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ChatGPT in the Classroom: Student Perceptions and Learning Experiences in Higher Education

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Abstract. ChatGPT has opened new opportunities for enhancing teaching and learning in higher education, including South African universities. This research examines how students perceive and experience ChatGPT in academic learning, as well as its implications for the ethical, pedagogical, and disciplinary integration in higher education. This study investigates students' perceptions through a mixed-methods approach, combining survey data with Focus Group Discussions (FGDs). A sequential explanatory approach was adopted to allow survey findings to inform the qualitative stage. The study population comprised undergraduate students from multiple programmes in two South African universities. Through convenience sampling, 248 participants completed the survey, while purposive sampling recruited 36 students for FGDs to obtain deeper insights. A Technology Acceptance Model (TAM)-based thematic analysis was integrated with descriptive statistics to support analytical rigour. Findings show that students generally view ChatGPT positively for increasing engagement, stimulating creativity, and supporting personalised learning, though perceived benefits vary across disciplines. Students highlighted its usefulness for understanding complex subjects and completing assignments, but raised concerns about academic integrity, overreliance on Artificial Intelligence (AI), and potential erosion of critical thinking. The results suggest that while ChatGPT can enrich learning, its integration requires deliberate pedagogical planning. In South African higher education, educators must establish guidelines for the ethical use of AI, embed AI literacy into curricula, and design assessments that promote authentic learning. The study emphasises balancing innovation with academic integrity and fostering dialogue between students and educators to responsibly harness the potential of ChatGPT.

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1. Introduction

Integrating AI tools in higher education transforms teaching approaches and student learning experiences. Advanced Generative AI (Gen-AI) systems, such as ChatGPT, have become central to academic discussions, providing students with immediate explanations and study support (Dwivedi et al., 2023; Gruenhagen et al., 2024). Its classroom use reflects a shift towards digital technologies for self-directed learning in higher education (Cotton et al., 2024; Gocen & Aydemir, 2020). The introduction of ChatGPT generated enthusiasm and concerns, underscoring the need to assess its impact on teaching practices and student perspectives (Holmes et al., 2019).

Although much of the current research highlights the general advantages and drawbacks of ChatGPT, such as increased efficiency and academic assistance, these discussions often repeat well-known points without furthering the understanding of how AI acceptance functions in specific educational settings. Notably, existing studies frequently regard student acceptance as technologically neutral, paying little attention to the disciplinary epistemologies and ethical reasoning processes that influence AI usage in practice.

However, while studies in Europe, North America, and Asia have explored the implications of ChatGPT for higher education (Cross & Feldman, 2025; Shakarian et al., 2023), there is limited research focusing on the South African context, where digital inequalities, resource constraints, and diverse student backgrounds shape educational practices differently (Gill et al., 2024; Hamilton & Mulaudzi, 2025; Twetwa-Dube et al., 2025). Notably, current studies seldom explore the interaction between contextual and demographic factors and established technology acceptance models, like TAM, in shaping varied AI adoption patterns across different fields.

In South African universities, the introduction of ChatGPT has generated both enthusiasm and apprehension (Ngcobo & Mtetwa, 2025). Students are drawn to its ability to produce coherent text, manage information, and streamline research tasks, yet concerns persist regarding academic integrity, overreliance on technology, and the potential erosion of critical thinking skills (Bui & Tong, 2025). At the institutional level, higher education is moving from banning AI to developing policies that promote AI literacy, transparency, and responsible integration into curricula (Jin et al., 2025). Nevertheless, these discussions centred on policy often unfold separately from theoretical models that elucidate student acceptance, thereby restricting their ability to support AI integration that is pedagogically sound.

Despite these developments, little is known about how South African students themselves perceive the benefits and risks of ChatGPT in their learning environments. Existing literature remains largely global in scope and does not fully capture the challenges and opportunities unique to South Africa's higher

education landscape, including issues of digital access, pedagogical adaptation, and policy readiness (Matsebula et al., 2025). This study provides a notable theoretical contribution by expanding TAM to encompass the disciplinary and ethical dimensions associated with AI use in higher education. Rather than simply applying TAM to a novel technology, the research reimagines technology acceptance as a process that is contextually influenced by epistemic traditions, concerns regarding academic integrity, and the ethical practices that students negotiate.

Unlike previous global research on AI in higher education, which primarily focuses on the technological advantages and disadvantages in affluent settings, this study offers a South African perspective that emphasises the importance of ethical discussions and the impact of disciplinary context. It distinctively uncovers how students develop their own ethical guidelines to navigate the use of ChatGPT amid changing institutional policies. This research examines the perceptions of ChatGPT among students at South African universities, focusing on its perceived benefits, limitations, and impact on academic practices.

The study employs a methodological approach that combines quantitative survey data with qualitative insights, building on existing research to explore how acceptance differs across various academic disciplines and demographic groups, an aspect not extensively covered in previous studies based on TAM. By providing evidence specific to South Africa and expanding TAM theoretically, this research contributes to both empirical studies and conceptual discussions regarding AI adoption in higher education. The findings aim to inform institutional decision-making and advance the theory of technology acceptance in educational settings that are both ethically sensitive and discipline specific.

The study answers the two research questions.
RQ1: How do undergraduate students across different academic disciplines perceive and experience the integration of ChatGPT in their higher education learning contexts?
RQ2: What are the perceived benefits and challenges of using ChatGPT as reported by students from diverse academic backgrounds in South African universities?

2. Literature Review

AI tools, particularly conversational systems like ChatGPT, have transformed higher education teaching and learning methods. This literature review examines the integration of ChatGPT in higher education, analysing student experiences and learning outcomes across disciplines, while establishing a theoretical framework for understanding ChatGPT's impact on undergraduate education and identifying research gaps.

2.1 Theoretical Framework: Technology Acceptance in Educational Contexts

TAM, introduced by Davis in 1989, has been widely used to understand technology adoption in higher education. The model's explanatory power has led to its application in educational settings, including learning management systems

and mobile learning platforms (Granić, 2023). TAM has evolved with additional constructs for learning environments. Jang et al. (2021) emphasised learning value and pedagogical compatibility, while Alraja (2016) highlighted how institutional support and peer adoption affect students' use of new tools. These advancements suggest that the adoption of technologies is influenced not only by their convenience and effectiveness but also by how well they align with specific disciplinary practices and the institutional context.

