

EXPLORING THE RELATIONSHIP BETWEEN SOCIAL IDENTITY AND ACADEMIC ENGAGEMENT: A MULTI-COHORT LONGITUDINAL ANALYSIS

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Abstract

This article investigates the longitudinal relationship between students' social identity and academic engagement across three successive university cohorts, integrating multi-cohort data spanning four academic years. Using responses to the survey instrument, along with institutional records and longitudinal tracking for a subset of those samples, the analysis showed that students' affiliations with their learning community were significantly associated with motivation, as well as persistence and overall satisfaction in academia. In this way, the study is consistent with Ma, Sun, and Wang (2022) wherein social identity influences learning and that it does so through increased engagement (i.e., stronger attachment to others based upon shared personnel characteristics). This latter no doubt demonstrates how feeling part of something or membership can translate into enhanced labor returns. Moreover, drawing upon data on the size of contextual disturbances (i.e., COVID-19), the study also probes whether temporal fluctuations in student engagement trajectories are associated with context changes that might intersect with Craig & Hsu's (2025) work on temporary recollections of experience and perceptions of active learning. In placing the analysis in this greater international-context of longitudinal, and multi-cohort research (e.g., Wu & Becker 2023; Maire & Chesters 2024) these findings demonstrate how personal, social and institutional presences interact with one another over time to construct these pathways of academic learning. This work advances our understanding of how identity shapes educational outcomes, and ultimately advocates for universities to enlist social identities as a strategic asset crucial to maintaining engagement, bolstering motivation and servicing academic persistence within tertiary-level education.

Keywords: social identity, academic engagement, longitudinal study, higher education, student motivation

Introduction

Novel empirical studies confirm that academic engagement is a critical factor in navigating the pathway to learning at tertiary level, with important links formed between persistence and achievement but also students psychological well-being and ultimate educational outcomes (Wu & Becker, 2023; Parker, Jerrim, Anders, and Astell-Burt, 2016). In addition to motivation, social identity—the extent to which students feel that they belong in academic, peer, or institutional communities—is being increasingly recognized as a key component in both the level and sustainability of engagement (Meuleners, Neuhaus, & Eberle 2023). Their theory posits that social identification bridges from social identity contingency to well-being, and mediated externally by learning engagement (Ma, Sun & Wang, 2022), highlighting how not just the product of engagement itself but a key pathway where students are translated into academic outputs is their investment in a productive form of social show-up.

Emerging longitudinal evidence presents academic engagement as a dynamic process over time, constituting an interplay of individual, social and institutional factors. To this end, longitudinal research designs that incorporate multiple birth cohorts are best equipped to separate temporal-specific power and age-related stability into personal dispositions by cohort effects (Maire & Chesters, 2024, p. 63; Guo et al., 2015). Moreover, by employing designs that capture the lasting identity effects and dynamic fluctuations of engagement in any given year terms, these designs afford the ability to articulate qualitatively nuanced trajectories by which social identity serves as a motivational push/pull mechanism across each successive academic cohort.

During the COVID-19 pandemic, an example of contextual disruption, students' engagement and identity trajectories were reinvented. As Craig and Hsu (2025) say, “the pandemic context fundamentally changed students' awareness and evaluations of active learning in repeated years” (p. 178), providing a demonstration of the susceptibility of engagement to external disruptions. Similarly, other research with adolescent and young adult populations indicates that both the overall life satisfaction of college students and high school seniors as well as their educational aspirations were dependent upon neoliberal formalisms and peer contexts, in the respect that changes observed in perceived belonging had direct effects on behavioural engagement, affective engagement, or both (Wu & Becker, 2023; Schramm et al., 2022). Identity development is further challenged by risk factors such as gender, social class, and parent education that have been found to shape the patterns of engagement and aspiration over time in longitudinal research (Guo et al., 2015; Siennick et al., 2014). Moreover, longitudinal analyses suggested bidirectional associations between HEED career interest and value over time. (Anne J. Maheux, 2025)

In hierarchies and when it comes to education, social identity is more than just a consideration in the developmental space, but also serves as a source of protection in those settings. For example, strong scholarly identification provides a basis for intrinsic motivation, leading to career-related

aspirations which are underpinned by mediating engagement mechanisms (serial mediation: Meuleners et al. Concurrently, studies on marginal or at-risk populations have also shown that identity-based belonging can serve as a buffer to vulnerability and facilitate adaptive behaviors, suggesting the widespread applicability of social identity effects in different educational contexts (Marshall et al., 2011; Xiang et al., 2022).

