

Navigating the Hidden Curriculum: Practical and Psychological Barriers to Research Engagement among Vietnamese Undergraduate Students

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Abstract

This study investigates the barriers to research engagement among undergraduate students using a convergent parallel mixed-methods design. Analysing data from 164 participants, the research identifies significant practical and psychological obstacles hindering student involvement in scientific inquiry. Key findings reveal that practical barriers, specifically the prioritization of required courses and GPA maintenance, are the most prevalent constraints, alongside financial pressures from part-time employment. Psychologically, students reported uncertainty regarding the hidden curriculum of identifying and contacting supervisors, coupled with low self-efficacy in research design. The study concludes that systemic curricular rigidity and a lack of clear communication channels contribute to these barriers, necessitating institutional policy reforms to integrate research into the standard curriculum.

Keywords: research engagement, undergraduate students, practical barriers, psychological barriers, research mentorship, higher education

1. Introduction

1.1 Background to the Study

Undergraduate research is widely recognized as a high-impact educational practice that enhances students' academic performance, critical thinking, and readiness for graduate studies or professional careers (Rix, 2023). Participation in research fosters transferable skills such as problem-solving, communication, and collaboration, while also improving retention and graduation rates (Adebisi, 2022; Mantai et al., 2024). Universities increasingly embed research experiences into curricula through mentored projects and course-based undergraduate research experiences, reflecting its transformative role in higher education (Hochman & Jin, 2025). However, engagement is influenced by multiple factors, including institutional support, mentorship quality, assessment design, and students' psychological readiness (Li & Xue, 2023; Millican et al., 2023). External factors such as resource availability and program structure intersect with internal factors like motivation, self-efficacy, and sense of belonging, shaping students' ability to participate meaningfully in research (Rajan et al., 2024).

Vietnam's higher education system is expanding and internationalizing, with Ministry of Education and Training policies emphasizing accreditation, autonomy (including self-approval of transnational programs under specific conditions), and partnerships that raise research capacity and quality (National Assembly of the Socialist Republic of Vietnam, 2018; Nguyen, 2023). These reforms include provisions for university autonomy that allow for the self-approval of transnational programs under specific conditions, fostering deeper global integration (British Council, 2022; Government of the Socialist Republic of Vietnam, 2018). Strategic documents and recent initiatives, such as Decision 89/QĐ-TTg (Project 89), target faculty development through PhD training and international research collaboration (Prime Minister of Vietnam, 2019). Parallel policy updates advocate for digital transformation and branch campus growth, which aim to expand access to research-rich courses and international collaborations across the nation (Pham, 2023). However, uneven resources across institutions and student affordability and mental-health concerns remain salient, requiring deliberate support (e.g., mentorship training, and research-infused assessments) to turn system-level reforms into equitable undergraduate research engagement (Nguyen & Hong, 2025;

NSSE, 2022).

Investigating barriers to undergraduate research engagement is essential because these obstacles, ranging from lack of mentorship and research skills to psychological barriers like low self-efficacy, directly affect students' academic development and career trajectories (Adebisi, 2022; Amelung & Helmke, 2025). In Vietnam, where higher education is undergoing rapid transformation, understanding these barriers can inform institutional strategies to embed research into teaching, strengthen mentorship systems, and design inclusive programs that reduce inequities. Addressing these challenges will improve student outcomes and contribute to building a research-oriented academic culture critical for national competitiveness in a knowledge-based economy (Mantai et al., 2024; Tran et al., 2023).

1.2 Research Questions

To address the research problem, this study is guided by two research questions:

1. How do undergraduate English majors at Thu Dau Mot University perceive practical barriers to research engagement?
2. How do students perceive psychological barriers to research engagement?

2. Literature Review

2.1 Factors Shaping Undergraduates' Engagement with Research

Contemporary work continues to frame student engagement as a multidimensional construct, including behavioural, cognitive, and affective, and links it to positive academic outcomes, well-being, and persistence. These framing matters because engagement with research is typically embedded within broader engagement with learning and high-impact practices. Recent meta-analytic and mapping reviews in educational psychology show robust associations between engagement and achievement and well-being, with notable variation across engagement subtypes and measurement approaches (e.g., stronger links between behavioural engagement and grades, affective engagement and subjective well-being). These syntheses highlight the need for conceptual refinement and attention to measurement in undergraduate contexts where research experiences are offered through mentored labs, course-based research, and capstone projects (Loyola-Carrillo et al., 2025; Wong et al., 2024).

