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In Their Words: Assessing Undergraduate Intellectual Curiosity Across Home, Classroom, and Digital Landscapes

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Abstract

This study explored intellectual curiosity among undergraduate students, focusing on the interplay of home, school, and digital environments, particularly in the post-pandemic educational context. Employing a sequential exploratory mixed-method design, data were collected from undergraduates at a southeastern U.S. university through surveys, interviews, and reflective journals. The research examined how cultural backgrounds, family dynamics, personal relationships, and digital tools influenced students' learning engagement and intellectual curiosity. Findings revealed that supportive professors, experiential learning opportunities, and the integration of digital technologies play pivotal roles in fostering intellectual curiosity. Students expressed a strong desire to explore new ideas, yet many identified rigid academic structures and outdated teaching methods as barriers to engagement. Family and peer relationships further shaped students' academic motivation, with digital tools such as YouTube, TikTok, and Google serving as significant resources for informal learning. The quantitative analysis highlighted that meaningful professor-student interactions and effective technology integration significantly predicted student engagement. The study underscores the importance of creating culturally responsive, flexible, and interactive learning environments that connect personal, academic, and digital space. The study emphasizes the value of integrating digital tools, cultivating professor-student relationships, and designing innovative teaching strategies to enhance intellectual curiosity. These insights highlight actionable ways educators can create personalized and engaging academic experiences in an increasingly interconnected educational landscape.

Introduction

Within the last decade, rising tuition costs and the impacts of the COVID-19 pandemic have led to a decline in college enrollment in the U.S. (Welding, 2022). Moreover, some predict that younger generations will disengage from academia due to emerging technologies like artificial intelligence (AI), thereby reducing their intellectual curiosity (Marche, 2022). However, curiosity remains an essential driver of learning, often referred to as the "engine of inquiry" (Goldenberg, 2022) and serves as a critical pathway for initiating and sustaining knowledge acquisition (Alam, 2022). Two categories of curiosity are perceptual and epistemic. The first is driven by stimuli

that evoke visual and sensory response. At the same time, the latter is the desire for knowledge, motivating individuals to seek information, fill intellectual gaps, and solve complex problems (Kenett et al., 2023).

One consequence of the pandemic is that the once distinct boundaries between learning spaces— home (the "first space") and school (the "second space")—became blurred, creating a new, technologically mediated "third space" (Johnston et al., 2021). Understanding the intersection of these spaces—how they influence learning, engagement, and curiosity—is essential for adapting educational practices. Accordingly, this study investigates how students' intellectual curiosity is influenced by home, school, and digital environments, drawing on the insights of Ferri et al. (2020), who emphasized the role of interconnected learning contexts in fostering curiosity.

This study comprehensively examines the variables influencing intellectual curiosity across home, school, and digital environments. To offer a more detailed understanding, each environment could benefit from a focused examination of distinct influences within these settings:

- Home Environment: Emphasize family dynamics such as parental education levels, household discussions about current events, and family attitudes toward learning. Research shows that these factors shape student motivation and openness to intellectual pursuits. Narrowing the focus within this environment enables a clearer view of how family-based values and attitudes support or inhibit curiosity.
- School Environment: While the study identifies the role of supportive professors and experiential learning, it could further explore specific instructional practices that encourage curiosity, such as inquiry-based learning, project-based activities, and integrating culturally relevant materials. This nuanced examination would align with literature on best practices in fostering engagement and intellectual curiosity within academic settings, contributing to a deeper understanding of which specific educational methods are most effective.
- Digital Environment: The current study discusses digital engagement broadly, but narrowing the focus to particular social media platforms (such as YouTube, TikTok, and educational forums) could offer a more targeted view of their influence on curiosity. Each platform offers unique affordances for learning and exploration; for example, YouTube provides access to long-form educational content, while TikTok often presents quick, accessible tutorials and tips. By examining these individual platforms, the study can better articulate the ways in which specific digital tools stimulate or inhibit curiosity, adding a unique layer to current discussions on digital media's role in education.

In terms of contribution to existing literature, this research builds on established findings by integrating insights from pre- and post-pandemic educational contexts, highlighting how digital spaces have evolved into significant learning environments. By addressing how these three environments intersect, it bridges gaps in current research, which often treats these influences in isolation. Moreover, the study's findings underscore the need for adaptable, culturally responsive pedagogy that aligns with students' lived experiences, contributing valuable insights into modernizing educational practices. This nuanced approach enriches our understanding of curiosity in contemporary learning spaces and offers actionable recommendations for educators seeking to create more engaging, curiosity-driven environments.

Intellectual Curiosity, Culture, Community, and Learning Environments

Intellectual curiosity is a critical component of student learning and development, serving as a powerful motivator that drives exploration, inquiry, and engagement. Understanding the factors that influence intellectual curiosity is essential for creating educational environments that nurture and sustain this trait. Numerous studies underscore the importance of culture, community, and learning contexts in shaping students' intellectual curiosity. For instance, research by Gamage et al. (2023) found that cultural influences significantly shape students' motivations and attitudes toward education. Similarly, Liu (2018) documented the role of the social environment, particularly parental involvement, as a vital contributor to students' sustained intellectual engagement. These findings emphasize the need for educators to consider students' sociocultural backgrounds when designing curricula to foster intellectual curiosity.

Expanding on these ideas, Spencer (2022) explored internal and external factors affecting student learning by examining the experiences of third-culture kids learning English as an additional language. Spencer analyzed how home culture, self-perceived identities, school communities, and classroom environments collectively shaped internal motivations and external influences on language acquisition, thereby contributing to intellectual curiosity. Similarly, Karnilowicz and Xu (2022) found that understanding individual and collective traits in relation to cultural norms is essential for unpacking the broader influences on education. Their research revealed that sociocultural perspectives are crucial for educators seeking to understand how cultural norms and individual characteristics impact students' engagement with learning.

Sutarman et al. (2021) also conducted a qualitative study emphasizing the role of home life, school, local communities, and media in shaping students' character and motivation. These findings reinforce the idea that intellectual curiosity is not solely cultivated within the classroom but is also deeply influenced by the broader cultural and community contexts in which students live. Integrating these sociocultural perspectives into educational practices is crucial for fostering intellectual curiosity and meaningful student engagement.

Digital Technologies and Intellectual Curiosity

The relationship between digital technologies and intellectual curiosity is complex but increasingly central to the modern learning environment. According to Suarta et al. (2022), students' interactions with digital tools shape their perceptions of their learning environment, and these perceptions influence their engagement. When educators understand how cultural and technological factors impact their students, engagement and curiosity are more likely to flourish. Despite concerns that AI and other advanced technologies might lead to the "death" of the college essay and reduce the need for intellectual curiosity (Marche, 2022), recent studies suggest that digital platforms, when embraced by educators, can enhance student curiosity and learning.