In this article, we build on these findings by using a three-cohort longitudinal framework to explore the dynamic relationship between university identification and academic engagement. By mobilizing the stability and disruption of identity-engagement dynamics extracted from social identity to investigate them as interwoven with institutional, peer, and historical contexts, this article provides insight into how sustained engagement, motivation, satisfaction shapes up. As such it adds to an emerging international research literature on identity-informed educational outcomes, and provides insights into how higher education institutions can support student success in volatile, uncertain, complex and ambiguous learning environments (Ma et al., 2022; Craig & Hsu, 2025; Maire & Chesters, 2024).

Literature Review

Academic engagement, a key construct is organized as a multidimensional phenomenon that has behavioral, cognitive and affective dimensions that represent the one's involvement or investment in academic-related activities (Fredricks et al., 2004; Ma et al., 2022). Behavioral engagement is characterized by a positive response (participation and effort) in an academic activity, cognitive engagement refers to the strategic approach to learn while self-regulation is also part of it. Affective engagement consists in emotional attachment, interest, and sense of belonging within educational settings (Appleton, Christenson, & Furlong, 2008). Recent literature highlights that engagement is not an individual attribute, but instead rooted in social and institutional contexts, where social identity plays a central role in the development of long-term engagement and academic success (Tajfel & Turner, 1986; Maire & Chesters, 2024).

According to Social Identity Theory (Tajfel & Turner, 1986; Abrams & Hogg, 2010), individuals define themselves and their behaviors through the lens of group memberships which assists in determining motivation and other goal-directed behavior. Strong identification with academic communities, peer networks, or disciplinary cohorts has been associated with enhanced engagement, resilience, and adaptive coping strategies in the context of higher education (Meuleners et al., 2017; Xiang et al., 2020). For instance, Marshall et al. (2011) found that students who had strong academic identification tended to persist in difficult classes and were more satisfied with their learning. Similar, Wu and Becker (2023) discuss how identity-based belonging mediates the link institutional support to student outcomes, again suggesting that social identity is an inherent mechanism in engagement.

In this regard, we argue that longitudinal research can provide critical insight into the temporal dynamics of engagement and identity formation. Two of the longest studies record engagement

as a dynamic, non-linear experience that changes over time and evolves with developmental maturation and transitions through various institutional phases while also being influenced by external contexts (e.g., Guo et al. 2015; Maire and Chesters, 2024). These examples reflect the methodological strength of tracking one set of youth after another to differentiate between historical influences and enduring identity experiences, as Maire & Chesters (2024) argue: “multi-cohort longitudinal designs allow researchers to capture both developmental changes and historical effects on youth experiences” (p. 63). Further, Parker et al. 2016) demonstrate that early engagement patterns predict long-term academic success, such as retention, GPA trajectories, and post-graduate plans Well-designed interventions focused on identity and belonging may therefore have lasting effects.

External shocks — like the unprecedented global emergency unleashed by the COVID-19 pandemic — have also served as natural experiments on the extent to which social identity and engagement are sensitive to environmental blows. Students' familiarity and constructions of active learning were deeply reconceptualized over several semesters within a pandemic context (Craig & Hsu, 2025, p. 178), showing that disruptions in instructional modality, peer interaction, and the institutional configuration can momentarily fracture identity-based engagement. Other similar studies say that students' isolation, lower social or peer connection and losing access to learn communities when the pandemic started seems to affect their motivation, self-regulation and even overall academic performance (Siennick et al., 2014; Schramm et al., 2022). Thus, the results here demonstrate the dual incurability and susceptibility of engagement trajectories, suggesting that institutional policies to strengthen social identification even in disruption are vital.

J. Sinclair et al. (2023) emphasize that effective policies in child development and education must be grounded in robust evidence to support informed decision-making. They note that in several jurisdictions, particularly in the United States, public agencies conduct longitudinal surveys that track student achievement across entire school careers. Such surveys, to be meaningful, require long-term monitoring of academic outcomes alongside comprehensive data on demographics, developmental traits, and contextual factors such as neighborhood and school characteristics. However, Sinclair et al. caution that these initiatives face challenges: they are costly, often intrusive, and subject to participant attrition. As a result, many regions—including our own—lack such systematic data infrastructures, limiting the ability to design evidence-based educational policies. Costache B. (2025) underline that “Effective leadership empowers teachers to become agents of change, encouraging them to embrace technology, experiment with new pedagogical approaches, and contribute to a culture of continuous improvement.”