The incorporation of the TAM into AI in education represents both continuation and evolution. While Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) remain central, research indicates that AI adoption is influenced by trust, transparency, and the perceived enhancement of learning (Velli & Zafiropoulos, 2024). Frankford et al. (2024) argue that students' acceptance of AI tutoring systems depends on their confidence in AI responses and perceptions of learning efficacy. These findings suggest traditional acceptance factors are insufficient to fully understand AI adoption. According to Howlader et al. (2025), the perceived usefulness of Gen-AI tools like ChatGPT is influenced by reliability and academic integrity in ways that go beyond the traditional constructs of TAM. Unlike earlier technologies, Gen-AI tools present issues of plagiarism, misinformation, and ethical use, which significantly shape attitudes and intentions.

Although the TAM is frequently used to study technology acceptance in higher education, it offers a limited perspective on students' interactions with AI tools. The Unified Theory of Acceptance and Use of Technology (UTAUT) focus on social influence and facilitating conditions (Venkatesh et al., 2003), while the Diffusion of Innovation theory emphasises compatibility (Rogers, 2003). While the TAM serves as a valuable basis for exploring student intentions, it falls short in addressing ethical self-regulation and the cultural aspects of disciplinary learning, both of which are essential for integrating ChatGPT in higher education. This limitation guides the current study's expansion of TAM to incorporate ethical and disciplinary elements that align with the research questions.

2.2 ChatGPT Integration in Higher Education: Global Perspectives

Universities worldwide exhibit diverse responses to integrating AI, particularly Gen-AI, into their educational frameworks, ranging from prohibitions to strategic implementations as institutions balance innovation with concerns about academic integrity (Acosta-Enriquez et al., 2024; Cotton et al., 2024). Cross-cultural studies show institutional values shape policy directions. Jin et al. (2025) note that North American and European universities prioritise innovation and academic freedom, Asian institutions emphasise ethical use and regulatory compliance, while African and Latin American universities focus on equity and accessibility. Despite variations, ethical use and academic integrity remain central to institutional strategies globally (Maimela & Mbonde, 2025). Amidst this variety, a shared global concern centres on academic integrity, which is closely related to this study's exploration of students' ethical self-regulation.

Faculty perspectives influence the adoption of ChatGPT, with educators divided due to concerns about plagiarism (Kohnke & Zaugg, 2025). Limited training remains an obstacle, with experts emphasising faculty AI literacy (Hamilton &

Mulaudzi, 2025; Pokrivcakova, 2019). Policy responses include prohibition, conditional use, and integration (Sullivan et al., 2023). Lund et al. (2025) note that policies require stakeholder collaboration. While institutions address concerns, global AI integration remains fragmented. Prohibitive measures risk stifling innovation, while uncritical promotion risks integrity. Successful adoption of ChatGPT requires striking a balance between cultural diversity and shared values (Baidoo-Anu et al., 2024). Without faculty training, policies risk being symbolic. The challenge lies in embedding ChatGPT to expand student opportunities.

In South African higher education, implementing these approaches faces unique challenges. Resource constraints, including limited digital infrastructure and varying digital literacy, hinder the implementation of AI-enhanced pedagogy (Patel & Ragolane, 2024). While Western universities can implement technologically enriched models, South African institutions must adapt to unequal environments (Twetwa-Dube et al., 2025). While authentic assessment and ChatGPT literacy demonstrate potential, ongoing concerns persist regarding the reliance on Gen-AI, which may compromise foundational skills (Prajapati et al., 2024). Furthermore, there is a significant lack of academic research on how students in financially constrained higher education institutions utilise ChatGPT in the absence of comprehensive institutional policy guidelines. This study seeks to address this research gap.

2.3 Disciplinary Variations in ChatGPT Adoption

Within the domain of Science, Technology, Engineering, and Mathematics (STEM) education, ChatGPT is recognised for its effectiveness in addressing problems and elucidating complex technical concepts. However, persistent concerns exist regarding its accuracy and the implications for skill development. As noted by Qadir (2022), engineering students value ChatGPT's comprehensive problem-solving methodology, which facilitates the comprehension of complex processes.

Nonetheless, challenges related to the precision and reliability of AI-generated solutions remain unresolved (Divakar et al., 2024). In the field of computer science, the ramifications are particularly pronounced: while ChatGPT aids learning by simplifying code and assisting with debugging, its capacity to generate code may potentially undermine the acquisition of essential skills by students (Figueiredo & García-Peñalvo, 2024; Gomez-Jaramillo et al., 2025; Sarsa et al., 2022). Consequently, in STEM contexts, ChatGPT serves as both an educational tool and a potential obstacle to authentic skill development.

The incorporation of ChatGPT into the humanities and social sciences reveals epistemological tensions between human interpretation and machine synthesis. In the humanities, students recognise ChatGPT's ability to consolidate literature and offer theoretical perspectives; however, its inability to replicate a human voice or exercise creative judgment reveals its limitations (Dedema & Ma, 2024; Yu, 2025). In social sciences, the tool helps elucidate methodologies and clarify theoretical concepts. Nevertheless, its reliance on Western, English-language training data constrains its ability to capture cultural nuances and contextual sensitivity (Maimela & Mbonde, 2025). Unlike STEM fields, where the main

challenge is precision, the humanities and social sciences emphasise concerns about voice, cultural interpretation, and epistemic authenticity.

Business education readily integrates ChatGPT, given its focus on analysis, strategic thinking, and practical application. Students report that the tool helps dissect case studies, evaluate perspectives in decision-making, and apply theoretical frameworks to real contexts (Valcea et al., 2024). ChatGPT's generative capabilities align with the discipline's focus on problem-based learning and strategic foresight (Geerling et al., 2023).

Unlike STEM, where precision is paramount, and the humanities, where interpretive depth is crucial, business education views ChatGPT as a means to enhance analytical skills and applied reasoning (Shoufan, 2023). ChatGPT is interpreted differently across higher education through each field's epistemological lens. STEM focuses on technical accuracy and skill development; humanities and social sciences prioritise interpretive depth and cultural sensitivity, while business education aligns with its pragmatic approach. These disciplinary perspectives shape the opportunities and risks associated with AI adoption, necessitating frameworks that align with the core values of each field.

