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Beyond borders: exploring the connection between global identity and academic self-efficacy in college students – a cross-sectional study

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Keywords

Cultural diversity
Non-nationalism
Perceived control
Student clusters
Saudi Arabia

Abstract

While increasing attention has been given to the role of identity in academic outcomes, limited empirical research has explored how a global identity relates to academic self-efficacy among college students. Therefore, this study examined the association of global identity on academic self-efficacy and its relationship with academic performance among undergraduate students in Saudi Arabia. Using a cross-sectional design, data were collected from 946 students (39.5% female; *M* = 20.8 years, *SD* = 1.3) through standardized measures of global identity and academic self-efficacy. Results showed that cultural openness (i.e. global identity component) was positively associated with all dimensions of academic self-efficacy, whereas non-nationalism showed negative associations. Perceived control emerged as a significant mediator between both global identity components (i.e., cultural openness and non-nationalism) and academic performance as measured by Grand Point Average. Additionally, gender did not moderate the effect of cultural openness. In contrast, gender moderate the relationship between non-nationalism and perceived control, which was more pronounced in females. These findings highlight the complex role of global identity in academic contexts and suggest that fostering global perspectives –while supporting students' academic confidence– may enhance academic success.

Más allá de las fronteras: explorando la conexión entre la identidad global y la autoeficacia académica en estudiantes universitarios – un estudio transversal

Palabras clave

Diversidad cultural
No-nacionalismo
Control percibido
Agrupaciones estudiantiles
Arabia Saudita

Resumen

Aunque se ha prestado creciente atención al papel de la identidad en los resultados académicos, existe poca investigación empírica sobre cómo la identidad global se relaciona con la autoeficacia académica en estudiantes universitarios. Este estudio examinó la asociación entre la identidad global y la autoeficacia académica, así como su relación con el rendimiento académico en estudiantes de grado en Arabia Saudita. Utilizando un diseño transversal, se recopilaron datos de 946 estudiantes (39.5 % mujeres; *M* = 20.8 años, *DE* = 1.3) a través de instrumentos estandarizados de identidad global y autoeficacia académica. Los resultados mostraron que la apertura cultural (un componente de la identidad global) se asoció positivamente con todas las dimensiones de la autoeficacia académica, mientras que el no-nacionalismo mostró asociaciones negativas. El control percibido fue un mediador significativo entre ambos componentes de la identidad global (apertura cultural y no-nacionalismo) y el rendimiento académico, medido por el promedio general de calificaciones. El género no moderó la relación entre apertura cultural y autoeficacia, pero sí moderó la relación entre no-nacionalismo y control percibido, siendo más fuerte en mujeres. Estos resultados destacan la importancia de fomentar perspectivas globales para fortalecer la confianza y el éxito académico.

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In today's increasingly interconnected world, the idea of global identity, the sense of belonging to a wider human community that goes beyond national, cultural, or ethnic boundaries (Yoruk, 2022) has emerged as an important concept in psychology. Global identity includes both personal and ideological dimensions that enable individuals to connect with a shared human experience and a global lifestyle (Branch et al., 2000; Tu & Zhang, 2012). This identity does not displace one's national or cultural identity; rather, it complements them, creating a multidimensional sense of self that allows individuals to participate meaningfully in both local and global communities (Grimalda et al., 2023; Safa et al., 2024; Westjohn et al., 2019). Importantly, individuals with a well-developed global identity tend to exhibit openness to cultural diversity, empathy, and a sense of moral obligation to address global challenges characteristics that support both social engagement and academic motivation (Jing, 2023).

To conceptualize how global identity functions in the psychological domain, researchers have identified three core dimensions: cognitive, behavioral, and attitudinal, that together shape how individuals think, act, and feel in relation to the global community (Barth et al., 2015; Belanche et al., 2017). The cognitive dimension includes knowledge of global issues, cultural awareness, and understanding global systems, international relations, and the impact of future perspectives (Abdelrheem & Bendania, 2022; Mohamed & Bendania, 2024). The behavioral dimension refers to actions reflecting a global identity, such as participating in global civic activities, advocating for global issues, and adopting sustainable practices that benefit the world community (Pong et al., 2023). These behaviors demonstrate a commitment to contributing positively to global well-being (Mohamed et al., 2024). Meanwhile, the attitudinal dimension involves values such as global responsibility, justice, and openness to diversity.

The psychological foundation of global identity can be further understood through Self-Categorization Theory (SCT), developed by Turner and colleagues (Turner et al., 1987). SCT proposes that individuals organize their self-concept through different levels of categorization ranging from personal identity to broader social identities such as nationality or global citizenship (Turner et al., 1994). These categorizations are fluid and context-dependent, and they shape how individuals perceive themselves and interact with others (Hornsey, 2008). Therefore, global identity represents a higher order of social identity that allows individuals to go beyond national identity and engage with global human concerns.