Within higher education research, engagement is consistently facilitated by institutional structures (e.g., quality of HIPs, mentoring ecosystems), curriculum design, and students' identification with the university, all of which can support undergraduates into authentic research tasks and scholarly communities (Borja-Gil et al., 2024; Branchaw & Pfund, 2025; NSSE, 2022). At the level of research pedagogy, assessment designs and authenticity in research experiences emerge as levers for engagement: scoping studies of how undergraduate research is assessed call for fit-for-purpose criteria across disciplines, while theoretical and case-based work connects authenticity (e.g., supporting autonomy, competence, relatedness) to motivation and student well-being (Mantai et al., 2024; Walkington & Ommering, 2022).

Regionally, a systematic review of Southeast Asia finds that external or contextual drivers (e.g., institutional support, culture, program type) catalyse internal predictors (e.g., self-efficacy, motivation), with agentic engagement increasingly recognized alongside the classic three dimensions. These have implications for designing inclusive routes into undergraduate research across diverse higher education systems (Immanuella et al., 2023).

2.2 Practical Barriers to Research Engagement

Recent studies and practice reports point to recurring practical constraints that limit undergraduates' entry into and persistence in research: opaque application processes, limited slots in structured programs, time and funding pressures, and uneven access to mentors and research infrastructure. Evidence from program evaluations and sector analyses underscores that mentorship capacity, program structure, and institutional culture shape whether research experiences are equitable and high-quality, and strengthening mentorship ecosystems (e.g., training mentors, clarifying roles, building multi-layer supports) is repeatedly recommended to improve outcomes and reduce entry barriers (Branchaw & Pfund, 2025).

Empirical work also suggests that mentoring often acts indirectly (e.g., improving information literacy and competencies that are prerequisites for successful research participation), suggesting institutions should support the hidden curriculum of research (Cutillas et al., 2023). Practical constraints intensified during pandemic disruptions: remote UREs revealed students' limited access to technology, reduced peer interaction, and frictions in mentor-mentee communication. However, many reported comparable benefits and argued for remote or online formats to expand access going forward if programs proactively mitigate technology and communication barriers

(Alaee & Zwickl, 2023). In parallel, national engagement findings emphasize variability in high-impact practice quality (including research with faculty) and spotlight affordability and mental well-being as cross-cutting issues affecting students' ability to invest time in research, with institutional responses (e.g., better course structure, embedded research) linked to improved engagement (NSSE, 2022).

Finally, course-based undergraduate research experiences are argued to lower practical barriers by integrating research into credit-bearing courses, benefiting students who cannot take on extra-curricular research. Definitions and frameworks from the Council on Undergraduate Research support this integration and emphasize inclusive design across disciplines (Council on Undergraduate Research, 2022; Schroeder et al., 2022).

2.3 Psychological Barriers to Research Engagement

The most frequently cited psychological determinants of research engagement are research self-efficacy, motivational regulation, sense of belonging and scientific identity, and psychological flexibility. Self-efficacy predicts engagement and performance, and mediates the effects of motivation and instructional supports, underscoring the importance of early, supported research experiences to build efficacy beliefs (Kryshko et al., 2023; Meng & Zhang, 2023). Undergraduate-specific evidence indicates that prior research exposure and mentorship significantly boost research self-efficacy and interest, suggesting that staged experiences (e.g., research-infused assignments, guided mini-projects) can reduce anxiety about not being ready and counter self-doubt (Hill et al., 2022). Complementary work highlights psychological flexibility and achievement goals as antecedents of study engagement, implying that interventions (e.g., values clarification, adaptive goal setting) support persistence through research setbacks (Martinie & Shankland, 2024).

For equity considerations, first-generation students often face compounded psychological barriers (e.g., financial stress, lower perceived academic capital). However, recent analyses challenge deficit narratives by documenting effective help-seeking strategies when institutions offer navigable support networks. This points to the role of climate and advising in shaping belonging and research participation (Payne et al., 2023). Sector-wide, the pandemic's mental-health impacts and the shift to online learning affected motivation and well-being, with calls to support online research and learning and create structures that support autonomy and relatedness. Both are critical to sustaining research engagement (Aristovnik et al., 2023; Slack & Priestley, 2023; Walkington & Ommering, 2022).

2.4 Research Gap

Despite the growing body of research on undergraduate engagement, important gaps remain. Much of the existing literature examines practical and psychological barriers separately, with limited attention to how these factors interact in shaping students' research participation. Additionally, there is a lack of empirical evidence from Vietnamese higher education, particularly within English-major programs undergoing rapid curricular and institutional change. Addressing these gaps, the present study investigates how practical and psychological barriers jointly influence research engagement among undergraduate English majors.

2.5 Theoretical Framework

This study was guided by an integrated theoretical framework combining the concepts of the hidden curriculum, self-efficacy theory, and student engagement theory. These perspectives provided complementary lenses for understanding potential barriers that undergraduate students may encounter when attempting to engage in academic research.

