engagement may include behavioral participation, emotional involvement, and cognitive investment in learning activities, and it has been associated with enhanced academic performance and professional preparedness. In business education, academic engagement is especially critical. To this end, students are required to cultivate and develop analytical skills, teamwork spirit, and competencies in real-world problem-solving. Locus of Control, a concept created by Julian Rotter in 1966, has become one of the most extensively researched psychological concepts across various fields, with over half a million scholarly citations (Nowicki & Duke, 2016). It is described as a person's generalized expectancy concerning the extent to which life outcomes are conditional on their own actions versus external forces (Rotter,1966). In a psychological orientation with respect to the outcome acknowledgement, individuals with an internal Locus of Control believe that events are dictated largely by their own behaviors and efforts, while those possessing external Locus of Control consider outcomes as determined outside of personal involvement, including luck, fate, or powerful others in the surrounding environment (Nowicki & Duke, 2016). In educational settings, this theory has shown special importance, as students' control beliefs consistently predict academic performance, persistence, and adjustment to life in college (Auliya et al., 2023; Arsini et al.,2023). Studies have shown that students who are internal are more likely than their external peers to be academically resilient, earn higher grades, and show less intention of dropping out (Arsini et al., 2023; Morelli et al., 2023). Moreover, Locus of Control interacts with further inner assets such as academic self-efficacy and resilience to influence students' capacity to overcome educational challenges and reach academic accomplishment (Aulya et al., 2023; Papoulidi & Maniadaki, 2025). This article explores this theory among Moroccan college students, emphasizing its fundamentals and relations with self-efficacy and resilience.

1.1 Problem Statement

Even though Moroccan universities serve as central catalysts for the development of national human capital, they function in a context marked by massification, limited resources, and governance concerns. Most students are part of large and open-access institutions (CSEFRS, 2018). Existing analyses mainly highlight organizational and policy aspects, causing a lack in understanding of how psychological basics, such as students' beliefs in their control and their academic adjustment, affect their persistence and success.

1.2 Research question

This paper intends to assess how Locus of Control affects academic diligence and perceived employability among Moroccan business students in open-access universities. It especially looks at whether these students have an internal or external Locus of Control and how this is reflected in their academic performance, engagement, and professional skill development. The study also explores whether Locus of Control predicts students' confidence in their future employability and career readiness, particularly in challenging settings.

2. Literature review

2.1 Locus of Control theory

The Locus of Control theory is a psychological concept that deals with generalized thoughts and beliefs that individuals have about the extent to which the results in their lives are determined by their internal actions or by external forces. The theory is derived from the social learning theory, that was presented by Julian B. Rotter in 1966, is defined as a comprehensive anticipation vis-à-vis the relationship between performance and reinforcement. People with an inner Locus of Control consider that life outcomes result mainly from their own capacities, hard work, and evaluations; however, those with an outer Locus of Control link results to influences such as luck, fate, chance, or influential surroundings (Rotter, 1966). Further investigations expanded these perspectives by underscoring the psychological and social associations with control beliefs. Lefcourt argued that locus of control impacts how individuals manage stress and interact with their surroundings and networks, thus affecting their emotional reactions and interactive consequences (Lefcourt et al., 1984). These primary values and assumptions, which shape how individuals interact with their surroundings, are closely linked to motivation and self-control, as individuals with a greater inner locus are more likely to employ efforts and persist through encounters, believing that their actions will lead to intended outcomes. Consequently, Locus of Control is seen as a significant soft skill and one's ability to grow and develop with a deep implication for success in education, job search initiatives, and the labor market (Cobb-Clark, 2015; Dweck, 2017). Locus of Control has often been seen as a rather constant personality characteristic, yet recent research indicates that it can change over time based on life circumstances. Main life happenings such as economic change, career moves, health conditions, or personal damages may change people's views on control; favorable events often reinforce internal control beliefs, and unfavorable events sometimes lead to more external positionings (Nguyen et al., 2024). The previous literature implies that Locus of Control reflects not only an unchanging psychological nature but also a dynamic theory shaped by one's life conditions and socioeconomic circumstances. To understand Locus of Control, it is essential to understand how people perceive success and failure, persevere through challenges, and eventually structure their life paths through the principle that their determinations matter.

2.2 Locus of Control theory in education

Locus of Control has gained an important consideration in education in general due to its great influence on students' success. Students with inner motivation attribute their success to their hard work, dedication, and skills, whereas students with external motivation consider their success to be a result of luck, fate, or external powers (Rotter, 1966; Zaidi, 2013). Behavior and character are traditionally linked to academic motivation, dedication, and performance; students with internal Locus of Control are more likely to show strength, efficacy, and adaptation in dealing with academic challenges (Animba et al; Arsini et al. 2023). Previous research about gender and Locus of Control across different educational levels showed varying results. Males are more likely to be internally motivated when it comes to academic achievements (Zaidi, 2013). On the other hand, there is no evidence leading to categorizing academic motivation by gender (Chakraborty et al., 2023).