Recent studies demonstrate the growing importance of global identity in education and social behavior. For instance, Jaiswal et al. (2025) found that female students showed significantly higher levels of intercultural competence and adaptability than males. Wong et al. (2019) examined gender differences in identity concerns among sexual minority young adults in China. The findings reveal that gender significantly impacts identity concerns, highlighting the importance of intersectionality in understanding the experiences of sexual minorities. Hirai et al. (2015) found that female college students in the United States scored higher on measures of intercultural sensitivity and global mindedness compared to males. These gender-based differences suggest that gender may serve as a moderate variable in the development of global identity and its impact on educational outcomes. Carmona et al. (2024) further emphasized the role of global identity as a psychological bridge between knowledge, critical thinking, empathy, and global engagement. In their findings, global identity mediated the relationship between cognitive skills and prosocial behavior, especially in critical inquiry. This evidence points to identity-based interventions as key tools in translating cognitive awareness into behavioral engagement, with implications for developing both global citizenship and academic skills. This reinforces the idea that hybrid or global identities can serve as stabilizing forces in diverse educational environments. These results are in line with the study of Etzkorn and Reese (2022) that Global Citizenship Education (GCE) has been discussed as a framework for developing global identity through justice, sustainability, and critical thinking. GCE encourages students to become active global participants. GCE not only encourages global awareness but also builds competencies linked to academic success. Bagnall (2015) argues that students who engage with global issues tend to demonstrate stronger critical thinking and academic self-efficacy.

Academic self-efficacy refers to an individual's belief in their capacity to execute academic tasks successfully. According to Bandura's social cognitive theory, self-efficacy beliefs directly influence behavior, motivation, and academic performance (Bandura, 1997). Academic self-efficacy affects students' engagement, learning strategies, and resilience in the face of academic challenges (AL-Qadri et al., 2024; Celik, 2022; Zimmerman, 2000).

Bandura (1997) identifies four sources of self-efficacy beliefs that include: mastery experiences, vicarious experiences, verbal persuasion, and physiological and emotional states. Mastery experiences, or personal achievements, are considered the most influential source since they provide direct evidence of one's capabilities (Bandura, 1997). Research has identified several factors that play a major role in shaping academic self-efficacy such as personal, support, and contextual variables. Personal variables such as gender (Huang, 2013), support variables including encouragement from family, peers, and teachers (Fan & Williams, 2010), and contextual variables like school climate and teaching quality (Wang & Holcombe, 2010). While global identity provides students with a broader sense of purpose and social responsibility, self-efficacy translates these values into concrete academic behaviors. Studies have shown that academic self-efficacy plays a mediating role in the relationship between identity and academic achievement. For example, He et al. (2023) examined whether academic self-efficacy mediates the relationship between professional identity and academic achievement among university students. The findings indicated that academic self-efficacy partially mediated this relationship, suggesting that a strong professional identity enhances students' belief in their academic capabilities, which in turn positively affects their academic performance.

The present study

This study aims to address a gap in literature by examining the relationships between global identity, academic self-efficacy, and academic performance among undergraduate students in Saudi Arabia. The study tests five main hypotheses. First (H1), it is hypothesized that the two components of global identity –cultural openness and non-nationalism– are significantly related to the four dimensions of academic self-efficacy. Second (H2), academic self-efficacy is expected to mediate the relationship between cultural openness and academic performance (measured by GPA). Third (H3), academic self-efficacy is also expected to mediate the relationship between non-nationalism and academic performance. In addition to these mediation effects, the study explores the moderating role of gender. It is hypothesized (H4) that the positive relationship between cultural openness and academic self-efficacy will be stronger for females than male students. Finally (H5), the negative relationship between non-nationalism and academic self-efficacy is expected to be stronger among male than female students.

Method

Participants

A total of 946 (39.5% females) undergraduate students between 19 to 24 years (M = 20.8 years; SD = 1.3) took part in the study. Students were selected from four universities in Saudi Arabia.

Participants were enrolled in various academic programs, including Science and Engineering (70%), Business Studies (20%), and Social Sciences (10%). The sample represented a different study level with 4% freshman, 17% sophomore, 37% Junior, and 42% senior students.

Procedures

This study uses a cross-sectional survey design. Data were collected during the winter semester of the 2022-2023 academic year, through an online questionnaire distributed to undergraduate students enrolled in universities across Saudi Arabia. Participants were recruited using convenience sampling through institutional mailing lists, student groups, and social media platforms. Before beginning the survey, participants were informed about the study's purpose, confidentiality, and their right to withdraw at any time. Informed consent was obtained electronically. The study followed the ethical guidelines of the American Psychological Association (APA) for research with human participants.

Instruments

Global Identity Scale (GIS). The 10-item *Global Identity Scale* (Türken & Rudmin, 2013) assesses identification with a global community through two subdimensions: cultural openness (e.g., "I enjoy learning about different cultures") and non-nationalism (e.g., "I consider myself more a citizen of the world than of any one nation"). The scale includes five negatively worded items, which were reverse-coded during analysis. Two of these items were removed due to low internal consistency. The scale was translated into Arabic using a back-translation method to ensure linguistic and cultural accuracy. Responses were recorded on a 5-point Likert scale (1 = *Strongly disagree* to 5 = *Strongly agree*). Higher scores on the cultural openness subscale reflect greater interest in cultural diversity, while higher scores on the non-nationalism subscale indicate reduced national attachment. The revised scale showed acceptable reliability (total scale α = .74, ω = .75; cultural openness α = .66, ω = .67; non-nationalism α = .79, ω = .78). Exploratory factor analysis (EFA) on subsample A (n = 473) showed a clear two-factor structure that explained 45.69% of the total variance (see, Appendix 1). The two factors were not based on whether items were worded positively or negatively but instead reflected meaningful and consistent themes. There was little overlap between the factors, and the correlation between them was weak. Confirmatory factor analysis (CFA) using subsample B (n = 473) supported this two-factor model and showed good fit with the data (χ^2 = 38.02, CMIN/DF = 2.24, CFI = .977, TLI = .961, RMSEA = .05), indicating that the structure was valid (Hu & Bentler, 1999).