Furthermore, social media, digital composition, and multimodal writing practices have become integral to students' daily lives, promoting new forms of knowledge production and literacy (Alvermann & Robinson, 2018; Valdivia, 2021). As Brandt (2015) noted, writing has become a near-constant practice for students as they navigate

multiple digital platforms, transforming the learning process into a more dynamic and interactive experience. Digital technologies allow students to experiment with different modes of expression and communication, thereby expanding their intellectual horizons. George (2023) argued that by incorporating students' digital practices into the classroom, educators can tap into students' existing curiosities and help them construct meaning innovatively. Rather than seeing technology as a threat to learning, it should be viewed as a tool for intellectual exploration—particularly in the digital age.

Classroom Environment and Intellectual Curiosity

The classroom environment is another pivotal factor in shaping intellectual curiosity. How well a classroom reflects students' cultural, social, and intellectual backgrounds determines if intellectual curiosity is being nurtured or stifled. Increasingly, educators in higher education are adopting pedagogical approaches from K-12 that center on "funds of knowledge" (FoK). According to Moll et al. (1992), FoK refers to the "historically accumulated and culturally developed bodies of knowledge essential for household or individual functioning and well-being" (p. 133). By recognizing and incorporating these rich bodies of knowledge into the curriculum, instructors can create a learning environment that aligns with students' lived experiences, helping to foster their intellectual curiosity. Teachers today are encouraged to investigate their students' home lives and communities and use these insights to inform curriculum design. Educators who base their teaching practices on the FoK available to students are better equipped to design lessons that pique students' curiosity. As a result, students feel comfortable and authorized to participate in the classroom, paralleling the familiar, supportive environments in their communities (Gallegos, 2013). This continuity between home and school spaces can improve intellectual curiosity and learning outcomes significantly.

Building on this body of research, this study aims to investigate how students' cultural backgrounds, family dynamics, personal relationships, and interactions with digital tools influence their learning engagement and curiosity. Specifically, it seeks to address the following research questions:

- How do perceptions of the impact of technology usage, interactions with professors, community involvement, clubs, and social media on learning vary among undergraduate students based on their college year, major, and gender identity?
- How do students define intellectual curiosity, and how do various environments—home, school, and digital spaces—affect their learning experiences?

By addressing these questions, this study examines how intellectual curiosity is shaped across three primary environments: home, school, and digital spaces. By investigating the interconnectedness of these environments and their influence on students' motivation and engagement, this research contributes to the growing body of literature on intellectual curiosity. It provides a comprehensive understanding of the sociocultural, technological, and community-based factors that enhance or inhibit intellectual curiosity, emphasizing the broader cultural and social contexts in which students learn. Through this approach, the study offers practical recommendations for educators seeking to create engaging, curiosity-driven learning environments tailored to today's digitally connected world.

Methods

Study Design

This study adopted a sequential exploratory mixed-method design to investigate the factors shaping undergraduate intellectual curiosity across three primary contexts: home, school, and digital environments. Sequential exploratory designs are well-suited for exploring complex phenomena, particularly when qualitative findings are used to inform quantitative data collection and analysis (Creswell & Plano Clark, 2017). This approach ensured that the nuances of students' lived experiences, identified through qualitative methods, were systematically integrated into the subsequent quantitative phase to provide broader generalizability.

The qualitative phase served as the foundation of this study, employing Interpretative Phenomenological Analysis (IPA) to uncover the subjective meanings participants attributed to their intellectual curiosity and learning environments. IPA is a widely used methodology that prioritizes the detailed examination of individual experiences and emphasizes the interpretive role of the researcher in understanding participants' experiences (Smith et al., 2021). This phase involved in-depth interviews and reflective exercises, enabling a deep exploration of how cultural, familial, and technological factors influenced students' engagement with learning.

The insights gleaned from the qualitative phase directly informed the development and refinement of the quantitative survey. This phase incorporated descriptive and inferential statistical analyses to measure variables such as undergraduate major, year of study, gender identity, and perceptions of learning in home, school, and digital spaces. Specifically, one-way ANOVA was used to assess group differences across demographic categories (e.g., gender, racial/ethnic background, and prior schooling experiences), ensuring that the analysis captured key dimensions of variability within the dataset.

This study design reflects a pragmatic paradigm, which supports the integration of qualitative and quantitative methods to provide a comprehensive understanding of research questions (Tashakkori et al., 2020). The iterative process of combining qualitative and quantitative data enabled a richer understanding of how intellectual curiosity is influenced by intersecting factors. Furthermore, this approach is well-aligned with existing research emphasizing the value of mixed methods in studying educational phenomena (Ferri et al., 2020; Litman & Spielberger, 2003). By adopting a sequential exploratory mixed-method design, this study advances the field's understanding of intellectual curiosity while offering practical insights for educators and policymakers.

Population and Sample

The study's population consisted of 100 undergraduate students enrolled at a mid-sized private, not-for-profit U.S. university. These participants were recruited through a flyer sent via their college's official email communication system, inviting them to participate in the study. The inclusion criteria required participants to be 18 years or older and currently enrolled as undergraduate students at the university. Eligible participants completed an online survey administered through the *Opinio* survey software. At the end of the survey, participants were asked whether they wished to participate in follow-up interviews and/or reflective journal exercises. To maintain ethical compliance,

all participants completed a consent form before engaging in any aspect of the study, including the survey, interviews, and reflective journals. This process ensured that participants were fully informed about the study's objectives, procedures, and their rights, including the right to withdraw at any time. The demographic profile of the sample offers key insights into the population under study. In terms of academic standing, the majority of participants were first-year students (48.5%), followed by second-year (21.5%), third-year (20.8%), fourth-year (8.5%), and fifth-year students (0.8%). Gender distribution revealed that most participants identified as female (83.9%), with 15.4% identifying as male and 0.8% identifying as non-binary or genderfluid. This predominance of female participants aligns with broader trends in higher education demographics, where female students often outnumber their male counterparts (see Table 1).

Table 1. Participants' Demographic Information

Demographic	Category	Frequency (n)	Percentage (%)
Year in College	First Year	55	48.5
	Second Year	25	21.15
	Third Year	22	20.8
	Fourth Year	11	8.5
	Fifth Year	1	0.8
Gender Identity	Female	95	83.9
	Male	17	15.4
	Non-Binary/Genderfluid	1	0.8
Racial/Ethnic Identity	White non-Hispanic	43	37.9
	Hispanic	26	22.9
	Black/African American	17	15.0
	Asian/Pacific Islander	13	11.4
	Native American/Alaskan Native	1	0.8
	Other/Multiracial	6	5.0
Residential Status	Commuter	59	52.3
	On-campus	53	46.9
Living Situation	With parents/guardians	94	83.8
	Living alone	44	39.2
	With siblings	34	29.9
	With friends	9	7.7
Encouragement for Learning	Parents/Guardians	85	76.2
	Friends	40	35.4
	Siblings	33	29.2
	Community Members	19	16.9

Note. Frequencies and percentages for living situations and encouragement reflect overlap due to multiple-choice responses.