2.5.1 Hidden Curriculum in Research Participation

The concept of the hidden curriculum refers to the implicit norms, expectations, and institutional practices that shape students' educational experiences but are rarely formally articulated in official curricula (Margolis, 2001). Within higher education, many academic practices, including participation in research, often rely on tacit knowledge that students are expected to acquire informally. Such knowledge may include understanding how to approach faculty supervisors, identifying potential research opportunities, or navigating academic networks.

Research participation can therefore function as part of the hidden curriculum of universities, where access depends on formal academic ability and students' awareness of institutional expectations and academic practices. The hidden curriculum framework provides a useful lens for examining how implicit institutional norms and informal academic practices may influence students' access to research opportunities.

2.5.2 Self-Efficacy and Psychological Barriers

This study also drew on self-efficacy theory developed by Albert Bandura. Self-efficacy refers to individuals' beliefs about their capabilities to organize and execute the actions required to perform specific tasks (Bandura, 1997). These

beliefs play a central role in shaping motivation, persistence, and willingness to engage in challenging activities.

In academic contexts, research self-efficacy refers to students' confidence in their ability to perform research-related tasks such as identifying research questions, applying research methods, analyzing data, and communicating findings. Students with stronger self-efficacy beliefs are generally more likely to engage in complex academic activities and persist when encountering difficulties (Bandura, 1997). Consequently, self-efficacy theory offers an important framework for examining how students' perceptions of their research abilities may influence their willingness to participate in undergraduate research.

2.5.3 Student Engagement Theory

The study further drew on student engagement theory, particularly the work of George Kuh, who conceptualized engagement as the time and effort students invest in educational activities that contribute to learning and development (Kuh, 2008). Student engagement theory emphasizes that meaningful learning experiences occur when students actively participate in academically purposeful activities supported by institutional structures.

Undergraduate research is widely recognized as one of the high-impact educational practices that promote deeper learning, critical thinking, and intellectual development (Kuh, 2008). However, engagement theory also highlights that institutional contexts shape students' opportunities to participate in such practices. Factors such as academic workload, institutional support structures, and access to mentoring can influence the extent to which students are able to engage in research activities.

These theoretical perspectives provide a comprehensive framework for examining the practical and psychological factors that may influence undergraduate students' engagement in academic research. This study conceptualized undergraduate research participation as shaped by the interaction of institutional structures, implicit academic norms, and students' psychological perceptions of competence. The hidden curriculum highlights the role of tacit institutional expectations in shaping access to research opportunities, self-efficacy theory emphasizes students' beliefs about their ability to conduct research tasks, and student engagement theory situates research participation within broader institutional and academic contexts.

3. Method

3.1 Research Design

This study adopted a convergent parallel mixed-methods design, as outlined by Creswell and Creswell (2017), to provide a comprehensive understanding of the barriers to research engagement among undergraduate students. This design was selected to leverage the strengths of both quantitative and qualitative approaches; the quantitative phase assessed the prevalence and severity of perceived barriers across a larger population, while the qualitative phase explored the nuances and underlying reasons for these obstacles through personal narratives. Data collection for both strands occurred concurrently, and the two datasets were analysed independently before being merged during the interpretation phase. This convergence allowed for a corroboration of findings, where statistical trends regarding practical and psychological barriers could be explained and contextualized by the students' experiences, resulting in a more robust analysis than either method could yield alone.

3.2 Population and Sampling

The study was conducted at Thu Dau Mot University (TDMU), a Vietnamese public university. The target population consisted of fourth-year undergraduate students majoring in English Studies. Convenience sampling was employed to recruit participants based on their accessibility and willingness to participate during the academic term. A total of 164 students completed the online questionnaire. This cohort was selected because, as final-year students, they have encountered the full spectrum of curricular requirements and are situated at a juncture where research engagement is often expected for graduation or future academic pursuits. This makes their perceptions of barriers particularly relevant. The participants' demographic information is given in Table 1.

From the initial quantitative sample, a sub-sample of eight students was selected for follow-up semi-structured interviews. These participants were recruited via a volunteer option included at the end of the survey. The interview group was composed of students who expressed a willingness to discuss their experiences in greater depth. The demographic profile of the wider sample reflected the gender distribution typical of the major, being predominantly female (81.7%). Furthermore, a significant majority (79.9%) did not possess a valid international English certificate, a factor relevant to the investigation of psychological barriers. All participants' identities were anonymized using numerical codes (e.g., Participant 1) for the qualitative reporting.