Academic Self-Efficacy Scale (ASES), developed by Dullas (2018), originally consisted of 62 items aimed at measuring students' confidence in their academic abilities. In this study, 40 items were selected to focus on four dimensions of academic self-efficacy: perceived control, competence, persistence, and self-regulated learning, with 10 items per dimension. The scale was translated into Arabic using back-translation to ensure cultural and linguistic accuracy. Responses were rated on a 5-point Likert scale (1 = *Strongly disagree* to 5 = *Strongly agree*), with higher scores indicating greater academic self-efficacy. The Arabic version showed excellent internal consistency (α and ω = .93), with subscale reliabilities ranging from α = .78 to .86. Exploratory factor analysis (EFA) on subsample A revealed a four-factor structure (see, Appendix 1), which was confirmed by confirmatory factor analysis (CFA) on subsample B, showing good model fit (χ^2 = 38.02, CMIN/DF = 2.23, CFI = .917, TLI = .921, RMSEA = .04). These results support the validity of the 40-item Arabic version of the ASES.

Grade Point Average (GPA). Academic performance was measured using self-reported cumulative GPA on a 5-point scale, consistent with the Saudi public university system. GPA was treated as a continuous variable and used as the main indicator of academic achievement. The average GPA was 3.18 (SD = 1.03).

Data analysis

Data was analyzed using IBM SPSS 28.0 and Amos 28.0. Descriptive statistics and Cronbach's alpha were used to assess reliability. Pearson correlations examined relationships among global identity, academic self-efficacy, and GPA. Multiple regression tested the direct effects of global identity components on academic self-efficacy (H1). To ensure the reliability of these regres-

sion results, multicollinearity was assessed by examining the Variance Inflation Factor (VIF) values. A VIF value below 3.3 is acceptable, indicating the absence of significant multicollinearity among the predictor variables (Kock & Lynn, 2012). Mediation analyses (H2 and H3) were conducted using PROCESS Model 4, with four self-efficacy subfactors as parallel mediators. Moderation analysis tested whether gender moderated the relationships between global identity and academic self-efficacy (H4 and H5). All analyses used a significant level of $p < .05$ and 5,000 bootstrap samples to estimate confidence intervals for indirect effects.

Results

Descriptive analysis was conducted to examine the relationships between global identity components and the four dimensions of academic self-efficacy. Table 1 presents the Pearson correlation coefficients between the variables. Cultural openness was positively correlated with all academic self-efficacy dimensions, while non-nationalism showed significant negative correlations.

Multiple linear regression analysis was performed to examine the associated effects of cultural openness and non-nationalism on the four dimensions of academic self-efficacy (H1). All VIFs were at or below 1, indicating that multicollinearity was not a concern. Results are presented in Table 2. Cultural openness was positively associated with perceived control, competence, persistence, and self-regulated learning, supporting its positive contribution to academic self-efficacy. Conversely, non-nationalism showed significant negative associations with the same dimensions.

Table 1

Correlation matrix between global identity and academic self-efficacy factors

	Cultural openness	Non nationalism	Perceived control	Competence	Persistence
Non-nationalism	.02				
Perceived	.26*	-.4**			
Competence	.27*	-.29*	.67**		
Persistence	.23*	-.35**	.59**	.61**	
SRL	.23*	-.29*	.6**	.61**	.71**

* $p < .5$; **$p < .01$

Table 2

Multilinear regression analysis for global identity on academic self-efficacy

Dependent Variable	Predictor	B	SE	*p*	VIF
	Constant	37.07	0.79	< .001	—
	Non-nationalism	-0.6	0.04	< .001	1
Perceived control	Cultural openness	0.69	0.07	< .001	1
	R^2	0.23			
	Model *p*			.01	
	Constant	33.57	0.83	< .001	—
	Non-nationalism	-0.44	0.04	< .001	1
Competence	Cultural openness	0.72	0.07	< .001	1
	R^2	0.16			
	Model *p*			.01	
	Constant	39.01	0.93	< .001	—
	Non-nationalism	-0.61	0.05	< .001	1
Persistence	Cultural openness	0.71	0.08	< .001	1
	R^2	0.18			
	Model *p*			.01	
	Constant	36.07	0.92	< .0001	—
	Non-nationalism	-0.49	0.05	< .001	1
Self-regulated learning	Cultural openness	0.65	0.08	< .001	1
	R^2	0.14			
	Model *p*			.01	

Note. SE = Standard error; VIF = Variance Inflation Factor.

A mediation analysis was conducted using Hayes' PROCESS macro (Model 4) to test whether the four dimensions of academic self-efficacy explain how cultural openness affects academic performance (H2). As shown in Table 3, the overall indirect effect was significant, $F(5,939) = 6.43$, $p < .001$, explaining 3.3% of the variance, indicating that academic self-efficacy plays a mediating role in the association between cultural openness and GPA, even though the total ($\beta = 0.02$, $SE = 0.02$, $p = .109$) and direct effects ($\beta = -0.001$, $SE = 0.02$, $p = .97$) were not statistically significant.