In the higher education context, college students undergo a change in teaching and instructing methods that are different from high school, and due to the rapid transformation, students with internal Locus of Control show readiness, flexibility, and f incorporation with the change (Rosyanti et al. 2025). Moreover, internal Locus of Control encompasses academic success in building a strong personality with emotional well-being that seeks career development (Zaidi, 2013; Chakraborty et al.,2023).

2.3 Moroccan college students' motivation and challenges.

To align educational inputs and results with the Moroccan labor market needs, the "Vision 2023" has made Moroccan higher education system undergo noticeable changes in recent years (Elmouhib et al., 2024). Moroccan students' motivation, self-efficacy and challenges greatly impact their academic outcomes and well-being through years of studies; there is a big shift in their motivation and desire between the first year and the last year. (Omari et al., 2021). Due to the COVID19 pandemic, Moroccan students were generally introduced to distance learning. The efficacy of virtual classes has generated an attitude of skepticism among students; they found digital course inputs difficult to understand in comparison with physical classes (Elkhayma, 2021). In addition to workload and exams, financial difficulties and living circumstances, reparent additional stress on Moroccan students that lead to a negative impact on their motivation and academic achievements (Elmouhib et al., 2024). In addition, college life and interacting with faculty members play a pivotal role in students' motivation. Students who consider their professors as compassionate, encouraging, and supportive show a higher level of self-efficacy than students who don't (Omari et al. 2021).

3. Methodology

This study uses a quantitative research method. In order to measure college students' stress and associated influences, a descriptive survey is used. In social sciences, the majority of studies use surveys to thoroughly gather data from participants about their positions, insights, and experiences in a systematized format (Creswell &Creswell, 2018).

Data in this study is gathered individually through an online questionnaire. The Likert-Scale instrument is adopted to enable respondents to indicate their degree of agreement or experience along a range. The Likert scales are widely considered effective in measuring positions and opinions in studies and research related to educational fields (Likert, 1932).

The selected research design is suitable for this study as it allows collecting measurable data related to academic, financial, and emotional factors leading to impacts on college students' academic path and post-graduation, so facilitating a numerical analysis and readings.

3.1 Sampling

This study uses convenience sampling. Participants are chosen based on their accessibility and readiness to take part in this study. This sampling method is largely used in educational settings where random sampling is impossible due to time and accessibility limitations (Etikan et al., 2016).

The target population are Moroccan students enrolled in different higher education programs in private and public institutions across Morocco. The link to the online questionnaire is shared by their professors, online platforms such as emails, and social media students' groups, to reach a large number of respondents without geographical constraints (Zindel, 2023).

Though convenience sampling may limit the generalizability of the results, it still serves appropriately for exploratory research that targets recognizing arrays and trends in students' experiences (Creswell & Creswell, 2018).

3.2 Data collection

Data is gathered via a structured online survey generated with Google Forms. The tool is divided into multiple sections, which include demographic details, factors contributing to academic stress, Financial and social stressors, along with psychological and emotional reactions to stress. Entries are measured using a 5-point Likert scale varying from strongly disagree to strongly agree, permitting participants to show the strength of their experiences. Likert scales are perceived as effective tools to capture attitudes and can be combined into merged variable quantity for statistical investigation (Boone & Boone, 2012)

3.3 Participants

The participants in this study represent students enrolled in higher education private and public institutions. They represent different academic levels and fields of study backgrounds. Their participation is voluntary. No personally identifiable data is gathered, confirming the privacy and devotion to ethical research principles (Bryman, 2016).

4. Presentation and discussion of results

4.1 Sample demographics

This investigation was conducted with 130 Moroccan college students. The state is represented by ENCG Marrakesh (17.7%) and *Faculté Polydisciplinaire de Safi* (18.5%) on one side and private institutions (EMSI, UPM, L'École *Supérieure de Psychologie) on the other*. 65 students from each college type were involved for a balanced representation. 50% of the respondents are aged

between 18 and 22, whereas the other half falls within the category between 23 and 28 years or older. 64.6% of the students are female, while male participants are represented by 35.4%.