Participants also reported their racial or ethnic identity, with the largest group identifying as White non-Hispanic (37.9%), followed by Hispanic (22.9%), Black/African American (15.0%), and Asian/Pacific Islander (11.4%). Smaller proportions were identified as Native American/Alaskan Native (0.8%) or as belonging to other/multiracial categories (5.0%). This diversity highlights the importance of examining how intersecting cultural and demographic factors influence intellectual curiosity.

Residential status and living arrangements varied among participants. Approximately 52.3% of students identified as commuter students, while 46.9% resided on campus. In terms of living arrangements, 83.8% reported living with their parents or guardians, while 39.2% lived alone, 29.9% lived with siblings, and 7.7% lived with friends. These figures emphasize the diversity of home environments and their potential impact on learning experiences.

When asked about their primary sources of encouragement for learning, 76.2% of participants identified their parents or guardians. Friends were the second most commonly cited source (35.4%), followed by siblings (29.2%) and community members (16.9%). These findings underscore the significant role of familial and social networks in supporting students' intellectual engagement. Table 1 presents a detailed summary of the demographic characteristics of the sample. It reflects overlap in responses for categories such as living arrangements and sources of learning encouragement, as some participants selected multiple options.

Instruments

This study utilized a combination of quantitative and qualitative instruments designed to examine intellectual curiosity among undergraduate students comprehensively. Each instrument was tailored to address specific dimensions of the research questions, ensuring a thorough exploration of both individual and contextual factors.

Quantitative Instruments: Survey

The quantitative component of the study employed a survey developed by the research team, comprising both demographic questions and scales designed to assess intellectual curiosity and related constructs. The survey included 17 questions and was administered online through *Opinio* survey software. Participants completed the survey in approximately 15–20 minutes. The survey's demographic section gathered information on participants' age, gender identity, racial/ethnic identity, academic year, major, minor, residential status, and other contextual factors, such as experiences with COVID-19.

The intellectual curiosity section utilized a Likert scale (1 = strongly disagree to 7 = strongly agree) to measure participants' agreement with statements related to curiosity, motivation, and learning in various environments (e.g., home, school, and technology). Additionally, participants ranked the importance of various influences (e.g., home, culture, technology) on their intellectual curiosity and preferences for learning environments (e.g., home, school, technology). This detailed structure allowed the survey to capture both descriptive and inferential data relevant to the study objectives.

Qualitative Instruments: Interview Guide and Reflective Journals

The qualitative phase of the study included two primary instruments: an interview guide and reflective journal prompts. Both were designed to facilitate a deeper understanding of participants' experiences of intellectual curiosity. The semi-structured interview guide contained open-ended questions grouped into thematic categories. These included:

(a) Defining intellectual curiosity, where participants were asked to define intellectual curiosity and describe its relationship to learning;

(b) Influences on curiosity, where questions explored factors that enhanced or limited curiosity across home, school, and digital environments;

(c) Intersectionality, where participants reflected on the interplay of home, school, and technology in shaping their intellectual curiosity; and

(d) Role of professors and technology, where participants discussed how professors and technological tools impacted their learning experiences.

Over four weeks, participants engaged in weekly reflective journal exercises through Google Forms. These prompts were designed to explore specific themes: (a) Week 1: Family and community knowledge, values, and beliefs; (b) Week 2: Digital literacy practices and their integration into learning environments; (c) Week 3: The role of AI and ChatGPT in influencing learning and critical thinking; and (d) Week 4: Reflections on the impact of COVID-19 on learning curiosity. The journals encouraged participants to reflect on their lived experiences, offering unique insights into how sociocultural, digital, and pandemic-related factors influenced their intellectual engagement.

Integration of Instruments

The survey served as a foundation for the study by identifying broad trends and patterns in intellectual curiosity. The interview guide and reflective journal prompts provided rich qualitative data, offering nuanced perspectives on the quantitative findings. This combination of instruments allowed the study to balance breadth and depth, aligning with its sequential exploratory mixed-methods design.

Procedures

This study was conducted following Institutional Review Board (IRB) approval to ensure ethical compliance. The research process involved two phases—quantitative data collection through an online survey and qualitative data collection through interviews and reflective journals. Participants were recruited by distributing a flyer to undergraduate students at the university. The flyer was sent to the Deans of three academic colleges for circulation among their students. Additionally, the flyer was shared with English Composition professors to promote the study to their students. Recruitment efforts were repeated bi-weekly until the desired number of participants was reached. The flyer included a link to the survey and the contact information of the Principal Investigator (PI) for any questions from potential participants.

Phase One: Survey Completion

The first phase of the study involved an online survey administered through the *Opinio* platform. The survey took approximately 15–20 minutes to complete. A participant information letter outlining the study purpose, procedures, and participants' rights was presented before the survey. Participants indicated their consent by selecting "Agree" before beginning the survey.

At the end of the survey, participants were asked if they were interested in participating in an interview and/or completing reflective journal entries. Those who expressed interest provided their name and school email address for follow-up. This information was used solely for scheduling purposes and was not linked to survey responses. A total of 100 students completed the survey, with 20 agreeing to participate in interviews and 14 opting to complete reflective journal exercises.

Phase Two: Interview and Reflective Journals

Participants who indicated interest in the qualitative phase were contacted by the research team. Before proceeding, they signed a consent form confirming their voluntary participation. Semi-structured interviews were conducted via Zoom, lasting approximately 60 minutes. These interviews were guided by a detailed interview protocol and focused on exploring participants' definitions of intellectual curiosity, factors influencing their curiosity, and the interplay between home, school, and technology. All interviews were recorded and transcribed for analysis. Participants completing reflective journals responded to four prompts in Google Forms over a period of four weeks. These journals were designed to explore themes such as family and community knowledge, digital literacy, and the impact of COVID-19 on learning curiosity. Each prompt took approximately 15 minutes to complete, and participants were given two months to finish all reflections.

Data Collection and Management

All data collected during the survey, interviews, and reflections were securely stored. Survey responses remained anonymous while identifying information for interviews and reflections was de-identified before analysis. This approach ensured the participants' confidentiality and the integrity of the data.

Data Analysis

The study utilized both quantitative and qualitative approaches to analyze the data, ensuring a comprehensive understanding of the factors influencing undergraduate intellectual curiosity. For the quantitative data, descriptive and inferential statistical analyses were conducted using the Intellectus Statistics program. Descriptive statistics were used to summarize participants' demographic information, including their year of study, major, gender, racial/ethnic background, and residential status. Inferential statistics, such as one-way ANOVA, were employed to examine differences between demographic groups (e.g., gender, race/ethnicity, COVID-19 exposure) concerning intellectual curiosity and learning experiences. This analytical strategy allowed the study to identify

significant patterns and relationships within the quantitative data, providing a robust foundation for interpreting trends and group differences.