Among the self-efficacy dimensions, only perceived control significantly mediated the link between cultural openness and academic performance ($\beta = 0.03$, $SE = 0.02$, 95% CI [0.003, 0.06]) suggesting it plays a key role in this relationship (Figure 1). The other dimensions –competence, persistence, and self-regulated learning– did not show significant effects. This highlights the importance of perceived control in helping students turn global perspectives into academic success.

A parallel mediation analysis was conducted using Hayes' PROCESS macro (Model 4) to examine whether academic self-efficacy mediates the link between non-nationalism and academic performance (GPA) (H3). As shown in Table 4, the overall indirect effect was significant, $F(5, 939) = 9.6$, $p < .001$, explaining 4.86% of the variance. The total effect of non-nationalism on GPA was not significant ($\beta = 0.01$, $SE = 0.01$, $p = .24$), meaning there was no direct relationship without considering mediators. However, when the self-efficacy dimensions were included, the direct effect became significant ($\beta = 0.04$,

Table 3

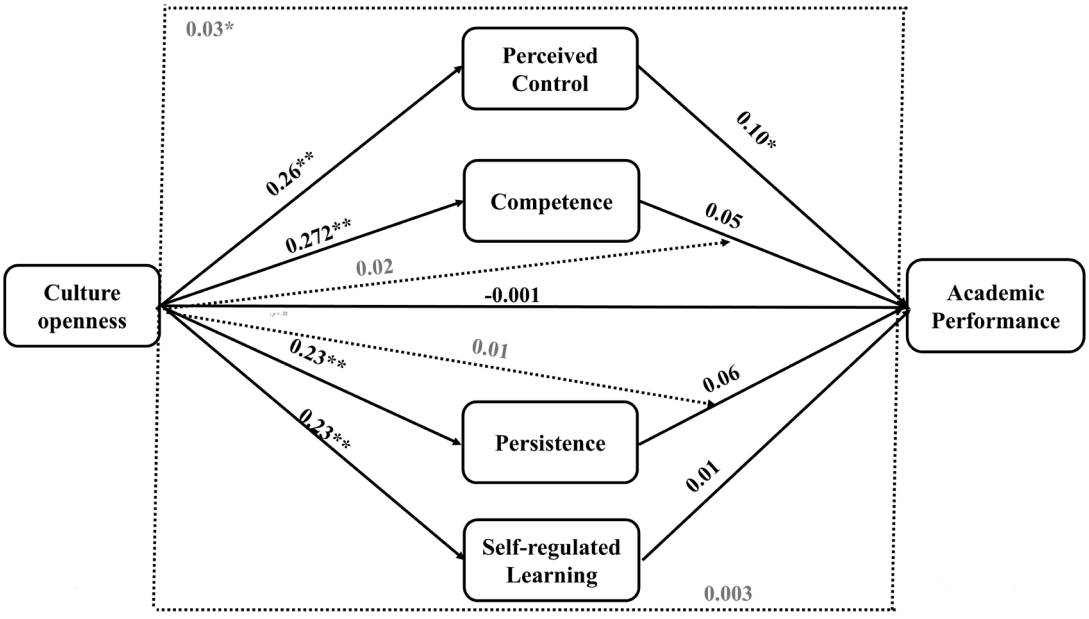
Effects of Cultural Openness on GPA via academic self-efficacy dimensions

Effect type	Pathway	Standardized β	CI	Significant?
Total effect	Cultural openness → GPA	0.05	$p = .108$	No
Direct effect	Cultural openness → GPA (with mediators)	-0.01	$p = .967$	No
Total indirect effect	Cultural openness → Mediators → GPA	0.05	95% CI [0.03, 0.08]	Yes
Indirect via perceived control	Cultural openness → Prec → GPA	0.03	95% CI [0.003, 0.06]	Yes
Indirect via competence	Cultural openness → Comp → GPA	0.02	95% CI [-0.01, 0.04]	No
Indirect via persistence	Cultural openness → Pres → GPA	0.01	95% CI [-0.01, 0.04]	No
Indirect via SRL	Cultural openness → SRL → GPA	-0.003	95% CI [-0.03, 0.02]	No

Note. Prec = Perceived Control; Comp = Competence; Pres = Persistence; SRL = Self-Regulated Learning. Indirect effects tested using 5,000 bootstrap samples: CI = Confidence Interval.

Figure 1

Direct and indirect association of culture openness and academic achievement through academic self-efficacy



Note. Solid lines for direct effects and dash lines for indirect effects.
* $p < .05$; ** $p < .01$.

SE = 0.01, $p < .001$), and the overall indirect effect was also significant (β = -0.03, *SE* = 0.01), supporting a mediation effect. Among the four dimensions, only perceived control significantly mediated the relationship. The other dimensions –competence, persistence, and self-regulated learning– did not show significant effects (Figure 2). These results suggest that perceived control plays a key role in how non-nationalism influences academic performance.