Variable	Category	N	%
Age	18-22	65	50.0%
	23-27	29	22.3%
	28 and above	36	27.7%
Gender	Female	84	64.6%
	Male	46	35.4%
College Type	Private	65	50.0%
	state	65	50.0%
Year of Study	1st	17	13.1%
	2nd	9	6.9%
	3rd	20	15.4%
	4th	77	59.2%
	5th	7	5.4%

Table 1. Demographic Profile of the sample (N = number)

4.2 Locus of Control

The Moroccan students 'Locus of Control (LOC) was captured using seven items on a Likert scale, differentiating between internal LOC, in which students believe that their academic results are a consequence of their individual efforts, and external LOC, is believed that external influences dictate their academic success.

Item	Mean	Agree	Neutral	Disagree	Type
My own efforts determine my Academic success.	3.94	71.5%	18.5%	10.0%	**Internal**
I can achieve good grades by planning and hard work.	4.20	79.2%	9.2%	11.5%	**Internal**
I take responsibility for success and failure.	4.07	76.2%	15.4%	8.5%	**Internal**
I can control outcomes through my own choices.	3.71	63.1%	24.6%	12.3%	**External**
My poor performance is a result of external circumstances	3.44	47.7%	32.3%	20.0%	**External**
Teachers' moods influence my grades more than my effort.	3.07	43.1%	23.8%	33.1%	**External**
Luck plays a big role in my achievements.	2.65	23.8%	34.6%	41.5%	**External**
Internal LOC average		3.98			
External LOC average		3.05			

Table 2. Locus of Control Items: Means and answers Distribution

4.3 Internal Locus of Control

The internal LOC revealed a high level of agreement over the sample. The statement 'I can achieve good grades if I plan and work hard' yielded the highest mean score among all LOC items (M = 4.20), with 79.2% of students either agreeing or strongly agreeing, while only 11.5% expressed divergence. This shows a powerfully held belief that intentional and organized effort directly relates to academic success.

The statement 'I take responsibility for my successes and failures in school' was confirmed by 76.2% of participants (M=4.07), which confirms a general sense of personal responsibility. Likewise, 'My academic success is primarily influenced by my own effort 'attained 71,5 % agreement rate (M = 3.94), while 'I can influence the outcomes of my academic tasks through my decisions' attracted 63.1% agreement (M = 3.71). The mean for the internal LOC dimension averaged across the four internal items, yet stands at 3.98 out of 5.00, suggesting a relatively strong internalized orientation within the sample.

4.4 External Locus of Control

External LOC items disclose an expressively different viewpoint. The statement 'Luck plays a big role in my academic achievements' was the most insistently rejected item throughout the entire LOC scale (M=2.65); 41.5% of the respondents disagreed or strongly disagreed, and 34.6% remained neutral, whereas only 23.8% expressed agreement. This result highlights the internal alignment of students, which does not credit academic success to luck.

The statement 'Teacher moods and opinions have more influence on my grades than my actual work' gave a more apportioned response display (M = 3.07); 43.1% of respondents agreed, while 33.1% disagreed, and 23,8% remained neutral. This significant subgroup identifying the impact of teacher influence probably shows real experiences of personal grading rather than ordinary passive attribution, necessitating consideration in educational debates.

The statement 'When I perform poorly, it is usually due to circumstances beyond my control' generated an adequate average score of 3.44, with 47.7% of respondents in agreement and 32.3% stayed neutral. The important level of neutrality vis-à-vis this statement indicates that students somewhat admit contextual factors relevant to their failures, while not entirely showing blame externally. Furthermore, the mean score for the external LOC feature, which is positioned at 3.05, is significantly lower than the internal mean of 3.98, thus strengthening the concept of a mainly internal LOC among respondents.

4.5 Student Engagement

The student's engagement was evaluated based on three theoretically established scopes:

Behavioral, Emotional, and Cognitive, with each aspect being measured through three Likert scale items which can be found in table 3.

Dim.	Item	Mean	Agree	Neutral	Disagree
BE	I actively participate in class discussions	3.39	47.7%	32.3%	20.0%
BE	I complete all assignments on time	3.91	67.7%	17.7%	14.6%
BE	I attend classes regularly and pay attention	3.92	71.5%	17.7%	10.8%
EE	I feel excited about learning new concepts	4.08	75.4%	13.1%	11.5%
EE	I enjoy the subjects I am studying	3.75	63.1%	22.3%	14.6%
EE	I feel motivated to do well in my studies	3.88	68.5%	16.9%	14.6%
CE	I try to connect new knowledge	4.14	77.7%	15.4%	6.9%
CE	I use different strategies to understand material	4.00	73.1%	17.7%	9.2%
CE	I reflect on my learning and try to improve	4.05	76.9%	13.8%	9.2%
Behavioral Engagement average			3.74		
Emotional Engagement average			3.90		
Cognitive Engagement average			4.06		

Table3. Students Engagement Items: Means and Response Distribution. BE: Behavioral engagement, EE: Emotional Engagement, CE: Cognitive Engagement