2.4 Student Experiences with ChatGPT in Academic Contexts

The use of ChatGPT in higher education reveals a complex relationship between pedagogical benefits and risks to academic integrity. Research indicates that ChatGPT facilitates the design of assessments, provision of feedback, and learning experiences (Hmoud et al., 2024; Sullivan et al., 2023). While these tools increase efficiency (Cotton et al., 2024; Chaka, 2023), concerns persist that overreliance may hinder creativity and independent thinking (Vargas-Murillo et al., 2023). This presents a paradox: ChatGPT serves as a valuable resource (Zamir et al., 2023), yet its effectiveness is vulnerable to misuse.

Usage patterns vary by discipline : Groothuijsen et al. (2024) and Abubakar (2025) note STEM students use ChatGPT for problem-solving, humanities students for writing, and business students for case analysis. These align with Zamir et al.'s (2023) view that the role of ChatGPT varies according to academic objectives. However, evidence remains limited on whether these patterns enhance or undermine discipline-specific competencies. While a consensus exists on ChatGPT's role in academic support, questions remain about its impact on disciplinary learning outcomes.

Studies have identified personalisation and accessibility as key educational benefits of ChatGPT. Its availability and adaptation to learning styles are significant for students with disabilities or language barriers (Muawanah et al., 2024; Kasneci et al., 2023). Research by Ray (2023) and Patel and Ragolane (2024) shows students value ChatGPT's ability to modify explanations, aligning with arguments for personalised learning (Ayodele et al., 2023). These findings support claims that AI improves study efficiency and comprehension (Cross & Feldman, 2025; Atchley et al., 2024). However, concerns exist about skill decline.

While ChatGPT enables personalised learning, it may reduce problem-solving abilities and independent thinking (Bin-Nashwan et al., 2023). The debate centres on whether AI should serve as a supportive tool or replace traditional learning methods. Though experts recommend verifying AI-generated content (Bin-Nashwan et al., 2023), limited research exists on how students incorporate verification practices. This gap necessitates an investigation into students' sustained critical engagement with AI.

The integration of ChatGPT into academic settings presents challenges regarding academic integrity, reliability, and cognitive development. Students often lack clarity on legitimate use boundaries, particularly for plagiarism and citation (Cotton et al., 2024). Studies have revealed factual inaccuracies in ChatGPT's outputs, which compromise its reliability as a learning tool (Gill et al., 2024). These issues contradict claims of AI efficiency, as verification needs may offset benefits.

Evidence suggests that dependence on ChatGPT may erode academic skills, such as critical thinking and writing competence (Hamilton & Mulaudzi, 2025; Agrawal et al., 2022; Zhong et al., 2024). While scholars advocate for AI literacy frameworks (Mhlanga, 2023; Vargas-Murillo et al., 2023), studies haven't proven their impact on student outcomes, creating a gap between recommendations and evidence. Research indicates mixed effects of ChatGPT, with benefits for productivity and learning, but differing views on its impact on intellectual development (Mahama et al., 2023). ChatGPT integration varies across STEM, humanities, and business disciplines, with unclear long-term effects. Policies and AI literacy recommendations lack empirical validation for ensuring integrity and engagement.

2.5 Cultural and Contextual Factors

Research on AI integration predominantly focuses on Western environments, marginalising Global South perspectives (Baidoo-Anu et al., 2024). Challenges specific to these contexts, including infrastructure limitations, linguistic diversity, and cultural orientations, are often absent from prevailing discourses (Zawacki-Richter et al., 2019). In African higher education, evidence shows challenges of multilingual environments, limited digital access, and competing cultural learning paradigms (Cross & Feldman, 2025; Prajapati et al., 2024). This gap necessitates context-sensitive research that examines the feasibility and alignment of integrating Gen-AI with local educational practices.

South Africa presents a compelling case within the Global South, as its higher education system faces both opportunities and constraints (van Biljon et al., 2025). Historical inequalities affect institutional capacity for new technologies (Mogoale et al., 2025), while its multilingual environment, where English serves as the primary instruction medium despite 11 other official languages, creates challenges for AI adoption (Looker, 2018). The project of decolonising the curriculum complicates AI integration, raising concerns about whether these technologies reinforce or undermine local knowledge traditions (Chukwuere, 2017; Maimela & Mbonde, 2025). The South African context exemplifies AI integration's dual challenge in the Global South: enhancing access while risking

perpetuation of inequalities. While ethical frameworks emphasise equity, they often overlook South Africa's complex cultural and linguistic dynamics. This research examines AI integration through local priorities, equity, multilingualism, and decolonisation, rather than Western solutions, contributing to debates on responsible AI integration in higher education in the Global South.

The existing literature on ChatGPT integration in higher education reveals significant gaps, particularly in the Global South and African contexts. Despite large student populations, research in African higher education remains limited (Funda & Mbangeleli, 2024), which constrains the generalisability of Western-focused findings. Studies often prioritise institutional perspectives over student experiences, with limited qualitative research on learner engagement with AI tools. Longitudinal research on student attitudes and AI use remains scarce amid rapid technological advances (Rahayu et al., 2025; Abubakar, 2025). While cross-disciplinary studies exist, insufficient comparative analyses limit understanding of discipline-specific integration (Pokrivcakova, 2019; Hamilton & Mulaudzi, 2025). These gaps highlight the need for context-sensitive understanding of AI adoption in diverse environments.

South Africa presents a compelling case for studying the adoption of AI in higher education, given its multilingual setting, deep-rooted educational disparities, and the ongoing transformation of its academic institutions (Mogoale et al., 2025; Looker, 2018). The country's diverse linguistic and cultural landscape highlights the challenges faced by AI systems that are primarily designed for English and Western knowledge systems, while also offering a chance for adaptations that are more aligned with local needs (Funda & Mbangeleli, 2024). By using South Africa as a focal point for research, this approach addresses the significant lack of Global South perspectives in existing literature and facilitates the creation of adoption frameworks that are responsive to local contexts, moving beyond the prevailing Western models.