Table 1. Demographic Information of the Participants (N=164)

Category		Count	Percent
Gender	Female	134	81.7%
	Male	30	18.3%
Primary plans after graduation	Seeking employment in Vietnam	66	40.2%
	Applying for postgraduate studies abroad	41	25.0%
	Pursuing a Master's degree in Vietnam	25	15.2%
	I am not sure yet.	32	19.5%
Part-time job	No	49	29.9%
	Yes, 1-10 hours per week	41	25.0%
	Yes, 11-20 hours per week	57	34.8%
	Yes, more than 20 hours per week	17	10.4%
Valid international English certificate (e.g., IELTS, TOEFL)	Yes	33	20.1%
	No	131	79.9%

3.3 Research Instruments

The questionnaire used in this study was developed based on an extensive review of relevant literature on undergraduate research engagement, particularly focusing on practical and psychological barriers. Prior to the main data collection, the questionnaire was piloted with a small group of students who shared similar characteristics with the target population. The purpose of the pilot study was to assess the clarity, wording, and internal consistency of the items. Reliability analysis was conducted using Cronbach's Alpha. The results indicated acceptable levels of internal consistency across the scales (Table 2).

Table 2. Reliability Analysis of the Questionnaire

Scale	Number of Items	Cronbach's Alpha
Practical barriers	7	0.89
Psychological barriers	5	0.86
Overall instrument	12	0.91

The semi-structured interview protocol was also piloted. The pilot interviews were conducted to evaluate the clarity, relevance, and sequencing of the questions, as well as their effectiveness in eliciting detailed responses related to students' experiences with research engagement. Feedback from these pilot interviews informed refinements to the interview guide.

3.4 Data Collection

Data were collected during the second semester of the 2025-2026 academic year. Quantitative and qualitative data were gathered within the same general time frame. For the quantitative strand, an online questionnaire was distributed to fourth-year English-major students through institutional communication channels and class groups. The questionnaire consisted of three sections, including demographic information, items measuring perceived practical and psychological barriers to research engagement. Barrier items were rated on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Participation was voluntary, and informed consent was obtained electronically before respondents accessed the questionnaire.

For the qualitative strand, a volunteer invitation was included at the end of the survey. Students who indicated their willingness to participate in a follow-up interview were contacted by the researcher. Eight participants were subsequently selected and interviewed using a semi-structured interview protocol. The interviews explored students' experiences with research participation, perceptions of practical constraints, confidence in conducting research, experiences contacting supervisors, and fears or concerns related to research involvement. Each interview lasted approximately 30-45 minutes and was conducted in a quiet setting convenient for the participants.

3.5 Data Analysis

Quantitative data from the questionnaires were cleaned and processed. Descriptive statistics, including frequencies

and percentages, were used to analyse the demographic variables. Means (M) and Standard Deviations (SD) were calculated for each item on the Likert scale. These statistical measures facilitated the ranking of practical and psychological barriers by intensity, providing a macroscopic view of the structural and internal obstacles facing the student body.

Qualitative data from the semi-structured interviews were audio-recorded, transcribed verbatim, and analysed using the six-phase thematic analysis framework proposed by Braun and Clarke (2006). This iterative process involved familiarization with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the final report. The quantitative and qualitative results were integrated (Creswell & Creswell, 2017), where interview narratives provided explanation for the quantitative patterns, allowing the researcher to draw inferences regarding the complex nature of student research engagement.

4. Results

This section presents the findings from both quantitative and qualitative strands of the study, integrated to provide a comprehensive understanding of the barriers to undergraduate research engagement. The results are organized into two thematic categories, including practical and psychological barriers, reflecting the dual nature of constraints identified in the literature and confirmed by the data.

4.1 Practical Barriers

The first sub-section examines structural and situational factors that impede students' ability to participate in research (Table 3). The analysis highlights how these barriers are rooted in systemic curricular design and socioeconomic realities rather than individual time-management issues.

Table 3. Students' Practical Barriers

Item	SD	D	N	A	SA	Mean	SD
Difficulty balancing research with coursework	1	3	15	55	90	4.41	0.81
	0.6%	1.8%	9.1%	33.5%	54.9%		
Difficulty balancing research with part-time employment	8	10	26	60	60	4.03	1.15
	4.9%	6.1%	15.9%	36.6%	36.6%		
Difficulty balancing research with extracurriculars	10	20	44	55	35	3.58	1.16
	6.1%	12.2%	26.8%	33.5%	21.3%		
Prioritizing required courses	0	2	12	45	105	4.54	0.70
	0.0%	1.2%	7.3%	27.4%	64.0%		
Coursework requirements	3	5	20	76	60	4.13	0.93
	1.8%	3.0%	12.2%	46.3%	36.6%		
Maintaining a certain GPA	1	4	15	64	80	4.33	0.86
	0.6%	2.4%	9.1%	39.0%	48.8%		
Completing a set number of credits	2	6	20	80	56	4.11	0.93
	1.2%	3.7%	12.2%	48.8%	34.1%		

The data reveals that students perceive overwhelming practical and academic barriers to research. The strongest agreement was on prioritizing required courses ($M = 4.54$), with 91.4% ($n=150$) of students agreeing or strongly agreeing this is a barrier. This was immediately followed by difficulty balancing research with coursework ($M = 4.41$) and maintaining a certain GPA ($M = 4.33$). These high means and low standard deviations ($SD < 0.90$) indicate a strong consensus. Other practical barriers like coursework requirements ($M = 4.13$), completing a set number of credits ($M = 4.11$), and difficulty balancing with part-time employment ($M = 4.03$) also scored very high, confirming that students feel constrained by time, academic pressure, and financial obligations.