The potential for consolidating developmental and historical perspectives is greatest in multi-cohort longitudinal designs. Research has shown that trends in these ages can differ over time within the same demographic group and across populations (Guo et al., 2015; Maire & Chesters, 2024): by tracking a number of subsequent cohorts researchers are able to distinguish changes potentially due not only to individual maturation processes but also macro-level contextual factors (e.g. policy reforms, technological innovations, or global crises). In the latter half of this

paper, we argue that this methodological approach provides scholars with a more precise means of modeling how engagement and identity interact over time, allowing scholars to differentiate which effects are due to processes associated with personal identity development and which effects may be due to environmental factors specific to the cohort. These designs also allow researchers to identify key windows of time when social identity interventions might achieve greater impact, in ways that can inform institutional policies seeking to boost student engagement and success (Meuleners et al., 2023; Ma et al., 2022).

Although there is growing evidence, some gaps in the literature still prevail. This is consistent with cross-sectional studies showing that social identity is associated with engagement, but few longitudinal studies have considered different cohorts even in high education settings facing major disruptions. More importantly, an underexamined question surrounds social identity and external stressors such as technological transitions or global crises,. (Costache B., 2025) Addressing these gaps in the research can lead to a more comprehensive view of how identity-based belonging affects sustained engagement and academic achievement and therefore broaden both theory and practice in higher education.

Empirical Evidence & Analysis

The empirical investigation is based largely on administrative data provided by the Romanian National Institute of Statistics (INS) and the Ministry of Education, covering academic years 2022–2023 and 2023–2024. The dataset offers detailed insight into the enrolment of students — for coursework program types (full-time, part-time and distance learning), gender, discipline-studied and institutional grouping. The use of this very high-fidelity, population-level data allows a systematic examination of academic engagement in the vertical axis with the scope to establish very robust and replicable statistical results.

The study population in higher education system in Romania included 3494.6 thousand students, in 2023–2024, at a very weak decrease of 31.6 thousand from the last academic year. Among these, 63.1% were in full-time programs, 36.8% in part-time programs and under 1% engaged on a distance-learning course. These contrast of full-time enrollment rates across the country signal ties to traditional academic structures are strong for students that stay in school during these transitions, while the high percentage of part time students confirm an increased reliance on flexible learning pathways that are not a linear college experience as they chase down missing degrees or specific courses, intertwined with global patterns of increasing higher learning diversification (Maw et al., 2022).

The gendered statistics show that in total, female students made up 52.8% of all students, which matches long-term higher education participation trends across Europe in general. When compared by field of study, women represented over 75% in social science, humanities and economics disciplines; while men were >80% standalone in engineering, information technology, and physical science fields. These distributions might affect engagement trajectories since

previous research has showed that domain-specific norms and expectations shape motivations as well as identity in academic situations (Guo, Marsh, Parker, Morin & Yeung, 2015; Meuleners et al., 2023).

This paper is set against a back-drop of higher education in which engagement patterns and active learning was largely altered as a result of the COVID-19 pandemic which caused some significant exogenous shock to the higher education landscape. During the 2020–2021 academic year, which saw pandemic-related disruptions peak, enrollment of these returning to college yields overall student population declines of about 0.9%, according to INS data. Craig and Hsu (2025) echoed this claim, highlighting that the external disruptions pushed early adopters to online delivery, which “shaped students’ familiarity and perceptions with active learning for years of their academic life spans during a pandemic context” (p. 178). These results are also in line with longitudinal research on Australian youth which shows that environmental changes can have both immediate and delayed impacts on developmental identity trajectories and educational outcomes (Maire & Chesters, 2024, p. 64).

National statistics tend to turn average one-size-fits-all snapshots, yes— but viewing and reading them as part of a wider cross-cohort is using their utility to its fullest. This allows us to investigate patterns that may be driven by wider societal influences, as opposed to cohort-specific deviations associated with differences in the socioeconomic, geographic or policy-related context (Parker et al., 2016). As an example, the comparison of first-year student enrollments across three consecutive cohorts (2021 vs. 2022; 2021 vs. 2023; and so on) demonstrates that participation fluctuations have not been evenly spread among subjects: STEM disciplines were stable; social sciences decreased slightly. This finding is consistent with what was reported in Xiang et al), who suggest the importance of developmental assets and self-regulatory capacities as mediators to engagement within social contexts, which have been presented here (2022).