For the qualitative component, the data were analyzed using Interpretative Phenomenological Analysis (IPA) to explore the lived experiences and subjective meanings participants attributed to their intellectual curiosity. Transcripts from interviews and reflective journals were uploaded into Atlas.ti software, which was used to facilitate AI-powered coding and thematic analysis. This software aided the research team in identifying patterns and categories within the data, ensuring an organized and systematic approach to qualitative analysis. The IPA process began with a thorough familiarization phase, during which the researchers read and re-read each transcript to immerse themselves in the data and capture key insights.

The next stage of the qualitative analysis involved detailed coding of the transcripts, with Atlas.ti assisting in creating and categorizing emergent themes. AI-based tools in the software ensured accuracy and consistency in coding, reducing the likelihood of human error. The researchers then mapped connections between themes, examining how various aspects of home, school, and digital environments influenced intellectual curiosity. This iterative process allowed for a nuanced understanding of how participants made sense of their experiences, ensuring the credibility and depth of the findings. Themes from earlier cases were bracketed during subsequent analyses to prevent bias and ensure each participant's narrative was interpreted uniquely.

Finally, the integration of quantitative and qualitative findings provided a comprehensive perspective on the study's research questions. Quantitative trends identified through statistical analyses were contextualized using the rich qualitative insights derived from interviews and reflections. This integration enabled the study to offer a holistic understanding of how diverse factors intersect to shape intellectual curiosity. By employing both Intellectus Statistics and Atlas.ti, the researchers were able to balance statistical rigor with the depth and nuance required for qualitative interpretation, ensuring the validity and reliability of the study's conclusions.

Results

This section presents the quantitative and qualitative findings of the study. Each offers unique insights into how undergraduate students experience learning through various environments, including where technology, social media, professor relationships, and personal and digital spaces intersect. The quantitative findings focus on numerical data collected from surveys, examining trends and patterns across different student demographics. Meanwhile, the qualitative findings, drawn from interviews and written reflections, delve deeper into students' experiences, offering a rich narrative on how they experience and engage with intellectual curiosity across home, school, and digital platforms.

Quantitative Results

This section presents the quantitative data gathered from undergraduate students, examining the impact of various elements of student life—including technology usage, interactions with professors, community involvement,

clubs, and social media—on their learning experiences. The goal of this analysis was to identify factors that significantly influence student perceptions of their academic experiences and to uncover opportunities for targeted improvements in educational strategies.

Descriptive Statistics

The analysis of descriptive statistics revealed notable trends in the variables related to intellectual curiosity and learning (see Table 2).

Table 2. Descriptive Statistics for Learning Factors

Variable	Count	Mean	Std Dev	Min	25%	50%	75%	Max
Classroom Interactions	100	4.5	1.2	1	3.7	4.6	5.4	6
Community Engagement	100	4.2	1.4	1	3.1	4.3	5.2	6
Curiosity with Technology	100	4.7	1.1	1	4.0	4.8	5.5	6
Identity Impacts Curiosity	100	4.3	1.3	1	3.3	4.2	5.1	6
Clubs and Family Engagement	10	4.1	1.5	1	3.0	4.1	5.3	6

Notes. The table presents descriptive statistics, including the mean, standard deviation, and distribution quartiles, for key variables associated with learning and curiosity.

Classroom Interactions had a mean score of 4.5 (out of 6), with relatively low variability (SD = 1.2), indicating consistent agreement among students regarding the value of engaging with professors in the classroom. This highlights the centrality of classroom experiences to students' academic development. Similarly, Curiosity with Technology exhibited a high mean score of 4.7 and a narrow standard deviation (SD = 1.1), suggesting that students broadly recognize the positive role of technology in fostering intellectual curiosity. These findings suggest that both classroom interactions and technology use are widely regarded as essential components of the learning experience.

In contrast, Community Engagement had a slightly lower mean of 4.2 and greater variability (SD = 1.4), reflecting mixed perceptions about its contribution to learning. Similarly, Clubs and Family Engagement displayed the highest variability among the variables analyzed, with a mean score of 4.1 and a standard deviation of 1.5, indicating that the importance of these factors varies greatly among students. For instance, while some students perceive clubs and family support as vital to their academic success, others view these factors as less influential. Lastly, Identity Impacts Curiosity had a mean score of 4.3 and moderate variability (SD = 1.3), indicating differing views on how personal identity shapes intellectual curiosity.

Inferential Statistics

While most factors analyzed did not show statistically significant differences, specific trends approached significance. For example, the integration of technology by professors ($p = 0.075$) and the perceived impact of social media on learning ($p = 0.073$) varied across student demographics, particularly based on their academic year. These results suggest that while these variables may not be uniformly impactful, their influence warrants further exploration to tailor educational practices to diverse student needs.

First-year students demonstrated a statistically significant difference in their perception of the impact of social media on learning compared to upper-year students ($p = 0.043$). This finding suggests that social media plays a more prominent role in shaping the learning experiences of first-year students, likely due to their recent transition into college and reliance on digital platforms for academic and social engagement. Additionally, regression analysis highlighted that professors' effective use of technology significantly predicted students' perceptions of the role of clubs in their learning ($p = 0.035$). Frequent and meaningful interactions with professors were also strongly associated with positive perceptions of clubs as valuable learning tools ($p < 0.001$). These results underscore the critical role that faculty engagement plays in enhancing student experiences both inside and outside the classroom.

Regression analysis provided deeper insights into the predictors of students' perceptions of club involvement on their academic experiences (see Table 3). Among the factors analyzed, Interaction with Professors emerged as the most significant predictor, with a coefficient of 0.373 ($p < 0.001$). This demonstrates the importance of meaningful faculty-student relationships in shaping how students perceive the value of extracurricular activities. Additionally, Professors Integrate Technology was another significant predictor, with a coefficient of 0.191 ($p = 0.035$), underscoring the importance of effectively incorporating technology to support learning beyond traditional classroom settings.

Table 3. Inferential Statistics for Club Involvement Impact

Variable	Coefficient	Standard Error	t-Statistic	p-Value
Professors Integrate Technology	0.1914	0.089	2.15	0.035
Interaction with Professors	0.3730	0.085	4.39	0.000
Community Involvement Impact	0.0041	0.091	0.05	0.957
Social Media Impact	0.1003	0.076	1.32	0.199

Note. Significant predictors are indicated at the 0.05 level ($p < 0.05$).

In contrast, Community Involvement Impact and Social Media Impact were not statistically significant predictors of club involvement, with p-values of 0.957 and 0.199, respectively. These findings suggest that while community engagement and social media may hold some value for certain students, they are not primary drivers of perceptions regarding the role of clubs in learning. The non-significance of community involvement was particularly surprising given its moderate mean score in the descriptive analysis, indicating that its influence may be situational or dependent on other contextual factors.