The qualitative data converged strongly with the survey results, indicating that students perceive overwhelming practical and academic barriers to research. Time constraints are a conflict between survival needs (academic and financial) and research aspirations. The thematic analysis identified three primary themes:

1. The primacy of GPA preservation
2. The double shift of employment and study
3. Structural rigidity of the curriculum.

Theme 1: The primacy of GPA preservation

This theme directly reinforces the survey finding that prioritizing required courses ($M = 4.54$) is the most significant barrier for the students. The participants consistently defined research as a risk to their academic standing. The fear of a dropping GPA, which the students view as an advantage for future employment or scholarships, often negatively affects their ability to engage in extracurricular inquiry.

Describing the immense pressure to maintain high grades, one student noted that research feels like a dangerous distraction from their core responsibility:

I actually really want to join a research lab, but I am terrified that if I dedicate time to it, my grades in the required subjects will slip. At the end of the day, employers look at my transcript first, not my potential research papers. I have to protect my GPA at all costs. (Participant 1)

Echoing this sentiment, another participant explained how the intensity of the coursework leaves no mental bandwidth for the creativity required in research:

The workload for our major is heavy, with assignments due almost every other day. By the time I finish the required reading and homework to keep my grades up, my brain is fried. I physically cannot find the energy to do extra research work. (Participant 4)

These responses suggest that students view research and coursework as a sacrifice where academic performance must be prioritized. Research is perceived as a potential threat to academic success. Institutional emphasis on performance metrics such as GPA may inadvertently discourage engagement in non-assessed or extracurricular academic activities. This suggests a misalignment between institutional expectations and students' strategic decision-making, leading them to prioritize activities that yield immediate academic rewards over longer-term developmental opportunities such as research.

Theme 2: The double shift of employment and study

The survey data indicated that difficulty balancing research with part-time employment ($M = 4.03$) was a major constraint. The interviews provided a context to this statistic. With demographic data showing a significant portion of the population working between 11 and over 20 hours per week, the qualitative findings reveal that for many students, free time is actually work time, leaving no space for research activities.

Highlighting the financial necessity that overrides research interests, one participant explained:

I work 20 hours a week at a coffee shop to pay for my living expenses. I have class in the morning and work in the evening. If I took on a research project, I would have to quit my job, and I simply can't afford to do that right now. (Participant 5)

Another student described the exhaustion resulting from this dual burden, noting how it filters out optional activities like research:

It is a matter of survival versus distinctiveness. Research would make me stand out, but my part-time job keeps me fed. When I have a spare moment, I choose sleep because I am exhausted from juggling shifts and school. (Participant 2)

These narratives confirm that financial obligations create a hard barrier to entry. Part-time employment is essential for sustaining the students' living expenses, leaving limited time and energy for unpaid academic activities such as research. This barrier is one of competing priorities shaped by socioeconomic necessity. This finding suggests that without financial or institutional support, opportunities for research participation may remain inaccessible to students who must balance both academic and economic survival.

Theme 3: Rigidity of the curriculum

The final theme corresponds to the survey items regarding completing a set number of credits ($M = 4.11$) and general coursework requirements. Participants expressed frustration with a rigid academic structure that does not integrate research into the standard credit system, making research a burden rather than an integrated learning experience.

One participant criticized the lack of flexibility in the schedule, pointing out that the sheer volume of contact hours prevents engagement:

Our schedule is packed from Monday to Friday with mandatory credits. If the university wants us to do research, they should make it part of the curriculum or give us credit for it. Right now, it feels like we are being punished with extra work if we try to do research. (Participant 7)

Reinforcing the idea that the system itself is the barrier, another student remarked:

I tried to look for a gap in my timetable to meet with a supervisor, but there is just no room. Between the required credits we have to complete to graduate on time and the fixed class schedules, research is physically impossible to fit in. (Participant 3)

These insights suggest that without structural changes to how credits are awarded, research will remain inaccessible to the majority. Institutional design may unintentionally restrict flexibility, leaving little room for exploratory or self-directed academic activities. Such rigidity may discourage participation in high-impact practices like research, as students prioritize completing mandatory coursework within a constrained academic structure. Because research engagement is not embedded within the formal curriculum, it becomes conditional on available time.