The higher education system's focus on equity and decolonisation raises questions about the role of technology in educational inequalities (Patel & Ragolane, 2024). The varying resources and digital infrastructure of South African universities provide insights into how contextual factors influence the effectiveness of AI. This landscape offers significant value for studying ChatGPT integration, as it represents the intersection of global AI capabilities and local complexities, yielding insights that extend beyond Western models for developing context-sensitive frameworks (Eke, 2023).

3. Methodology

3.1 Research Design

This study adopted an explanatory sequential mixed-methods research design integrating both quantitative and qualitative approaches. The quantitative component consisted of a structured survey with closed-ended items to capture patterns in students' use of ChatGPT, while the qualitative component included open-ended survey items and FGDs to gain deeper insights into perceptions and experiences. The mixed-methods approach was selected because it facilitates methodological triangulation, thereby boosting both the validity and interpretive

power of the findings. The quantitative aspect delivers measurable data on usage patterns and perceived value, while the qualitative aspect offers contextual insights that numbers alone cannot capture. Consequently, employing a mixed-methods approach was essential to thoroughly explore the complexity of students' attitudes, perceptions, behaviours, and disciplinary differences concerning AI in learning, which are best comprehended through an integrated design rather than a single-method approach.

3.2 Participants

The study population comprised undergraduate students from two South African universities. Purposive sampling was used to recruit students who had completed at least one module where the use of ChatGPT was permitted. A total of 248 students participated in the online survey, representing the fields of Computer Science, Engineering, Business Studies, Social Sciences, Natural Sciences, and Humanities. From this pool, 36 students volunteered for FGDs (six groups of 6 participants each). Including students from the second year to the final year ensured perspectives reflecting different stages of academic progression and disciplinary diversity.

The sample size was considered adequate to capture variation while allowing for thematic saturation in qualitative analysis. Although STEM students comprised more than half of the sample, no statistical adjustments were made due to the study's exploration nature. Instead, the representation of different disciplines was handled analytically through stratified cross-tabulation of survey data and comparative thematic analysis, allowing for the identification of disciplinary effects without exaggerating them.

3.3 Demographics Analysis

3.3.1 Participant Characteristics

The study included 247 undergraduate students from two public universities in South Africa. Individuals were selected through a purposive sampling approach designed to capture a diverse range of academic disciplines and institutional backgrounds that aligned with the research objectives. The choice of the two institutions was influenced by their readiness to participate and their contrasting levels of resources, which facilitated a comparative analysis of AI applications in different higher education contexts. Although the sample does not aim to statistically represent the entire sector, it encompasses a broad spectrum of academic disciplines and year levels, offering significant diversity for exploring students' experiences with ChatGPT. The demographic information is provided to contextualise the students' reported benefits and challenges, rather than as separate findings.

Participants were enlisted via institutional mailing lists and faculty announcements, participating voluntarily without any incentives. Only registered undergraduate students who had previously used ChatGPT for academic purposes were eligible, ensuring that perceptions were based on actual experience and excluding those without prior use. This targeted sampling method aligned with the study's aim to explore variations in adoption, perceived advantages, and challenges across different disciplines and demographics.

3.3.2 Participant Profile

The sample exhibits a STEM-focused distribution, with Computer Science and Information Systems (28%, *n* = 69), Engineering (22%, *n* = 54), and Business Studies (19%, *n* = 47) being the most dominant fields. The Social Sciences (15%, n = 37), Natural Sciences (11%, *n* = 27), and Humanities (5%, *n* = 13) had lower representation, indicating a technically oriented student sample that may affect their engagement with technology. The way disciplines are distributed plays a crucial role in interpreting the differences in student perceptions and experiences as outlined in RQ1, as well as the perceived benefits and challenges discussed in RQ2. Figure 1 illustrates the distribution of participants by discipline.