To test whether gender moderates the relationship between cultural openness and academic self-efficacy, a moderation analysis using Model 1 of the PROCESS macro for SPSS was conducted (Hayes, 2022). In this model, cultural openness was entered as the predictor, academic self-efficacy as the outcome variable, and as the moderator. The overall model was statistically significant, $F(3, 941) = 17.45$, $p < .001$, accounting for approximately 8.7% of the variance in academic self-efficacy ($R^2 = .09$). Cultural openness significantly predicted academic self-efficacy (β = 2.72, *SE* = 0.38, $t = 7.2$, $p < .001$, 95% CI [1.98, 3.47]). However, the interaction between cultural openness and gender was not statistically significant (β = -0.82, *SE* = 0.76, $t = -1.08$, $p = .282$, 95% CI [-2.32, 0.67]), indicating that gender did not significantly moderate the relationship between cultural openness and academic self-efficacy (Figure 3). The change in explained variance due to the interaction was minimal ($\Delta R^2 = .002$). These findings suggest that the association between cultural openness and academic self-efficacy does not differ significantly between male and female students.

Table 4

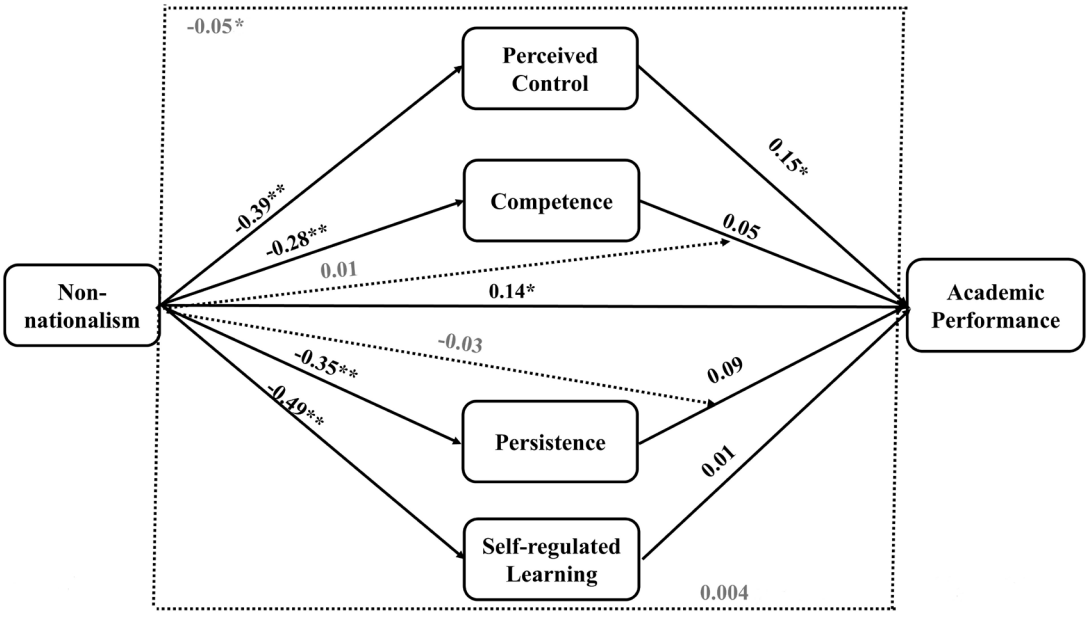
Summary of mediation effects: Non-Nationalism, Academic Self-Efficacy, and GPA

Effect type	Pathway	Standardized β	CI	Significant?
Total effect	Non-nationalism → GPA	0.01	$p = .24$	No
Direct effect	Non-nationalism → GPA (controlling for mediators)	0.04	$p < .001$	Yes
Total indirect effect	Non-nationalism → self-efficacy → GPA	-0.03	95% CI [-0.04, -0.02]	Yes
Indirect via perceived control	Non-nationalism → Prec → GPA	-0.02	95% CI [-0.03, -0.01]	Yes
Indirect via competence	Non-nationalism → Comp → GPA	-0.004	95% CI [-0.01, 0.003]	No
Indirect via persistence	Non-nationalism → Pres → GPA	-0.01	95% CI [-0.02, 0.001]	No
Indirect via self-regulated learning	Non-nationalism → SRL → GPA	0.001	95% CI [-0.01, 0.01]	No

Note. Prec = Perceived control; Comp = Competence; Pres = Persistence; SRL = Self-Regulated Learning. Indirect effects were tested using 5,000 bootstrap samples. CI = Confidence Interval.

Figure 2

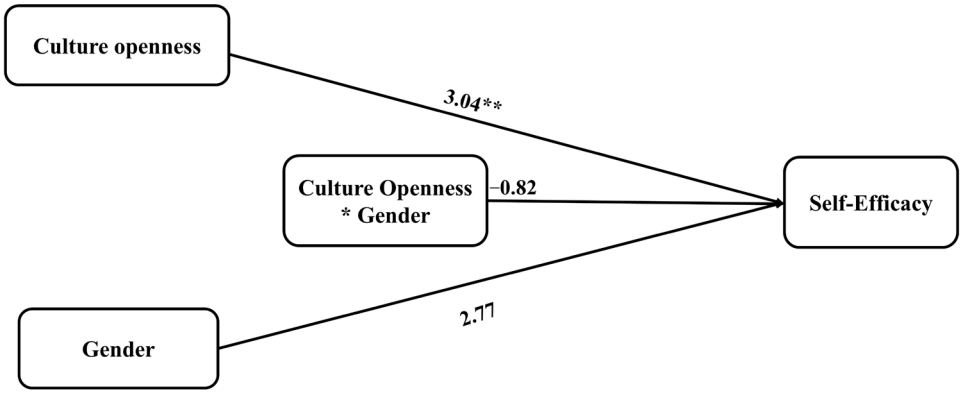
Direct and indirect association of non-nationalism and academic achievement through academic self-efficacy



Note. Solid lines for direct effects and dash lines for indirect effects.
* $p < .05$; ** $p < .01$.