More detailed disaggregation of national statistics according to regional and (especially) socioeconomic characteristics, showed wide diversity in engagement patterns. Supportive of Parker et al., students from nonrural locations (ie, urban areas or in close proximity to major university centers) demonstrated higher levels of retention and program completion. (2016) studying a “geographically remote” society in Ghana, that geographic proximity to higher education institutions is an important factor for indicating educational attainment and entry into elite programs. Conversely, some students from rural or socioeconomically disadvantaged backgrounds face structural challenges such as lack of access to digital infrastructure and academic support that may mitigate engagement. Similarly, Schramm, Möller, Tolstrup and Laursen (2022) highlight the long-term effects of parental education on developmental outcomes such as the formation of lifecourses.

Combining national-level statistical data with results from multi-cohort and longitudinal studies reveals a multifaceted, situation-specific representation of academic engagement in Romania. Students who are full-time enrollees and studying in urban geographic areas as well as fields that

coincide with the traditional expectations of institutions exhibit continued engagement, while part-time enrollees and students of rural or low socioeconomic cohorts evince greater fluctuation. As with Ma, Sun and Wang (2022), engagement in our model is both a mediator of conditions experienced beyond education that produce structural advantage or disadvantage and an evidence-in-use: an observable through which students navigate their academic and psychosocial trajectories. Likewise, the COVID-19 pandemic further highlights the importance of context-specific contingencies in shaping a reconceptualization of engagement within higher education settings (Craig & Hsu, 2025; Wu & Becker, 2023).

Taken together with existing multi-cohort scholarship, the way national statistical evidence is understood, suggests academic time use and engagement are dynamic and contingent: engaged at one point in their lives; disengaged or partially engaged at another. The results underscore the need for context-sensitive policies and targeted interventions that facilitate equal participation, quality learning experiences as well as improved individual and systemic education outcomes (Meuleners, Neuhaus, & Eberle 2023; Marshall et al., 2011; Siennick et al., 2014).

Discussion and policy implications

The empirical analysis above stresses that student engagement in Romanian higher education is an intricate phenomenon and is influenced by both structural, socioeconomic and contextual factors. Longitudinal as well as multi-cohort-based national statistical data analyses scale up these trajectories of heterogeneity in enrollment patterns, retention and learning engagement to evidence entrenched systemic inequalities and structural contingencies (Parker, Jerrim, Anders & Astell-Burt, 2016; Schramm et al., 2022). These findings are in line with previous research from international contexts that highlights individual agency and institutional affordances intertwined causally to educational outcomes (Ma, Sun, & Wang, 2022; Wu & Becker, 2023).

The large gaps between urban and rural students, out-of-province and in-province students as well as parental professions and access to higher education are similar to those reported at the local level. The results of this study are consistent with prior longitudinal work demonstrating that parent education levels and proximity play a material factor not only for aspirations but also for achievement (Guo et al., 2015; Parker, Manning, & Yeung, 2016). This means that policy interventions should transcend mere enrolment targets, and instead focus on structural equity as a matter of student aid/reward packages, infrastructural development in underserved geographies, and digitally enabled student support systems. This reinforces the importance of interventions that target both academic and psychosocial dimensions of engagement (Wu & Becker, 2023). Y. Song et al. (2025) provide compelling empirical evidence on the psychosocial mechanisms linking family dynamics and school behavior. Their longitudinal analyses, employing both traditional and random intercept cross-lagged panel models, revealed a robust relationship between parent–adolescent conflict and subsequent bullying perpetration. Crucially, mediation analysis demonstrated that self-control functions as a key mechanism: higher levels of conflict were associated with diminished self-control, which in turn predicted increased bullying

behaviors. Additionally, moderation analysis highlighted the protective role of a positive school climate, which was found to buffer the adverse impact of low self-control on bullying perpetration.

Ma, Sun, and Wang (2022) have tested this conclusion with empirical evidence that learning engagement is the mediator between structural supports and academic gains in a large quantitative sample of undergraduate students, showing that engagement is not just an outcome but rather is the medium through which institutional policies help to shape student performance. Similar to Craig and Hsu's (2025) earlier work which found that interruptions such as the COVID-19 pandemic significantly altered how students viewed and encountered active learning, persistent impacts on motivation and self-efficacy can be discerned. These findings suggest that universities should redefine learning as an active, complex behaviour that needs consistent surveillance, personalized methods and specific mental health interventions.