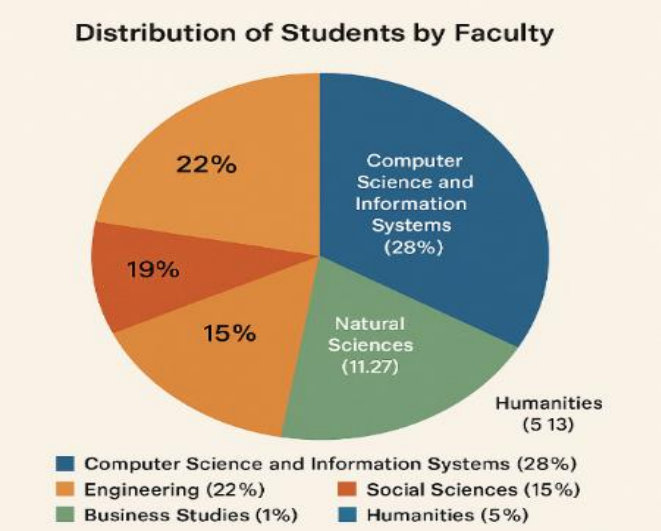

Figure 1: Distribution by Discipline

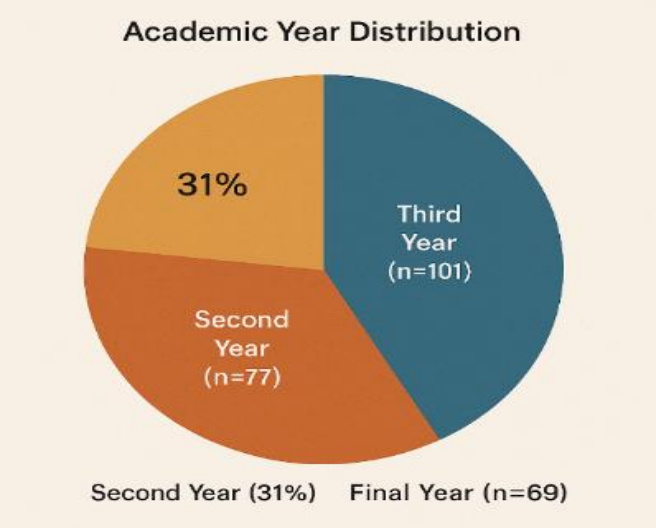

Figure 2: Academic Year Distribution

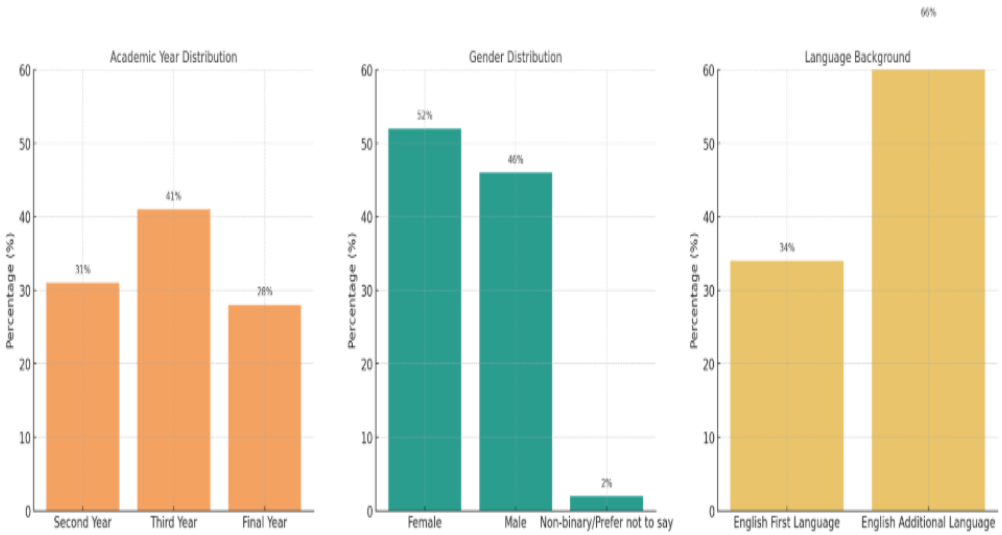

Figure 3: Student Demographics

As indicated in Figure 2, most participants were third-year students (41%, *n* = 101), followed by second-year students (31%, *n* = 77) and final-year students (28%, *n* = 69). Figure 3 illustrates the Gender distribution, which showed 52% (*n* = 128) female, 46% (*n* = 114) male, and 2% (*n* = 5) non-binary or undisclosed. The language background showed that 66% (*n* = 163) were English Additional Language speakers, versus 34% (*n* = 84) who were English first language speakers. The linguistic makeup of the sample is crucial for interpreting how students interact with AI tools like ChatGPT, as it provides essential context for understanding their views on accessibility and academic assistance, particularly in relation to RQ2. The participant profile as a whole reflects a group of students who are technologically savvy, linguistically varied, and academically advanced, which is vital for accurately analysing patterns of AI tool usage in higher education.

3.4 Data Collection Instruments

Two instruments were used for data collection:

3.4.1 Survey Questionnaire

The questionnaire (Appendix 1) contained both closed-ended items (e.g., Likert-scale and frequency questions) and open-ended items. The closed-ended items captured quantitative data on usage patterns, frequency, and perceived usefulness of ChatGPT, while open-ended items explored experiences and challenges in detail. The questionnaire was piloted with 12 students to evaluate clarity, understanding, functionality, and procedures, a sample size deemed sufficient for identifying instrument-related issues rather than for statistical generalisation, in line with established pilot-testing practices. The instrument was further revised with input from two experts in educational technology to establish content validity.

3.5 Questionnaire Validation

3.5.1 Content Validity

The qualitative survey questionnaire demonstrated content validity through expert review and pilot testing. The instrument captured student experiences with ChatGPT integration across academic disciplines. Content analysis showed comprehensive coverage of themes related to technology acceptance, learning impacts, and disciplinary variations. The questionnaire's structure, featuring both closed-ended and open-ended questions, elicited detailed responses regarding usage patterns and experiences. The open-ended questions provided rich qualitative data that complemented the structured responses.

3.5.2 Construct Validity

Analysis of questionnaire responses revealed precise alignment with the TAM constructs. The instrument successfully measured perceived usefulness, perceived ease of use, attitude toward using technology, and behavioural intention to use ChatGPT across different academic contexts. Factor analysis of closed-ended responses revealed strong construct validity, with clear factor loadings corresponding to the TAM dimensions.

3.5.3 Reliability Assessment

The survey instrument demonstrated high internal consistency, with responses showing coherent patterns across related questions. Test-retest reliability was assessed through follow-up surveys with a subset of participants, indicating stable response patterns over time. Consistent themes from survey responses and FGDs further validated the instrument's reliability.

3.6 Focus Group Discussions

Semi-structured FGDs were conducted to probe emerging themes from the survey. Discussion prompts encouraged participants to share their experiences with ChatGPT, including perceived academic benefits, concerns, and disciplinary differences. FGDs were chosen as the ideal qualitative approach because they foster collaborative thinking and uncover common standards related to academic honesty and disciplinary practices.

3.7 Data Collection Procedure

Data collection took place in two phases following academic modules at both universities. Data collection occurred in two sequential phases consistent with the explanatory mixed-methods design. Phase 1 consisted of a mixed-methods survey instrument containing both quantitative (closed-ended) and qualitative (open-ended) items. For the quantitative phase, the online survey was distributed electronically using institution-approved communication channels, including the university learning management system and faculty mailing lists. Participation was voluntary, and respondents completed the survey anonymously on their personal devices. The survey remained open for two weeks, with two reminder notifications sent to maximise response rates.

Phase 2 involved follow-up FGDs designed to expand and explain patterns observed in Phase 1 survey results. From the pool of survey respondents who indicated willingness to participate further, participants were purposively

selected to ensure disciplinary representation and academic-level variation. FGDs were then conducted with survey respondents representing various disciplines. Sessions lasted 60 - 90 minutes, were audio-recorded with consent, and conducted in English.

Considering the multilingual nature of South Africa, participants were given the flexibility to switch languages as needed. Instances of code-switching were transcribed exactly as they occurred, and sections that required translation into English were translated by a bilingual research assistant, with a second translator independently reviewing the translations. Any discrepancies were addressed through discussion to ensure the translations were semantically consistent. To enhance transparency, Figure 4 illustrates the research process flow.