Figure 3

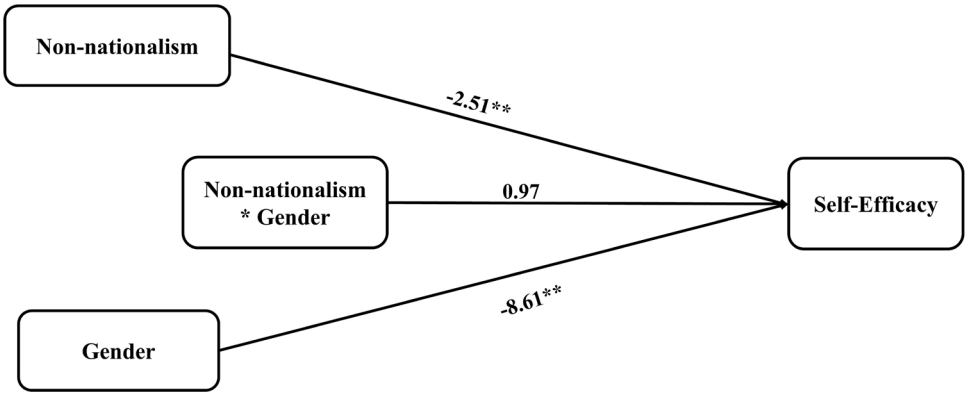
Moderator effect of gender on the relationship between culture openness and self-efficacy



Note. Solid lines for direct effects and dash lines for indirect effects.
* $p < .05$; ** $p < .01$.

Figure 4

Moderator effect of gender on the relationship between non-nationalism and self-efficacy



* $p < .05$; ** $p < .001$.

A moderation analysis was conducted using Model 1 of the PROCESS macro for SPSS (Hayes, 2022) to examine whether gender moderates the relationship between non-nationalism and academic self-efficacy. The overall model was statistically significant, $F(3, 941) = 26.64$, $p < .001$, accounting for approximately 16.1% of the variance in academic self-efficacy ($R^2 = .16$). Non-nationalism significantly predicted academic self-efficacy ($\beta = -2.12$, $SE = 0.25$, $t = -8.5$, $p < .001$, 95% CI [-2.61, -1.63]), indicating that higher levels of non-nationalism were associated with lower academic self-efficacy. The interaction between non-nationalism and gender approached significance ($\beta = 0.97$, $SE = 0.52$, $t = 1.87$, $p = .062$, 95% CI [-0.05, 2]), suggesting a potential moderating effect (Figure 4), although this did not reach the conventional threshold for statistical significance. The addition of the interaction term explained a small but notable increase in variance ($\Delta R^2 = .01$).

Further analysis of conditional effects revealed that the negative association between non-nationalism and academic self-efficacy was statistically significant for both female and male students. Specifically, for females, the effect was stronger ($\beta = -2.51$, $SE = 0.31$, $p < .001$, 95% CI [-3.11, -1.9]) compared to males ($\beta = -1.53$, $SE = 0.42$, $p < .001$, 95% CI [-2.36, -0.71]). These results suggest that while non-nationalism is generally associated with lower academic self-efficacy, this relationship may be more pronounced among female students.

Discussion

This study examined how global identity, specifically cultural openness and non-nationalism, is associated with academic self-efficacy and academic performance (GPA) among undergraduate students in Saudi Arabia. It tested whether global identity is associated with dimensions of academic self-efficacy (H1), and whether these dimensions mediate the relationships between cultural openness (H2) and non-natio-

nalism (H3) with GPA. The study also explored whether gender moderates these associations (H4 and H5).

Results from multiple linear regression analyses (H1) revealed a clear association: cultural openness was positively associated with all four dimensions of academic self-efficacy, whereas non-nationalism was negatively associated with these dimensions. Cultural openness seems to enhance students' confidence in their academic abilities (Reysen & Katzarska-Miller, 2013). This aligns with earlier research that found openness to cultural diversity supports cognitive flexibility, the ability to handle uncertainty, and effective academic behaviors (Chiu et al., 2013). The consistent positive associations across different aspects of self-efficacy suggest that cultural openness provides students with greater motivation and resources for academic success. In contrast, non-nationalism showed negative associations with academic self-efficacy. Although global identity is generally viewed positively, these results suggest that decreasing identification with one's nation, without adopting a clear alternative identity, might negatively affect students' sense of belonging and stability. These factors are crucial for building academic self-confidence and motivation (Eccles & Wigfield, 2002; Ryan & Deci, 2000). It is possible that high non-nationalism creates uncertainty about identity, thereby weakening academic confidence and motivation. Overall, these results highlight the complex role of global identity in educational context. While cultural openness clearly benefits students' academic self-efficacy, the negative influence of non-nationalism suggests a need for further research. Future studies should explore if the effects of non-nationalism change when combined with factors such as community connection, clear identity integration, or commitment to global citizenship.