4.2 Psychological Barriers

The second sub-section explores internal challenges that hinder research engagement (Table 4). These psychological barriers, often intertwined with language proficiency, reveal the hidden curriculum that students struggle to navigate. The findings underscore the need for institutional interventions that address both skill development and socialization into research practices.

Table 4. Student's Psychological Barriers

Item	SD	D	N	A	SA	Mean	SD
Low confidence in designing research tasks	5	15	40	59	45	3.81	1.12
	3.0%	9.1%	24.4%	36.0%	27.4%		
Low confidence in carrying out research	6	20	40	60	38	3.73	1.14
	3.7%	12.2%	24.4%	36.6%	23.2%		
Uncertainty about how to identify research supervisors	4	10	30	60	60	3.99	1.11
	2.4%	6.1%	18.3%	36.6%	36.6%		
Uncertainty about how to contact research supervisors	3	8	28	60	65	4.07	1.09
	1.8%	4.9%	17.1%	36.6%	39.6%		
Fear of failure discouraging proposal of own research ideas	5	12	32	60	55	3.90	1.13
	3.0%	7.3%	19.55	36.6%	33.5%		

Students reported significant psychological barriers. The most prominent was uncertainty about how to contact research supervisors ($M = 4.07$), closely followed by uncertainty about how to identify supervisors ($M = 3.99$). This suggests a critical knowledge gap in navigating the hidden curriculum of academia. Furthermore, fear of failure ($M = 3.90$) and low confidence in designing research tasks ($M = 3.81$) both scored high, indicating that even if students had the time, a lack of confidence and fear of rejection prevented them from taking initiative. The high standard deviations for these psychological items suggest that while many students feel this way, the level of fear and uncertainty varies more than the near-universal agreement on practical barriers.

The qualitative analysis delves into the students' internal struggles. It yielded three dominant themes:

1. Navigating the hidden curriculum of supervisor engagement
2. Skill deficits
3. Perfectionism and fear of judgment.

Theme 1: Navigating the hidden curriculum of supervisor engagement

The quantitative data identified uncertainty about how to contact research supervisors ($M = 4.07$) and uncertainty about how to identify supervisors ($M = 3.99$) as the two highest psychological barriers. This theme captures the students' profound confusion regarding academic protocol. The participants described a hidden curriculum (i.e., unspoken rules about hierarchy and communication) that they felt ill-equipped to navigate. They expressed a desire to research but were stopped by the initial social hurdle of initiation.

Describing the paralyzing anxiety of drafting that first email, one student admitted that the lack of a clear template or

guideline results in avoidance:

I spent three days writing an email to a professor whose work I admire, but I never sent it. I kept worrying that my language was too informal or that I was bothering them. I don't know the rules for how a student is supposed to talk to a researcher, so I just gave up to avoid being rude. (Participant 2)

Another participant highlighted that this uncertainty extends to simply knowing *who* is available, reinforcing the survey data regarding the difficulty of identifying supervisors:

There is no list or website that tells us which teachers are looking for students. We are expected to just 'know' or ask around, but as a second-year student, I feel too small to approach them. It feels like a secret club that I don't have the password for. (Participant 6)

The difficulty students experience in identifying and contacting research supervisors reflects the influence of the hidden curriculum in higher education. This pattern suggests a deeper lack of access to implicit academic norms governing hierarchy, initiative, and professional interaction. The students appear constrained by uncertainty about how to appropriately engage with faculty, leading to hesitation or avoidance. As such, research participation is shaped by tacit knowledge that is unevenly distributed among the students. From this perspective, the barrier lies in the opacity of institutional practices, and the absence of clear guidance limits students' ability to initiate and sustain research involvement.

Theme 2: Skill deficits

While the survey indicated low confidence in carrying out research ($M = 3.73$), the interviews revealed that this lack of confidence is often rooted in specific perceived deficits, particularly regarding language proficiency and academic literacy. Demographic data indicated that 79.9% of the participants do not possess an international English certificate (e.g., IELTS, TOEFL). This statistic contextualizes the interview findings, where students frequently cited language barriers as a primary reason for feeling unqualified to join research projects which often require reading international journals.

Expressing deep insecurity about their academic foundation, one participant remarked:

When I read research papers, I understand maybe 40% of the vocabulary. How can I possibly contribute to a study if I can't even read the background literature? I feel like I would just be a burden to the team rather than a helper. (Participant 3)

Expanding on this sense of inadequacy, another student described a general feeling of being an imposter compared to the perceived genius of researchers:

I look at the researchers, and they seem to know everything. I am just a normal student trying to pass my classes. I don't feel smart enough to create new knowledge. I feel like if I tried, I would be exposed as a fraud. (Participant 8)

These quotes illustrate that the low confidence reported in Table 3 is deeply intertwined with students' self-assessment of their hard skills (language) and soft skills (intellectual capability). This pattern suggests deeper issues related to research self-efficacy. The students appear to evaluate their abilities against an idealized standard of competent researchers, and this leads to feelings of inadequacy and reluctance to engage. This indicates that the barrier is psychological. From a self-efficacy perspective, this lack of confidence may reduce students' willingness to attempt research activities, even when opportunities are available.