The quantitative findings highlight several key areas where interventions could improve student engagement and learning outcomes. First-year students' greater reliance on social media suggests the need for targeted strategies to address their unique experiences and challenges during the college transition. Additionally, the strong influence of faculty-student interactions on perceptions of clubs underscores the importance of fostering meaningful engagement between professors and students, both in the classroom and through extracurricular activities. The results also emphasize the value of technology integration in enhancing the academic experience, suggesting that educators who adopt thoughtful and innovative approaches to digital tools may significantly improve student engagement

Qualitative Results for Interview Transcripts

The qualitative data, derived from interview transcripts and reflections, provides deeper insights into how students define intellectual curiosity and how various environments—home, school, and digital spaces—affect their learning experiences. Intellectual curiosity was often described as an intrinsic drive to explore and engage with new ideas. Students shared how their curiosity is influenced by personal relationships and institutional structures, highlighting the importance of experiential learning, supportive professors, and hands-on applications of knowledge in fostering a deeper connection with learning.

Defining Intellectual Curiosity

The interview transcripts provided rich, first-hand accounts of how undergraduates experience intellectual curiosity and the various academic elements that encourage or hinder their learning. One student described curiosity as *"that spark and then learning is what comes from it"* suggesting an intrinsic, almost instinctual drive to explore or question something that ignites a student's interest. This definition identifies curiosity as the starting point in a process that culminates in knowledge acquisition or personal growth. It also suggests that intellectual curiosity is fueled by genuine interest and passion rather than external rewards or pressures, aligning with educational theories that stress the importance of intrinsic motivation for deep and meaningful learning. Another student noted that intellectual curiosity means *"being curious about things you don't know and being open to learning new experiences,"* highlighting the importance of experiential learning or moving beyond traditional book learning in order to explore diverse perspectives and apply learning in real-life contexts.

Barriers to Curiosity: Institutional Structures and Relational Disconnects

While many students shared positive experiences of curiosity-driven learning, they also highlighted significant barriers. As one student shared, *"Crazy enough, although I am an [aspiring]educator, I would say that school life does limit your curiosity. It's like, here's your set schedule, you have to do these classes."* This sentiment was echoed in reflections about professors who struggle to relate to students' generational experiences, with one student describing their professor as *"an incredibly smart guy, but he doesn't understand us… it kind of hinders curiosity because he doesn't understand where we're coming from."* This response highlights how intellectual curiosity is deeply influenced by the social and relational context of the classroom. When students feel

misunderstood or disconnected from their instructor, they may be less likely to engage, take intellectual risks, or seek deeper exploration of course material. It also underscores the critical role of empathy and cultural competence in teaching. A professor who takes the time to understand students' lived experiences, values, and viewpoints can create a more inclusive and stimulating learning environment.

Experiential Learning and Real-World Applications

Experiential learning emerged as a critical factor in fostering intellectual curiosity. One student aptly stated, *"Knowledge is power, but so is experience. You're just not going to know until you're out in the field."* Another student emphasized the need for professors to relate classroom content to students' personal lives: *"You get more out of it when you actually use your identity and personality in assignments, rather than just the concept from the textbook."* Experiential learning encourages students to bring their identities and unique perspectives into assignments by emphasizing real-world applications and personal engagement. When students can draw from their lived experiences, cultural backgrounds and individual perspectives, they are more likely to connect deeply with the material, fostering authenticity and creativity. This integration of identity also cultivates a sense of ownership and agency, empowering students to explore and express their distinct perspectives within academic contexts.

The Role of Family and Personal Relationships

Personal relationships, particularly those with family members, were identified as significant influences on intellectual curiosity. One student reflected on their father's influence: *"My dad has the most experience with higher education in my family; he's a lawyer. I definitely got most of my advice from him."* Similarly, another student described their mother's impact: *"My mom is very educated, she helped me. Although when I was younger, I didn't listen to her."* These sentiments highlight that when family members model curiosity, encourage questioning, or share their own passions for knowledge, they create a supportive environment that can ignite lifelong curiosity by connecting intellectual exploration with emotional support and shared experiences. Professors can leverage this understanding by fostering familial-like connections in the classroom, creating a supportive and inclusive environment that values students' backgrounds and encourages curiosity through meaningful interactions, mentorship and personalized engagement.

Qualitative Results: Written Reflections

Digital Environments and Intellectual Exploration

In addition to the interviews, the written reflections further highlighted how digital platforms, personal interactions, and creative expression shape students' intellectual curiosity and engagement with learning. The role of digital spaces emerged as a prominent factor in student learning and exploration. Students frequently rely on platforms such as Google, TikTok, and YouTube to quickly seek information and apply it to academic and personal pursuits. By engaging with expert opinions, peer discussions, and multimedia resources, they often use social media to supplement their classroom learning and address real-world questions. Social media and digital

platforms "promote the development of new communicative practices, new forms of knowledge production, and consequently, new literacies" that our students are already navigating in their daily lives (Valdivia, 2021). This approach allows students to bridge formal education with practical applications, though it requires critical thinking to assess the credibility and reliability of the information they encounter.

Several students highlighted the importance of verifying the reliability of the information obtained on these platforms. As one student explained, *"I use YouTube on a daily basis to watch documentaries, listen to music, as well as watching casual/non-academic videos. It is important to consider the reliability of a platform and a source behind considering it as a fact."* Another student remarked on the versatility of digital tools in supporting classroom projects, stating, *"I am able to integrate the skills gained [from Instagram and TikTok] into the classroom for creative projects and presentations since I am familiar with the editing and creative aspect of digital media."* This statement reflects how social media platforms serve as informal learning environments where users develop technical skills, such as video editing, storytelling, and visual design. These skills are increasingly relevant in academic and professional settings, particularly in an era where multimedia literacy is essential. Hugues & Morrison (2020) argued that embracing students' use of these spaces into the learning environment, specifically writing classrooms, helps instructors learn more about students' curiosities and interests. In fact, her work insists that from their use of these spaces and the perspectives that they bring into the classroom, we learn how students learn to read, write, interact with texts, and construct meaning.

Implications for Learning Spaces

Production in social media includes not only curation of images but real time practice in digital composition and multimodal writing in mobile spaces and transmediated contexts in which users are translating work using different mediums (Alvermann & Robinson, 2018). As Brandt (2015) stated, writing has become a deep and widespread daily experience as more and more people write for longer periods across multiple digital platforms. One student noted the creative use of these platforms for both entertainment and educational purposes: *"I rely on Google or reliable sources to help me. I normally create TikTok's, Instagram posts/stories, and Snapchat stories for fun/entertainment. Sometimes I'll post on Instagram to educate or post little positive reminders."* This reflection demonstrates a sophisticated form of digital literacy, where the student adapts their writing or design style and content to fit each platform's conventions.

The inclusion of "positive reminders" also suggests a personal connection to their content, which educators can tap into by designing assignments that align with students' existing digital practices. Another student comments on the evolving role of social media platforms as spaces for inquiry, often replacing traditional sources of information for more immediate, practical use: *"Whenever I don't know a fact or small piece of information, I google it. If I want to learn more information about a skill or habit, I look on TikTok. There's actually a lot of practical information on TikTok, and they have a good search engine."* These reflections reveal how students blend personal expression with academic needs, often using these platforms as tools to explore and disseminate knowledge.