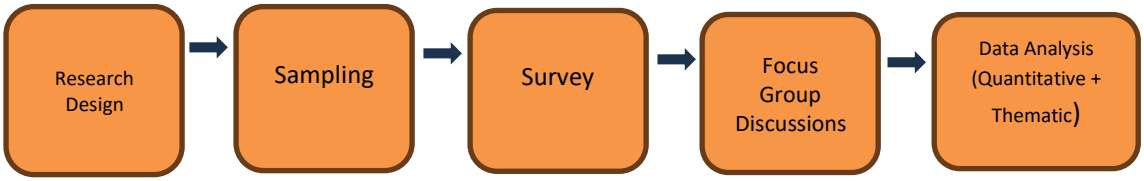

Figure 4: Research Process Flow

3.8 Data Analysis Methods

Quantitative survey data from closed-ended questions were analysed using descriptive statistics (frequency distributions, percentages, and cross-tabulations across disciplines) to identify patterns in ChatGPT adoption and attitudes. Attitudes and perceptions were defined distinctly. Attitude referred to students' evaluative views on ChatGPT, whether favourable or unfavourable, while perception encompassed their personal interpretations and understanding of ChatGPT's advantages, risks, and role in education. Clearly distinguishing these concepts ensured conceptual clarity and alignment with the TAM

Qualitative data (open-ended survey responses and FGDs) were analysed using thematic analysis following Braun and Clarke's (2006) six-phase framework: (1) familiarisation, (2) initial coding, (3) theme identification, (4) theme review, (5) theme definition, and (6) reporting. To enhance transparency, coding was conducted with the aid of NVivo 14, which facilitated systematic categorisation and retrieval of data. To support the identified codes and themes, representative excerpts from participants were selected and incorporated into the findings, ensuring that the interpretations remained true to the original qualitative data. A second coder independently analysed 20% of the transcripts, and inter-coder reliability was calculated (Cohen's Kappa = 0.82), demonstrating strong agreement.

TAM served as the primary analytical framework, with the constructs of perceived usefulness, perceived ease of use, attitude, and behavioural intention informing the interpretation of students' interactions with ChatGPT. The mixed-methods design enabled the alignment of survey-derived acceptance patterns with qualitative accounts, revealing not only general trends but also discipline-specific modes of engagement. However, applying TAM to AI-mediated learning

required contextual adaptation. The model's instrumental emphasis on efficiency and productivity was insufficient to account for the ethical, epistemic, and disciplinary issues identified qualitatively. To accommodate these dynamics, an additional construct, AI Ethical Awareness, was incorporated to capture concerns related to academic integrity and responsible use. Although not quantitatively operationalised, this construct shaped the thematic dimension of the analysis. More broadly, the findings underscore the limitations of TAM when applied to generative AI in higher education: while TAM effectively captured baseline adoption tendencies, qualitative data revealed that acceptance is mediated by disciplinary epistemologies, cognitive strategies, and academic identity, thereby justifying the explanatory mixed-methods approach adopted in this study.

4. Findings

4.1 Research Question 1: Student Perceptions and Experiences of ChatGPT Integration Across Academic Disciplines

4.1.1 Overall Perceptions of ChatGPT Integration

Survey results showed that 78% of respondents (n = 193 out of 248) expressed positive perceptions of ChatGPT in their learning, describing it as a "valuable learning companion" and an "accessible academic support tool." This proportion represents the dominant response category and is systematically reported as part of the descriptive statistical analysis of student perceptions. Respondents associated ChatGPT with enhanced learning efficiency, accessibility, and support beyond formal instructional time. These findings align with TAM's construct of perceived usefulness, as students consistently highlighted ChatGPT's role in making learning more efficient and accessible.

As one participant noted in the FGDs:

> *"I can ask it to explain the same concept in different ways until it makes sense. That's something I can't always get from a lecturer or textbook."* (Engineering, 3rd year)

This sentiment reflects both usefulness and ease of use, reinforcing ChatGPT's perceived role as a natural extension of digital learning environments.

From the open-ended responses, one survey respondent stated:

> "*ChatGPT has become a useful academic support tool that helps me understand difficult concepts more efficiently than relying only on textbooks."*

Another respondent alluded:

> "*I see ChatGPT as a supplement to my studies rather than a replacement for lectures*".

4.1.2 Disciplinary Variations in Perception

Analysis revealed distinct disciplinary perspectives:

- STEM (Computer Science, Engineering, Information Systems): Students expressed the highest acceptance, citing ChatGPT as effective for debugging, algorithm explanations, and technical problem-solving. Its professional relevance was emphasised during the FGD:

> *"It feels like practice for the workplace. If AI is going to be part of my career, learning with it now makes sense."* (Computer Science, 4th year)

From the open-ended responses, one participant noted,

> "*As a Computer Science student, I mainly use ChatGPT to debug code and explain algorithms, which fits well with my coursework*."

- Business Studies: Students valued ChatGPT for case analysis and market research, aligning with perceived usefulness for decision-making. They highlighted its role in exploring scenarios and preparing presentations.
- Social Sciences and Humanities: Students adopted a more cautious stance, appreciating ChatGPT for synthesising literature but questioning its effect on authentic voice and critical thinking.

> *"It's good for starting an essay, but if I copy too much, it doesn't sound like me anymore."* (Sociology, 2nd year).

Another respondent mentioned:

> "*In my Humanities modules, I use ChatGPT more cautiously, mostly to clarify ideas or structure arguments rather than generate final content*."

- Natural Sciences: ChatGPT was seen as helpful in structuring reports and clarifying theory but limited in advanced mathematical or symbolic work.

4.1.3 Learning Experience Enhancement

Triangulation of survey and FGDs highlighted three key areas of learning enhancement, closely aligned with TAM constructs:

- Personalised Learning Support (Usefulness): Students reported that adaptive explanations supported comprehension across contexts.
- Confidence Building (Attitude): Many felt more secure approaching difficult tasks after consulting ChatGPT.
- Time Management (Behavioural Intention): Students integrated ChatGPT into study routines, improving efficiency.

> *"Before, I would spend two hours stressing about how to start. Now I ask ChatGPT, and I can move forward quicker."* (FGD: Business, 3rd year).