The mediation analysis revealed a significant overall indirect effect, indicating that academic self-efficacy partially explains how cultural openness relates to academic achievement (H2), despite the total and direct effects not reaching statistical significance. This suggests that cultural openness impacts academic performance indirectly through academic self-efficacy rather than having a direct effect. Among the self-efficacy dimensions, perceived control emerged as the sole significant mediator. This finding highlights perceived control as a crucial psychological mechanism linking cultural openness to improving academic outcomes. Specifically, students who embrace cultural diversity may feel a greater sense of control over their academic environment, enabling them to effectively translate their global perspectives into tangible academic success. This interpretation aligns with previous research emphasizing the critical role of perceived control in fostering academic achievement (Bandura, 1997; Skinner & Greene, 2008), particularly as it relates to motivational resources and adaptive educational behaviors. In contrast, competence, persistence, and self-regulated learning did not significantly mediate the relationship between culture openness and academic performance. While previous literature has highlighted their importance for academic success (Schunk & Pajares, 2002; Zimmerman, 2000), their non-significant mediation effects in this context suggest that perceived control may uniquely facilitate the translation of cultural openness into academic performance. This finding indicates that feeling in control of one's learning environment might be more directly influenced by openness to diverse cultural experiences compared to the other self-efficacy dimensions. These results have implications for educational interventions aimed at enhancing student performance through the promotion of cultural openness and perceived control. Educators and policymakers might consider integrating activities that increase cultural awareness alongside strategies that specifically bolster students' perceived control, such as goal-setting workshops or training in adaptive coping strategies. Future research could further explore the conditions under which cultural openness enhances perceived control and subsequently academic outcomes, potentially examining the role of supportive institutional environments or identity clarity as moderating factors.

Additionally, the mediation Analysis revealed that the direct relationship between non-nationalism and academic performance (H3) was not significant when academic self-efficacy was not considered. Interestingly, when self-efficacy dimensions were considered, the direct effect of non-nationalism on academic performance became significant. Additionally, the overall indirect effect through academic self-efficacy was significant, confirming a mediating role of self-efficacy for the relationship between non-nationalism and academic performance.

Of the four self-efficacy dimensions analyzed, perceived control was the only significant mediator, indicating that students' sense of control is a key mechanism linking non-nationalistic attitudes to academic performance. On the other hand, competence, persistence, and self-regulated learning did not significantly mediate this relationship. These findings suggest that non-nationalistic attitudes can negatively impact academic performance by diminishing students' perceived control. It appears that students who identify less with their national identity might experience reduced control over their learning environments, thereby negatively influencing their academic outcomes. This result aligns with existing research emphasizing perceived control as critical for academic success because it promotes adaptive behaviors and motivation (Bandura, 1997; Skinner & Greene, 2008). These results highlight the importance of helping students maintain a strong sense of control over their academic endeavors, particularly those who may feel less connection to national identity. Educational interventions could focus on strengthening perceived control, potentially mitigating negative effects associated with non-nationalistic orientations. Further research could explore how institutional support or alternative forms of identity affirmation might moderate these effects and support academic achievement.

Moreover, a moderator analysis revealed a statistically significant overall model, suggesting that cultural openness positively relates to academic self-efficacy (H4). However, the interaction between cultural openness and gender was not significant, indicating that this relationship does not differ substantially between male and female students. This finding showed that cultural openness consistently predicts higher academic self-efficacy across genders supports the notion that openness to diverse cultures universally benefits students' aca-

demic confidence and motivation (Fujita & Han, 2009). This aligns with previous research highlighting cultural openness as an important contributor to adaptive academic outcomes (Chiu et al., 2013; Reysen & Katzarska-Miller, 2013). Importantly, the absence of moderation by gender suggests educational interventions promoting cultural openness can be effectively applied broadly without needing to differentiate by gender. This outcome contrasts with other studies showing differences by gender in how psychological constructs influence academic outcomes (Meece et al., 2006). One potential explanation for the lack of moderation in the current findings could be that cultural openness impacts fundamental aspects of learning and motivation similarly across genders. Alternatively, it may indicate the universal relevance of cultural openness in contemporary diverse educational environments, reducing traditional gender-based differences in academic perceptions and behaviors.

Practically, these findings suggest educational policies and programs promoting cultural openness should be inclusive and not gender-specific, as they equally enhance academic self-efficacies for all students. Future research might explore whether other demographic factors, such as age, cultural background, or specific educational contexts, interact with cultural openness to affect academic self-beliefs differently.

Finally, a moderation analysis that investigated whether gender influences the relationship between non-nationalism and academic self-efficacy (H5). Results revealed that non-nationalism negatively predicts academic self-efficacy, meaning students who feel less connected to their national identity tend to have lower confidence in their academic abilities. Additionally, a potential moderating role of gender, though this interaction did not reach conventional statistical significance levels. Importantly, further conditional analyses clarified that the negative relationship between non-nationalism and academic self-efficacy was significant for both male and female students, but it was notably stronger among females. This indicates that female students might experience a greater impact on their academic confidence from weaker national identification compared to male students. These findings align with previous research suggesting that identity uncertainty or weakened social identification can negatively influence academic motivation and self-beliefs (Eccles & Wigfield, 2002; Meeus et al., 2010; Mohamed Abdelrheem, 2025). The stronger effect observed among female students also corresponds with existing literature highlighting gender differences in how identity-related factors influence psychological and academic outcomes. Specifically, females might be more sensitive to disruptions in social identity or community belonging, potentially amplifying the effects of non-nationalistic attitudes (Meece et al., 2006). The practical implication of these findings is significant, highlighting the importance of tailored interventions that address identity-related challenges among students, especially females, who appear more vulnerable to the adverse academic effects of non-nationalism. Educational programs aiming to boost academic self-efficacy might consider integrating identity-affirming activities or supportive communities to mitigate these effects.