These qualitative reflections center student voices in the assessment process (Flournoy & Bauman, 2021) and underscore the complex interplay between institutional support, personal relationships, and digital environments in shaping intellectual curiosity. The richness of these interview responses and reflective texts on the integration of digital media into learning highlights the need for more personalized, flexible, and interactive learning spaces that account for students' diverse needs and backgrounds, honoring their learning cultures and stories. Furthermore, assessing students using their own reflective texts increases the validity of any assessment instrument because it requires students to self-assess and connect their own learning to the assessment itself (Al Harrasi, 2024).

Suarta et al. (2022) found that undergraduate students perceive that faculty perceptions of their cultural context, which includes their relationship with technology, are paramount to understanding their learning process. The study used surveys to collect answers from students in two phases at 15 universities and colleges. The results of the study showed increased engagement from students when they perceived their professors as being educated about the different technological and social factors that impact them. Spencer (2022) identified home culture, self-perceived identities, the school community, and the classroom as learning contexts to identify both internal and external influences that affect their learning as a new language, which the researchers of this proposed study are extending technology as a distinct language and an academic space or learning

Discussion

Results of the Main Findings

The findings from the quantitative and qualitative analyses provide a multifaceted understanding of how undergraduate students experience learning, with intellectual curiosity emerging as a unifying theme. Both data sets highlighted the students' intrinsic desire to explore topics of interest while revealing barriers imposed by rigid institutional structures and outdated teaching practices. Quantitatively, classroom interactions and curiosity with technology scored high in importance, aligning with qualitative insights that underscored the role of passionate professors and the integration of technology in sparking curiosity. As one student noted, "When you have a professor who genuinely cares about the students, I feel like I show up for them more than I will show up for myself." This sentiment echoes the findings of Liu (2018), who emphasized that supportive relationships are vital for sustaining intellectual engagement. The study's results reinforce the idea that faculty-student relationships play a transformative role, where professors' personal investment and cultural competence can significantly elevate students' curiosity and motivation.

The tension between students' natural curiosity and institutional constraints emerged as a recurring theme. Quantitative data showed variability in students' perceptions of how community engagement and clubs influence their academic growth, with these factors scoring lower than classroom interactions and technology use.

Qualitatively, students shared that experiential learning opportunities, such as internships, research projects, and interactive activities, were moments when their curiosity thrived. One participant succinctly expressed this sentiment: "We need fewer assignments and more hands-on things and more applications." This reflects Suarta et

al. (2022), who found that culturally responsive teaching practices that incorporate real-world applications foster greater student engagement. Furthermore, integrating experiential learning into the curriculum aligns with the concept of inquiry-based learning, which is consistently associated with deeper intellectual engagement (Spencer, 2022).

Family and interpersonal relationships were also identified as critical influences on intellectual curiosity, particularly outside the classroom. Quantitative findings indicated variability in the impact of family and peer engagement, with qualitative reflections providing richer context. Many participants described how family members served as role models, encouraging curiosity through shared passions and support. For example, one student reflected on their father's influence, stating, "My dad has the most experience with higher education in my family; I definitely got most of my advice from him." This aligns with Liu (2018), who highlighted the role of familial involvement in sustaining students' academic motivation. Similarly, peers and classroom communities contributed to fostering curiosity, as students reported that a sense of belonging amplified their intellectual engagement.

Digital tools and social media emerged as significant resources for intellectual exploration, often complementing formal education. Quantitatively, curiosity with technology received one of the highest mean scores, reflecting strong agreement among students about its role in learning. Qualitative data supported this finding, with students emphasizing platforms like YouTube, TikTok, and Reddit as tools for both personal and academic inquiry. One student remarked, "Whenever I don't know something, I Google it. If I want to learn a skill or habit, I look on TikTok—it's practical and immediate." These findings align with Valdivia (2021), who argued that digital platforms foster new forms of literacy and knowledge production, bridging the gap between formal education and real-world applications. However, students also noted the importance of critical thinking when navigating these spaces to assess the credibility of information.

The study's findings highlight the interplay between academic environments, interpersonal relationships, and digital resources in shaping intellectual curiosity. Quantitatively, meaningful professor-student interactions and effective technology use emerged as key predictors of student engagement, with regression analysis showing their strong influence on students' perceptions of extracurricular learning ($p < 0.05$). Qualitative data triangulated these findings by revealing the relational and contextual nuances that influence students' curiosity. For instance, while students valued technology, they emphasized that its effectiveness depended on how professors integrated it into learning.

This aligns with George (2023), who argued that digital practices in classrooms can enhance intellectual engagement when instructors adapt their pedagogy to students' existing skills and interests. In terms of contributions to existing literature, this study builds on established findings by bridging insights from pre- and post-pandemic educational contexts. Research indicates that the COVID-19 pandemic accelerated the integration of digital tools into learning, creating hybrid spaces where formal and informal education intersect (Valdivia, 2021; Ferri et al., 2020). The findings emphasize the need for adaptable, culturally responsive pedagogy that aligns with students' lived experiences, reinforcing the importance of empathy, experiential learning, and digital literacy.

By addressing the interconnected roles of home, school, and digital spaces, this study enriches the understanding of intellectual curiosity in contemporary learning environments. Furthermore, it offers actionable recommendations for educators seeking to create engaging, curiosity-driven educational practices.

The findings from the quantitative and qualitative analyses present a multifaceted view of how undergraduate students experience learning, with intellectual curiosity emerging as a central theme. Students expressed a strong desire to explore topics of interest, but many felt limited by rigid school structures and outdated teaching methods. This tension between curiosity and institutional constraints highlights a recurring theme: students seek environments that nurture rather than stifle their natural desire to explore. Students frequently emphasized the role of supportive, passionate professors as catalysts of their engagement with learning. As one student noted, *"When you have a professor who genuinely cares about the students, I feel like I show up for them more than I will show up for myself."* This manifests the power of faculty-student relationships, where professors' personal investment can spark more significant intellectual curiosity.

In contrast, impersonal or outdated teaching approaches can suppress curiosity, particularly when professors are disconnected from the generational experiences of their students. Even more, students highlighted the importance of experiential learning and hands-on activities which allow them to apply classroom concepts to real-life situations. As one student put it, *"We need less assignments and more hands-on things and more applications."* These experiences—whether through internships, research projects, or interactive class activities—were consistently mentioned as moments when students felt most engaged and curious.

Family and interpersonal relationships emerged as essential influences on students' academic experiences. Many students reflected on the role their family members, particularly parents, played in their educational journey, often providing a foundation for intellectual curiosity outside the formal classroom. Peers and classroom communities also played a role, with several students noting that a sense of belonging within academic settings further fueled their intellectual engagement.