Another respondent stated:

> "*Using ChatGPT gives me more confidence to start assignments because I can ask questions without feeling embarrassed."*

4.1.4 ChatGPT Usage Experience

Prior AI Tool Experience:

Table 1: Prior AI Tool Experience

Prior AI Experience	Less than 3 months	3 – 6 months	More than 6 months
Extensive	26%	44%	30%
Moderate	27%	45%	28%
Limited	30%	43%	27%

Duration of ChatGPT Usage in Academic Context:

- Less than 3 months: 28% (n = 69)
- 3-6 months: 44% (n = 109)
- More than 6 months: 28% (n = 69)

Frequency of Academic Usage:

- Daily: 31% (n = 77)
- Several times per week: 42% (n = 104)
- Weekly: 19% (n = 47)
- Occasionally: 8% (n = 19)

Data on usage indicates that ChatGPT is consistently utilised as an academic resource rather than sporadically. A significant 72% of participants (n = 178) have been using it for more than three months, allowing them to form well-informed opinions about its academic benefits. The frequent use, with 73% (n = 181) engaging with it daily or several times a week, suggests its integration into regular learning practices. This ongoing interaction enhances the credibility of conclusions regarding its perceived effectiveness and potential for continued use

4.2 Research Question 2: Perceived Benefits and Challenges Across Academic Backgrounds

4.2.1 Perceived Benefits

Survey data indicated consistent benefits across disciplines, complemented by FGD narratives. These were grouped under three dimensions:

- Academic Support and Accessibility – Clarifying complex concepts beyond class hours, offering multiple explanations, and aiding non-native English speakers.
- Learning Enhancement – Promoting interactive questioning, guided inquiry, and critical evaluation of AI outputs.
- Practical Academic Benefits – Reduced anxiety, improved academic writing, and stronger exam preparation.

FGDs reinforced these points. For example:

> *"Sometimes it gives me examples that are closer to South Africa, which makes it easier to apply theory to real life."* (Humanities, 4th year)

One survey respondent stated:

> "*ChatGPT is available at any time, which is helpful when I study late or need quick clarification outside class hours.*"

Another participant added to the discussion on the Practical Academic Benefits of ChatGPT *and* stated*:*

> *"It saves time when I am preparing for tests because I can quickly revise key concepts."*

4.2.2 Perceived Challenges

Despite benefits, challenges emerged across four categories:

- Academic Integrity: Uncertainty about ethical boundaries, with blurred lines between legitimate support and academic dishonesty.
- Quality and Reliability: Inconsistent accuracy in specialised content; difficulties verifying AI responses.
- Skill Development: Concerns about reduced independent problem-solving, creativity, and critical analysis.
- Technical/Accessibility: Connectivity issues, steep learning curve in prompt engineering, and occasional system downtime.

FGD participants emphasised:

> *"It's easy to rely on it too much. Sometimes I feel like I'm learning less because the answers come too quickly."* (Natural Sciences, 2nd year)

Survey respondents raised concerns about Academic Integrity and Quality:

> "*Sometimes it is unclear how much help from ChatGPT is acceptable, especially when working on assignments.*"

One participant alluded. Another respondent added:

> "*Some of the information provided is inaccurate or too general, so I still need to verify it.*"

4.3 Thematic Analysis

4.3.1 Technology Acceptance Model Application

4.3.1.1 Perceived Usefulness

The analysis suggests relatively highly perceived usefulness across academic disciplines, with mean ratings indicating agreement that ChatGPT may enhance learning productivity and academic performance. STEM disciplines, followed by Business Studies and Social Sciences, appeared to show the strongest levels of perceived usefulness. This pattern could be partly explained by the problem-solving orientation of STEM disciplines, which align well with the structured outputs of AI tools. However, the overrepresentation of STEM participants in the sample may have influenced these results, warranting cautious interpretation.

4.3.1.2 Perceived Ease of Use

Students generally reported that ChatGPT was easy to use, with few technical barriers to adoption. Nonetheless, perceptions of ease of use appeared to vary according to students' proficiency in prompt engineering and their awareness of

AI's capabilities and limitations. This suggests that technical skill and digital literacy mediate the accessibility of Gen-AI in higher education, a factor that has been underexplored in prior TAM applications.

4.3.1.3 Attitudes toward Using Technology
Attitudes toward ChatGPT were generally positive across disciplines, although disciplinary nuances emerged. Humanities students tended to express more cautious attitudes, often citing concerns about authenticity and originality, whereas STEM students reported a more pragmatic stance. Social Sciences students expressed balanced views, acknowledging AI's potential benefits while simultaneously raising questions about its implications for critical thinking and academic identity. These findings highlight that disciplinary epistemology may influence attitudes toward adoption of AI, adding nuance to existing TAM-based studies.

4.3.1.4 Behavioural Intention to Use
Strong intentions to continue using ChatGPT were observed, with approximately 89% of participants indicating they were likely to integrate the tool into future academic work. While this aligns with prior research demonstrating high adoption intentions for emerging technologies among digitally literate student populations, it also raises questions about institutional readiness to provide guidance on responsible usage.

Quantitative data on benefits and challenges across various fields were analysed using descriptive statistics, including mean scores and frequency distributions. High scores for usefulness and ease of use indicate that students experienced academic benefits in terms of efficiency, understanding, and confidence in completing tasks. Conversely, lower scores in areas like academic integrity, confidence, and output accuracy highlight the challenges identified through qualitative analysis. This correlation between quantitative and qualitative results illustrates a mixed-methods approach, where numerical trends reinforce the benefits and challenges explored in RQ2.

4.3.2 Emergent Themes
Theme 1: AI as a Learning Catalyst: Students described ChatGPT as facilitating deeper engagement with academic content, particularly through interactive dialogue that supports the clarification of concepts. In numerous fields of study and at various educational stages, students consistently recognise ChatGPT as an effective tool for unravelling complex ideas and enhancing their autonomous learning experiences. This finding resonates with prior studies highlighting AI's role in personalised scaffolding but also extends the literature by demonstrating its integration into informal learning contexts.

Theme 2: Disciplinary Adaptation Strategies: Research indicates that students adjusted their use of ChatGPT to align with the expectations of their academic disciplines. Students in STEM fields primarily used the tool to solve problems, whereas those in the Humanities used it to gain conceptual insights and assistance with writing. These differences reflect previous studies on how technology is

adopted in specific academic areas, yet they also prompt discussions about the fairness of AI's educational benefits across various fields of knowledge.