Future research should further investigate why females might experience a stronger link between non-nationalism and reduced academic self-efficacy. Exploring factors such as societal expectations, identity support systems, or gender-specific coping mechanisms could provide deeper insights.

Limitations

This study has several limitations to consider. First, because it used a cross-sectional design, it cannot establish cause-and-effect relationships between global identity, academic self-efficacy, and GPA. Second, all data were self-reported, which may lead to bias or inaccuracy, especially on sensitive topics like national identity. Third, the study focused only on students in Saudi Arabia, so the findings may not apply to students in other countries or cultural contexts. Additionally, participants may have interpreted the concept of non-nationalism differently, which could have influenced the results. Finally, while gender was examined as a moderator, other important factors –such as family background or cultural experiences– were not included and should be explored in future studies.

Practical recommendations

The results of this study offer practical ways to help improve student success in higher education. Encouraging cultural openness can boost students' academic self-efficacy –especially their sense of control over learning, which can lead to better academic performance. Universities can support this by providing intercultural programs, student exchanges, or courses that promote global awareness and cross-cultural understanding. However, students with low national identification (non-nationalism) may feel less confident in their academic abilities, especially in terms of control, which can negatively affect their performance. This effect seems to be stronger in female students. To address this, universities should offer resources that support students' sense of identity and belonging, such as counseling, mentoring, or peer support programs. In summary, helping students feel both open to other cultures and confident in their ability to manage learning can strengthen academic outcomes, especially in diverse student groups.

Conclusion

In conclusion, the study shows that global identity influences academic success in two different ways. When students are open to other cultures, they feel more in control of their learning. This stronger sense of control, a core part of academic self-efficacy, helps them stay motivated and achieve higher grades. By contrast, when students feel little connection to their nation, a stance we call non-nationalism, their sense of control weakens, and their grades fall. This negative effect is stronger for female students. Overall, *perceived control* is the main psychological link between a student's global identity and their academic performance.

Authors contribution

Conceptualization: T.N.M.
Data curation: T.N.M.
Formal analysis: T.N.M.
Investigation: T.N.M.
Writing – Original draft: T.N.M.
Writing – Review & editing: T.N.M.

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Declaration of interests

The author declares that there is no conflict of interest.

Data availability statement

Data can be accessed on Tarik N. Mohamed, 2025, "Beyond borders: Exploring the Connection Between Global Identity and Academic Self-Efficacy in College Students", https://doi.org/10.7910/DVN/RCHZN4.

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Appendix 1

Table 1

Explanatory factor analysis of the Global identity Scale

	Factors Loading		Reliability	
Item	Factor 1	Factor 2	Cronbach's α	McDonald's ω
GIS_Item08 (-)	0.806		0.795	0.799
GIS_Item10 (-)	0.787			
GIS_Item07 (-)	0.708			
GIS_Item09 (-)	0.67			
GIS_Item06 (-)	0.639			
GIS_Item04 (+)		0.742	0.664	0.672
GIS_Item02 (+)		0.675		
GIS_Item05 (+)		0.589		
` Eigenvalue	2.693	1.508	*r* between factors = -.046	
% Variance	26.927	18.76		

Table 2

Goodness-of-fit indices for CFA Model

Fit index	Estimated value	Recommended cutoff	Interpretation
χ^2/df	2.236	< 3	Good fit
NFI	.959	≥ .9	Good fit
CFI	.977	≥ .95	Excellent fit
IFI	.977	≥ .	Good fit
TLI	.961	≥ .95 (ideal)	Acceptable fit
GFI	.981	≥ .9	Excellent fit
RMSEA	.05	< .05 (excellent)	Good fit

Table 3

Explanatory factor analysis of the ASE Scale

	Factors Loading			
Item	Factor 1	Factor 2	Factor3	Factor 4
PC01	.489			
PC02	.36			
PC03	.378			
PC04	.438			
PC05	.383			
PC06	.542			
PC07	.477			
PC08	.452			
PC09	.502			
PC10	.406			
C01		.422		
C02		.33		
C03		.359		
C04		.485		
C05		.481		
C06		.487		
C07		.501		
C08		.417		
C09		.571		
C10		.522		
P01			.573	
P02			.553	
P03			.561	
P04			.571	
P05			.625	
P06			.599	
P07			.526	
P08			.627	
P09			.628	
P10			.609	
SRL01				.631
SRL02				.42
SRL03				.372
SRL04				.422
SRL05				.495
SRL06				.565
SRL07				.512
SRL08				.538
SRL09				.657
SRL10				.653
Eigenvalue	11.223	2.286	1.761	1.493
% Variance	28.057	5.715	4.462	3.733

Table 4

ASE Goodness-of-fit indices for CFA model

Fit index	Estimated Value	Recommended Cutoff	Interpretation
χ^2/df	2.226	< 3	Good fit
NFI	.951	≥ .9	Good fit
CFI	.917	≥ .9	Good fit
IFI	.917	≥ .9	Good fit
TLI	.921	≥ .95 (ideal)	Acceptable fit
GFI	.901	≥ .9	Good fit
RMSEA	.04	< .05 (excellent)	Excellent fit