Technology and social media were also identified as significant tools for learning, often complementing formal education. Platforms like YouTube, Reddit, and TikTok offered students quick access to information and creative content, sparking curiosity in ways that traditional classroom settings sometimes do not. When integrated meaningfully into the learning environment, these digital spaces can serve as vital learning tools that bridge formal education and personal inquiry. The findings suggest that intellectual curiosity is influenced by a complex web of factors comprising academic environments, interpersonal relationships, and access to digital resources. Educational settings that offer flexibility, experiential learning, and meaningful professor-student relationships are more likely to foster deeper intellectual engagement.

In terms of contribution to existing literature, this study builds on established findings by integrating insights from pre- and post-pandemic educational contexts, highlighting how digital spaces have evolved into significant learning environments. Research indicates that digital platform usage has greatly increased due to the COVID-19 pandemic (Valdivia, 2021). Addressing how these three environments intersect-bridges gaps in current research,

which often treats these influences in isolation. Moreover, the study's findings underscore the need for adaptable, culturally responsive pedagogy that aligns with students' lived experiences, contributing valuable insights into modernizing educational practices. This nuanced approach enriches our understanding of curiosity in contemporary learning spaces and offers actionable recommendations for educators seeking to create more engaging, curiosity-driven environments.

Limitations of the Study

While this study provides valuable insights into the factors influencing undergraduate intellectual curiosity, several limitations should be acknowledged to contextualize the findings. First, the study's sample was drawn from a single mid-sized, private, not-for-profit university, which may limit the generalizability of the results to other types of institutions. Public universities, community colleges, and larger research institutions often have more diverse student populations, which could yield different findings. Additionally, the majority of participants identified as female, reflecting broader trends in higher education but potentially skewing the data in ways that underrepresent male and non-binary perspectives. Future research should aim to include a more diverse set of institutions and a more balanced gender representation to ensure broader applicability of the findings.

A second limitation lies in the self-reported nature of the data, particularly in the survey and reflective journals. Self-reported data can be influenced by participants' biases, including the tendency to provide socially desirable responses rather than fully accurate accounts of their experiences. This is particularly relevant for questions about family influence or professor interactions, where students may underreport negative experiences. Additionally, the use of reflective journals required a level of introspection that not all participants may have been equally equipped or willing to provide, which could lead to inconsistencies in the depth and quality of responses. Combining self-reported data with observational methods or interviews with professors and peers could provide a more holistic view of students' intellectual curiosity.

Finally, the study's reliance on digital tools such as Zoom and Google Classroom for data collection during the qualitative phase may have affected the nature of participants' responses. While these platforms offered accessibility and flexibility, they may have limited the depth of interpersonal connection typically achieved in face-to-face interviews or classroom observations. For instance, some students may have felt less comfortable sharing sensitive or deeply personal insights in a virtual environment. Additionally, technical issues or varying levels of digital literacy among participants could have influenced their ability to engage fully with the reflective journal prompts or interviews. Future studies could explore the use of hybrid data collection methods to address these challenges and provide richer, more nuanced insights into the factors shaping intellectual curiosity.

Practical Implications

Practical recommendations could include actionable strategies that promote intellectual curiosity in modern classroom settings to improve the paper's applicability for educators. For example, educators could develop a "digital toolkit" that harnesses students' familiarity with online platforms to engage them actively in learning. This

toolkit might include curated resources such as multimedia content, collaborative digital tools (e.g., Google Workspace, Miro), and interactive modules that encourage independent exploration beyond the classroom. Additionally, integrating experiential learning strategies—such as project-based learning, fieldwork, and case studies—into traditionally rigid curricula could provide students hands-on opportunities to connect academic content with real-world applications. These methods align with students' interests and facilitate deeper cognitive engagement, making learning more relevant and stimulating curiosity in a sustainable, impactful way.

To further enhance these strategies, more teacher training workshops could help educators effectively integrate digital technologies and AI into culturally responsive teaching practices. These workshops could provide practical guidance on leveraging digital tools to create inclusive learning environments that honor students' diverse cultural and linguistic backgrounds. For example, training could focus on how to design AI-supported adaptive learning modules tailored to individual student needs, or how to use digital storytelling platforms to amplify underrepresented voices and perspectives.

Teacher training workshops could also focus on integrating social media into classroom practices as a tool to foster intellectual curiosity and active learning. These workshops would equip educators with strategies to incorporate platforms like TikTok, Instagram, X, and YouTube into assignments, discussions, and collaborative projects. For instance, educators could learn to design assignments where students create informative videos, participate in hashtag-driven discussions, or curate multimedia presentations using Instagram stories or TikTok's creative tools.

Workshops could also guide educators in teaching students' critical digital literacy skills, such as evaluating the credibility of social media content, identifying biases, and engaging in respectful online discourse. By emphasizing the ethical and effective use of social media, teachers can encourage students to use these platforms as extensions of their intellectual curiosity while ensuring that engagement remains meaningful and safe. Furthermore, these workshops could demonstrate how social media can amplify diverse perspectives and encourage inclusivity.

Educators might explore ways to curate content that reflects diverse cultural, linguistic, and disciplinary viewpoints, or how to encourage students to draw from their unique social media interactions and identities in their academic work. Training sessions could also introduce collaborative tools like private Facebook groups, class-specific X hashtags, or shared TikTok challenges to promote peer learning and co-creation of knowledge. By equipping teachers with the tools and confidence to use social media effectively, these workshops can ensure that modern classrooms reflect the realities of digital engagement, fostering intellectual curiosity in ways that are innovative, inclusive, and relevant to students' lives.

In addition, fostering peer-led learning and co-creation of knowledge could play a pivotal role in promoting intellectual curiosity. Collaborative projects where students take on leadership roles, contribute unique insights, and co-develop learning materials encourage a sense of agency and shared responsibility. For instance, students might collaboratively create a digital resource or conduct a research project that addresses a real-world issue

relevant to their community. These practices empower students to draw on their personal experiences and cultural knowledge, further enriching the learning environment.

Conclusion

This study highlights the intricate relationship between home, school, and digital environments in shaping undergraduate intellectual curiosity. Both the quantitative and qualitative findings emphasize the importance of creating learning environments that are flexible, interactive, and responsive to the needs of students. By integrating digital tools already familiar to students and fostering more robust, more personal connections between professors and students, educators can cultivate intellectual curiosity in ways that align with the modern student experience. As one student reflected, *"It's not about the class; it's about the professor. If I have a good professor, I'm gonna want to learn."* This sentiment speaks to the significance of building strong personal connections within the academic environment, reinforcing the need for educators to invest in both the content they teach and the relationships they build with their students. Moving forward, enhancing intellectual curiosity requires a holistic approach, that considers the academic, personal, and digital dimensions of students' lives.

The findings also emphasize that fostering a sense of belonging is crucial, particularly in a post-COVID learning landscape where remote and hybrid models make personal connection even more vital. Incorporating reflective practices, such as metacognitive exercises and digital tools, into the curriculum can help students feel more engaged, fostering curiosity and ownership over their learning process. Furthermore, granting students autonomy and integrating hands-on experiences through flipped classrooms and digital resources can significantly boost confidence and engagement. Educators can foster environments where intellectual curiosity thrives by aligning classroom structures with students' needs for belonging, autonomy, and digital integration. This will excite and engage students, and empower them to explore more deeply, both in academic settings and beyond.