Theme 3: Perfectionism and fear of judgment

The survey item fear of failure discouraging proposals of own research ideas scored a mean of 3.90. The qualitative data clarifies that this fear is about the reputational damage associated with bad ideas. The high standard deviations observed in the survey data suggest that while this fear is intense, it manifests differently among students: some fear bad grades, while others fear social embarrassment.

Illustrating the fear that their ideas are not novel or academic enough, one participant explained:

I have ideas, but I keep them to myself. I am terrified that if I say them out loud, the lecturer will laugh or think I am stupid. It is safer to just follow instructions than to risk proposing something that might be wrong. (Participant 1)

Another student noted that the high stakes of their future plans, seeking employment or scholarships, makes the risk of failure unacceptable:

If I do research and it fails, I have wasted months that I could have spent studying for my final exams. I cannot afford a failure on my record. It feels like walking on a tightrope; if I fall, I lose everything. (Participant 5)

This theme deepens the understanding of the quantitative results by suggesting that the fear of failure is an active deterrent that silences student voice and creativity before a project even begins. The students appear to associate research with high standards of originality and expertise, and this leads them to avoid participation unless they feel fully prepared. When the desire to avoid mistakes outweighs the willingness to experiment or learn through failure, this can be viewed as a form of maladaptive perfectionism. This fear may undermine students' confidence and discourage active engagement, particularly in contexts where failure is perceived as carrying significant academic or social consequences.

5. Discussion

The discussion interprets the findings in relation to the key themes identified in the literature review, particularly the interaction between practical constraints, psychological barriers, and implicit institutional norms. These findings support earlier arguments presented in Section 2, and at the same time, extend them by highlighting how these factors interact within a specific institutional and cultural context.

5.1 Practical Barriers: Structural Constraints and Academic Survival

The findings reveal that practical barriers are structural with the students perceiving research engagement as incompatible with academic survival. The highest-rated constraint, which is 'prioritizing required courses' ($M = 4.54$), reflects a systemic conflict between GPA maintenance and research participation. This aligns with previous studies emphasizing that curricular rigidity and assessment structures often position research as an add-on rather than an integrated component of learning (Mantai et al., 2024; Walkington & Ommering, 2022). The students' fear of GPA decline echoes Millican et al.'s (2023) observation that academic performance metrics dominate student priorities, which negatively affects high-impact practices like research. However, the present study extends this literature by suggesting that the students interpret these constraints as risks to GPA, and this highlights a stronger perception of academic trade-offs in the Vietnamese context.

Financial obligations further compound these barriers. With nearly 45% of the participants working more than 10 hours weekly, the theme of the double shift illustrates how economic survival competes with academic enrichment. This finding supports Adebisi (2022) and Amelung and Helmke (2025), who argue that unpaid research opportunities disproportionately disadvantage students from lower-income backgrounds. Similarly, the lack of credit-bearing research options at TDMU mirrors global calls for embedding research into curricula to reduce opportunity costs (Branchaw & Pfund, 2025; Schroeder et al., 2022).

These structural barriers can be interpreted through the theoretical lenses guiding this study. From a student engagement perspective, undergraduate research is considered a high-impact practice that requires both institutional support and available student time (Kuh, 2008). When academic structures prioritize GPA maintenance and course completion, students may perceive research as an additional burden. At the same time, the limited availability of credit-bearing research opportunities and unclear pathways to participation reflects elements of the hidden curriculum, where access to valuable academic experiences tends to depend on implicit institutional knowledge rather than explicit guidance (Margolis, 2001). Consequently, institutional arrangements may shape the students' engagement decisions and reinforce the perception that research participation is incompatible with academic and economic survival.

5.2 Psychological Barriers: Navigating the Hidden Curriculum and Self-Efficacy Gaps

Psychological barriers emerged as equally significant, centring on uncertainty about supervisor engagement and pervasive self-doubt. The highest mean score ($M = 4.07$) for uncertainty about how to contact research supervisors underscores the opacity of academic norms. This phenomenon is aptly described as the hidden curriculum. This finding parallels Payne et al.'s (2023) work on first-generation students, which emphasizes the role of institutional transparency in mitigating social anxiety. The students' narratives of drafting unsent emails and fearing impropriety reflect a lack of procedural knowledge rather than disinterest, echoing Branchaw and Pfund's (2025) call for structured mentorship ecosystems.