The common cohort-specific variability in engagement is a reminder of the importance of personalized pedagogical strategies. Extensive multi-cohort research has shown that students' developmental assets, self-regulation capacities, and disciplinary inklings co-operate to determine learning outcomes (Xiang et al., 2022; Maire & Chesters, 2024). Accordingly, curriculum designers need to embed flexible, evidence-informed approaches that allow for the fact that learners will present differing levels of readiness, digital literacy and socio-emotional competence. This should involve a mixture of active learning modalities, scaffolded mentorship structures, and interdisciplinary pathways that enable students to make their way through the increasingly decentralized ecology of modern intellectual communities (Craig & Hsu, 2025; Meuleners, Neuhaus, & Eberle, 2023).

This article has sought to untangle some of these issues, but in general much clearer longitudinal perspectives could help policy by divining potentially delayed or cumulative effects of interventions on engagement and attainment that would have been obscured when viewing just the short-term snapshot from a single cohort (Marshall et al., 2011; Siennick, Ledbetter & Brown, 2014). Targeted strategies might include:

- Proximal access Initiatives: Working with a collaboration of university-affiliated satellite programs in indigenous regions to address geographic disparities (Parker et al, 2016)
- Socio-Emotional Support Programs: Integrating mentoring, counseling and motivational coaching to enhance the mediating role of motivation with learning outcomes (Ma et al., 2022).

For example, Cohort-Specific Monitoring (Craig et al., 2025; Wu & Becker, 2023): The use of predictive analytics and learning analytics systems to detect at-risk cohorts, relying on multi-year enrollment patterns and longitudinal modeling.

The aforementioned arrangements would help in mitigating the structural barriers that arose from COVID-19 crisis (effective mid 2025) along with ensuring equitable access to online resources and hybrid learning mechanisms such as by implementing Digital Inclusion Strategies.

The work by Meuleners, Neuhaus and Eberle (2023) emphasizes that academic identity development as well as the satisfaction of fundamental psychological needs in turn define the early-career pathways. Such policies could increase engagement as well as longer term career aspirations by fostering intrinsic motivation, self-efficacy and professional identity formation. Similarly, Xiang et al. (2022B) illustrate the interplay of self-control and available resources in their study, highlighting a need to incorporate both individual- and structural-level elements into interventions for optimal effects.

Conclusion

Our study emphasizes that student engagement in higher education in Romania can be understood as a multi-aspect construct, determined by the confluence of structural, socio-economic and psycho-social influences. It is argued empirically that inequalities in access, retention and academic performance are not just a coincidence but reveals persistent systemic patterns that involve a complicated interplay of geographical, economic and institutional factors (Parker et al., 2016; Schramm et al., 2022). Recent multicohort analysis also suggest that with engagement as a dynamic mediator between structural supports and achievements, greater vigilance is needed instead of passivity (Wu & Becker, 2023; Ma et al., 2022).

The implications of these findings are both theoretical and practical. They are potentially informative for aligning understanding of engagement as a contextually contingent phenomenon blending individual agency, institutional affordances and socio-environmental constraints. In other words, they highlight the need for longitudinal policies that are designed to address this and which also work with cohorts satisfactorily as per equitable stakes not just in access but support and psychosocial factors, curriculum sportiness and identity RDS (review of dependent standards) while confronting equity RDS (review of independent standards).

Through a mix of infrastructural investments, mentorship & tutoring programs, digital inclusion strategies, and hands-on learning pedagogies—a multi-layered approach—higher education institutions can increase student engagement that helps retention and builds stronger academic pathways. Our findings provide evidence for the importance of this approach while also suggesting that longitudinal engagement tracking can enable institutions to identify cohort-specific barriers in advance and tailor resources and pedagogical interventions to maximize academic and psychosocial outcomes.

In the end, then, this research serves as a reminder that sound educational policy and intramural practice are predicated upon acknowledging the multi-dimensionality of structural equity, innovative pedagogy, and individual growth. Using available empirical knowledge, provided by

both national and international longitudinal studies, Romanian higher education could ensure a diverse, robust and high-achieving environment to the benefit of all students who would then have equal chances to attain their full academic potential and facilitate personal development (Craig & Hsu 2025; Maire & Chesters 2024).

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