Recommendations for Future Research

Future research should aim to explore intellectual curiosity across broader and more diverse student populations, including individuals from varying cultural, socioeconomic, and educational backgrounds. Expanding the study population to include students from public universities, community colleges, and technical institutions would provide a more comprehensive understanding of how different educational settings shape intellectual curiosity. Additionally, research focusing on international student populations could uncover how cultural differences influence curiosity and learning preferences. Such comparative studies would enhance the generalizability of findings and help identify context-specific strategies for fostering intellectual curiosity in diverse learning environments.

Conducting longitudinal studies would also provide valuable insights into the evolution of intellectual curiosity over time. By tracking students from the onset of their college experience through graduation, researchers could examine how sustained exposure to digital platforms and educational practices shapes curiosity, critical thinking, and engagement. This approach would allow for an assessment of the long-term effects of experiential learning,

professor-student relationships, and technology integration on intellectual growth. Longitudinal data could also reveal how curiosity develops in response to key transitional moments, such as the transition from general education courses to major-specific coursework or from undergraduate to graduate studies.

Finally, future studies could delve deeper into the intersection of digital tools and intellectual curiosity, particularly as technology continues to advance at a rapid pace. Investigating the role of emerging technologies like artificial intelligence, augmented reality, and personalized learning platforms could shed light on how these innovations impact students' curiosity and engagement. Additionally, exploring the effectiveness of digital literacy interventions in helping students critically evaluate the information they encounter online would address a growing need in modern education. By integrating experimental designs with observational methods, researchers can uncover best practices for leveraging technology to foster intellectual curiosity while mitigating potential downsides, such as over-reliance on digital resources or exposure to misinformation.

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References

Alam, A. (2022). Mapping a sustainable future through conceptualization of transformative learning framework, education for sustainable development, critical reflection, and responsible citizenship: An exploration of pedagogies for twenty-first-century learning. *ECS Transactions*, *107*(1), 9827.

Al Harrasi, K. T. S. (2024). Enhancing learner self-monitoring in self-assessment through the use of pedagogical resources. *Cogent Social Sciences*, *10*(1). http://doi.org/10.1080/23311886.2024.2334486.

Alvermann, D. E., & Robinson, B. (2018). Youths' global engagement in digital writing ecologies. In K. A. Mills, A. Stornaiuolo, A. Smith, & J. Z. Pandya (Eds.), Handbook of writing, literacies, and education in digital cultures (pp. 162–172). Routledge. https://doi.org/10.4324/9781315465258.

Brandt, D. (2015). *The rise of writing.* Cambridge University Press.

Creswell, J. W., & Plano Clark, V. L. (2017). *Designing and conducting mixed methods research* (3rd ed.). Sage Publications, Inc.

Ferri, F., Grifoni, P., & Guzzo, T. (2020). Online learning and emergency remote teaching: Opportunities and challenges in emergency situations. *Societies*, *10*(4), 86.

Gallegos, E. P. (2013). Mapping student literacies: Reimagining college writing instruction within the literacy landscape. *Composition Forum* (27). Association of Teachers of Advanced Composition.

Gamage, K. A., Dehideniya, D. M. S. C. P. K., & Ekanayake, S. Y. (2021). The role of personal values in learning approaches and student achievements. *Behavioral sciences*, *11*(7), 102.

George, A. S. (2023). Preparing students for an AI-driven world: Rethinking curriculum and pedagogy in the age of artificial intelligence. *Partners Universal Innovative Research Publication*, *1*(2), 112-136.

Goldenberg, S. (2022). *Radical curiosity: Questioning commonly held beliefs to imagine flourishing futures*. Crown.

Hughes, J. M., & Morrison, L. J. (2020, July). Innovative learning spaces in the making. *Frontiers in Education (5)* p. 89. https://doi.org/10.3389/feduc.2020.00089.

Johnston, D. H., Foy, K., Mulligan, A., & Shanks, R. (2021). Teaching in a third space during national COVID-19 lockdowns: in loco magister? *Irish Educational Studies*, *40*(2), 359–366. https://doi.org/10.1080/03323315.2021.1916563

Karnilowicz Mizuno, C., & Xu, L. (2022). Conceptualizing culture and creativity: Perspectives on creativity by Japanese secondary school students. *Journal of Creative Behavior, 56*(3), 449-464. https://doi.org/10.1002/jocb.540

Kenett, Y. N., Humphries, S., & Chatterjee, A. (2023). A thirst for knowledge: Grounding curiosity, creativity, and aesthetics in memory and reward neural systems. *Creativity Research Journal*, *35*(3), 412-426.

Litman, J. A., & Spielberger, C. D. (2003). Measuring epistemic curiosity and its diversive and specific components. *Journal of Personality Assessment*, *80*(1), 75-86. https://doi10.1207/S15327752JPA8001_16.

Liu, H. (2018). Social and genetic pathways in multigenerational transmission of educational attainment. *American Sociological Review, 83*(2), 278–304. https://www.jstor.org/stable/48589216

Marche, S. (2022). *The college essay is dead. Nobody is prepared for how AI will transform academia.* The Atlantic. https://www.theatlantic.com/technology/archive/2022/12/chatgpt-ai-writing-college-student-essays/672371/

Moll, L. C., Amanti, C., Neff, D., & Gonzalez, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory Into Practice,* (31)2, 132-41.

Smith, J. A., Flowers, P., & Larkin, M. (2021). *Interpretative phenomenological analysis: Theory, method, and research*. Sage Publications, Inc.

Spencer, J. (2022). The other third culture kids: EAL learners' views on self-identity, home culture, and community in international schools. *TESOL Journal, 13*(3). https://doi.org/10.1002/tesj.657

Suarta, I. M., Noortyani, R., Yarsama, K., & Adhiti, I. A. I. (2022). The role of teachers' indigenous knowledge and cultural competencies in enhancing students' engagement and learning outcomes. *Journal of Ethnic and Cultural Studies, 9*(1), 244-264. https://doi.org/10.29333/ejecs/1025

Sutarman, Utomo, T. P., Bawitri, Cakranegara, P. A., Khaerudin, & Pahlawati, E. (2021). Character Education of students based on culture and local wisdom. *Review of International Geographical Education Online*, *11*(10), 1196–1203.

Tashakkori, A., Johnson, R. B., & Teddlie, C. (2020). *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioral sciences (2nd ed.).* Sage Publications, Inc.

Valdivia, A. (2021). Digital production on Instagram: Vernacular literacies and challenges to schools. *Theory Into Practice*, *60*(2), 172–182. https://doi-org.ezproxylocal.library.nova.edu/10.1080/00405841.2020.1857139

Welding, L. (2022). *U.S. College Enrollment Decline.* Best Colleges. https://www.bestcolleges.com/research/college-enrollment-decline/

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