Low confidence in research design ($M = 3.81$) and fear of failure ($M = 3.90$) further illustrate the interplay between skill deficits and perfectionism. The demographic insight that nearly 80% of participants lack international English certification contextualizes these anxieties, as language barriers amplify feelings of inadequacy. This pattern is consistent with Meng and Zhang's (2023) findings on self-efficacy as a predictor of engagement. Interview themes of

self-doubt and negative impact of perfectionism resonate with Martinie and Shankland's (2024) argument that psychological flexibility and adaptive goal-setting are critical for sustaining engagement.

These results also align with Walkington and Ommering (2022), who link authentic research experiences to improved well-being, suggesting that early, supported exposure could counteract fear and build confidence. However, the absence of such support creates a cycle where students avoid research to protect their academic standing and self-image. Addressing these barriers requires interventions beyond skill training (e.g., transparent communication protocols, mentorship matching systems, and resilience workshops) to dismantle the hidden curriculum and normalize failure as part of scholarly growth.

These psychological barriers can be further understood through the theoretical lenses guiding this study. The uncertainty surrounding how to contact supervisors reflects elements of the hidden curriculum introduced in section 2.4, where access to academic opportunities depends on tacit institutional knowledge rather than explicit guidance (Margolis, 2001). The current study provides empirical evidence of how this hidden curriculum operates in practice, shaping students' uncertainty and hesitation in approaching supervisors. At the same time, the students' fear of failure and low confidence in research design can be interpreted through self-efficacy theory, which emphasizes that individuals' beliefs about their capabilities influence their willingness to engage in challenging tasks (Bandura, 1997). Within this context, limited familiarity with research practices may reduce students' perceived competence, and discourage participation in research activities. These perspectives highlight how both implicit institutional norms and students' self-perceptions potentially shape their engagement with undergraduate research.

6. Conclusion

6.1 Summary of Key Findings

The study reveals that students perceive overwhelming practical and academic barriers that stifle research engagement. The strongest consensus was found regarding practical constraints, with 91.4% of participants agreeing that prioritizing required courses is a primary barrier, closely followed by the difficulty of balancing research with coursework and the pressure to maintain a certain GPA. Financial obligations also play a significant role, as evidenced by the high mean score for difficulty balancing research with part-time employment. On the psychological front, students reported a critical knowledge gap in navigating the hidden curriculum, specifically citing uncertainty about how to identify and contact research supervisors as the most significant psychological hurdles. Furthermore, fear of failure and low confidence in designing research tasks were prominent, suggesting that even if time permitted, internal anxieties regarding capability and rejection remain strong deterrents.

6.2 Limitations and Recommendations for Future Research

This study is subject to several limitations that may affect the generalizability of the findings. First, the sample size of 164 participants, while sufficient for initial trends, is relatively small and may not capture the variance across different student populations. Second, the demographic data reveals a significant gender imbalance, with 81.7% of the participants being female, which may skew the perceptions of barriers. Furthermore, the majority of participants (79.9%) did not possess an international English certificate, suggesting that the findings regarding confidence and capability might be particularly acute for students with lower language proficiency and may not apply to more linguistically proficient groups. Finally, the study relies on self-reported data, which is susceptible to social desirability bias where students might underreport or overreport certain anxieties.

Future research should aim to expand the demographic scope to include a more balanced gender ratio and a wider variety of academic disciplines to determine if these barriers are universal or discipline-specific. Longitudinal studies would be valuable to track how the perception of these barriers evolves from the first year to the final year of study. Additionally, further investigation is needed to explore the specific impact of financial constraints on research engagement by comparing students with significant part-time work obligations against those without. Researchers should also consider experimental designs that test specific interventions, such as mentorship programs or credit-bearing research courses, to measure their effectiveness in reducing the reported psychological and practical barriers.

6.3 Implications

To address these challenges, university administrators and faculty must recognize that research engagement is currently viewed by students as a competitor to academic survival rather than a component of it. Institutions should consider curriculum reforms that integrate research projects into required coursework or offer academic credits for research assistantships, thereby alleviating the conflict between GPA maintenance and research involvement.

Additionally, to lower psychological barriers, faculties should transparently structure the mentorship process by creating accessible databases of supervisors and standardizing communication protocols. Providing targeted workshops on research methodology and academic resilience could also help mitigate the fear of failure and low confidence reported by students.

6.4 Conclusion

This study suggests that undergraduate resistance to research may stem from systemic practical constraints and significant psychological anxieties. The data indicates a survival mode mentality where the pressure to prioritize required courses, maintain a high GPA, and manage part-time work leaves little room for extracurricular inquiry. These practical hurdles are compounded by a lack of transparency in how to navigate supervisor relationships and a pervasive fear of failure. Consequently, fostering a vibrant research culture requires more than just encouragement. It demands structural changes that accommodate students' time constraints and supportive mechanisms that bridge the gap between student ability and academic expectations.

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