Behavioral engagement indicates noticeable academic performance. The statement 'I attend classes regularly and pay attention'(M= 3.92, 71.5% agreement) and 'I complete all assignments on time'(M= 3.91, 67.7% agreement) both receive high scores, showing strong attendance and task-completion standards in the sample. In contrast, 'I actively participate in class discussions' represents the least favorable item across the entire engagement scale (M= 3.39), with only 47,7% agreement and a fairly high neutral response rate (32,3%). This difference between attendance and active verbal participation is a noteworthy observation. The interrogated students seem to constantly attend and submit their work; however, they are less leaning towards engaging in oral discussions, a tendency that supports the existing literature on passive learning environments in lecture-oriented educational settings.

Emotional engagement implicates students' emotional connection to their environment. The statement 'I feel excited about learning new concepts' stands out in this range (M = 4.08, 75.4 % agreement), with 50.8% taking the highest response of 'Strongly Agree', which represents the largest percentage among all nine engagement items. This shows that students possess a sincere intellectual curiosity that serves as a motivational quality. 'I feel motivated to do well in my studies'(M = 3.88, 68.5% agreement) and 'I enjoy the subjects I am studying' (M = 3.75, 63.1% agreement) both show a positive leaning. It is imperative to note that the enjoyment item has the highest disagreement rate within the emotional engagement category (14.6%), suggesting

that while the motivation to achieve success remains strong, satisfaction with the teaching content is not generally experienced as a factor that has direct implications for curriculum development and the application of subjects.

Cognitive engagement is positioned as the highest aspect overall, including deep managing and metacognitive learning approaches. The statement 'I try to connect new knowledge to what I already know' leads the total engagement scale (M = 4.14, 77.7% agreement), with 47,7 % of respondents strongly agreeing. This signifies a largely active and constructivist learning approach among most participants. 'I reflect on my learning and strive to improve' (M= 4.05, 76.9% agreement) promotes affirmation that the sample reveals significant metacognitive awareness. These results suggest that students are engaging cognitively, even when behavioral or institutional boundaries may restrict their superficial demonstration of engagement.

4.6 Discussion

The findings together denote a steady student profile distinct by a strong Internal Locus of Control and significant cognitive engagement, a finding that aligns with theoretical expectations since students who attribute their outcomes to personal effort are likely to engage more deeply in their learning (Pintrich & De Groot,1990; Rotter,1966).

More particularly, there exists A gap between reliable behavior compliance, shown by steady attendance and task completion, and a considerably lower level of active participation in the classroom. This variance suggests that the issue is less about disengagement and more about structural and cultural limitations on external expression (Fredricks et al.,2004).

In addition, students show a complex dual awareness, while they are primarily internally focused, a large number recognize teacher-related factors as partial impacts on their results. This echoes the social cognitive perspective that personal actions and environmental factors coexist (Bandura,1986).

Throughout all three scopes of engagement, cognitive and emotional resources seem to be well developed, whereas behavioral manifestation lags behind. This shows a learning environment that encourages internal engagement but does not entirely facilitate its external manifestation (Fredericks et al., 2004; Reeve, 2012).

These interpretations should be approached with caution, bearing in mind the self-report design, sample balances, and the lack of inferential statistics. These limitations should be addressed in future research that uses more different samples and formal rational analysis (Chreswell, 2014).

5. Conclusion

The Locus of Control theory offers a valuable framework that allows educators to better understand the aspects influencing student achievement and motivation. This paper aimed to investigate the relationship between Locus of Control orientations and student engagement within a Moroccan university setting, yielding a clear and informative overview. The student in this study predominantly exhibits an internal locus of control, believing that their academic success is primarily influenced by their efforts, planning, and personal accountability. This internal orientation seems to correlate closely with their elevated levels of cognitive engagement, characterized by deep processing, metacognitive reflection, and the active application of learning strategies. Emotional engagement is also notably strong, as students express genuine intellectual curiosity and a sustained drive to achieve. However, behavioral engagement presents a more complex picture, too. While students are consistently present and compliant with tasks, their active involvement in classroom discussions is significantly lacking. This observation suggests that the issue may stem more from structural and cultural constraints rather than outright disengagement. Collectively, these trends indicate a student population rich in internal resources, yet their learning environment may not fully facilitate the external scopes of that engagement. To bridge this gap, implementing more hands-on and collaborative teaching methods could significantly improve the overall quality of the educational experience. By identifying how Moroccan college students see their ability to control events in their lives, teachers can tailor their approaches to foster a more supportive learning environment that increases both academic performance and inner motivation.

Funding: This research received no external funding.
Conflicts of Interest: The authors declare no conflict of interest.

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