Theme 3: Academic Integrity Navigation: Students reported developing "personal codes" to navigate academic integrity concerns, often seeking clarity from instructors regarding acceptable use. This theme is evident in recurrent references to uncertainty, self-monitoring, and the establishment of personal ethical boundaries. Such practices highlight the lack of consistent institutional guidance on generative AI and demonstrate students' proactive efforts to navigate ethical boundaries independently. The emergence of personal codes reflects a gap between institutional policy frameworks and student practices, underscoring the need for clearer guidance to mitigate risks of academic misconduct.

Theme 4: Collaborative Learning Enhancement: Rather than replacing peer-to-peer learning, students often used ChatGPT as a complement, leveraging AI-generated insights as prompts for group discussions and collaborative projects. This supports research suggesting that AI can augment rather than supplant social learning processes. However, the reliance on AI as a conversation starter also raises critical questions about whether long-term overreliance might weaken students' own generative capabilities.

Theme 5: Metacognitive Skill Development: An unexpected theme emerged from the role of ChatGPT in promoting metacognitive skills, as students reflected on AI outputs, formulated more precise queries, and monitored their own understanding. Although emerging studies have begun to yield similar results, this finding may offer a unique contribution to the field of higher education, particularly given that previous research based on TAM has primarily focused on efficiency and usability rather than reflective practice. The themes provide a qualitative insight into students' perceptions and experiences of learning (RQ1) and illuminate the advantages and disadvantages of using ChatGPT in various academic disciplines (RQ2), making them the primary findings of the study rather than the result of additional analyses.

This study's combination of quantitative and qualitative elements offers complementary insights that enhance the interpretation of the two research questions. The survey results revealed differences in perceived usefulness, ease of use, and behavioural intention among various disciplinary groups, while the qualitative themes shed light on how and why students encountered these differences in practice. This type of complementarity aligns with explanatory sequential mixed methods designs, where qualitative findings expand upon and provide context for quantitative patterns rather than confirm them.

4.4 Summary Across Disciplines

Table 2: Summary Across Disciplines

Discipline	Key Benefits (Usefulness)	Key Challenges (Limitations)
STEM	Debugging, algorithm explanation, and industry relevance	Limited advanced mathematics, code accuracy
Business Studies	Case analysis, market research, scenario generation	Over-reliance, lack of contextual business nuance
Social Sciences & Humanities	Literature synthesis, multiple perspectives	Authentic voice, citation challenges
Natural Sciences	Concept clarification, lab report structuring	Complex calculations, limited updated data

4.5 Linking Findings to Research Gap

The findings demonstrate that while students in South Africa perceive ChatGPT as a highly useful educational tool, disciplinary nuances shape adoption and concerns. Unlike global studies that focus primarily on generic adoption patterns, this research highlights localised benefits and challenges across South African higher education disciplines, filling the gap in the literature on context-specific integration.

The combination of survey data, which provides a broad perspective, and focus group insights, which offer depth, addresses the research gap by demonstrating that the disciplinary and ethical facets of AI adoption extend beyond the scope of what quantitative measures can capture alone. This underscores the necessity for qualitative narratives of actual learning experiences and decision-making processes. The integrated evidence base has significant implications for policy and educational practices, particularly regarding the ethical use of AI, AI literacy, and the development of assessment strategies.

5. Discussion

5.1 Extending the Technology Acceptance Model

The findings extend TAM by revealing that acceptance of AI in education encompasses additional constructs beyond perceived usefulness, ease of use, attitude, and behavioural intention. Emergent factors such as *academic integrity, navigation,* and *disciplinary appropriateness* suggest that technology adoption frameworks must account for ethical and contextual dimensions specific to educational environments (Li et al., 2025). These expansions are consistent with recent studies suggesting that TAM extensions incorporate ethical and trust aspects in the adoption of AI.

The consequences of these findings extend across demographic groups. Students from diverse socio-economic backgrounds, gender identities, and language abilities exhibited unique patterns in their use of AI, underscoring disparities in access and technological proficiency. This aligns with international studies revealing differences in ChatGPT awareness and usefulness within African higher

education settings (e.g., Morocco, Nigeria, and Tanzania), where gender and regional factors influenced adoption results (Ojubanire et al., 2025).

When compared with other models, TAM's explanatory power appears limited. UTAUT highlights social influence and facilitating conditions, both of which resonate with students' calls for institutional guidelines and peer-driven "personal codes" of ethical use (Venkatesh et al., 2003). The Diffusion of Innovation Theory also emphasises the importance of aligning with current practices, a factor supported by studies that show both relative advantage and compatibility play crucial roles in the adoption of generative AI (Singh & Strzelecki, 2025). STEM's emphasis on problem-solving contrasts with the Humanities' use for critical reflection.

These comparisons indicate that implementing AI in higher education might require a hybrid framework merging the TAM with elements from UTAUT and Diffusion of Innovation theory. This approach would address the interactions of ethics, context, discipline, and demographic factors. This integrated view aligns with recent initiatives to broaden TAM in AI literacy and intelligent pedagogical knowledge, aiming to elucidate acceptance dynamics by incorporating AI literacy and perceived trust into TAM models (Al-Abdullatif, 2024).

Furthermore, these results align well with earlier studies, which have shown that the acceptance of technology is influenced by socio-cultural and contextual factors. For instance, research suggests that trust and perceived intelligence play a significant role in moderating the link between awareness and the intention to adopt AI tools, highlighting the importance of considering context-specific factors in the application of TAM. Crucially, these findings suggest that educators should not presume that AI integration is uniform across various disciplines or student groups. Rather, teaching strategies must intentionally foster AI literacy and ethical thinking, while institutions ought to establish structured support systems to address student uncertainties and inequalities in access to digital resources.

5.2 Disciplinary Learning Theory

The disciplinary variations observed support disciplinary learning theory, which emphasises the role of epistemological traditions in shaping pedagogical engagement. For example, STEM students reported using ChatGPT for structured problem-solving, aligning with positivist traditions that privilege efficiency and accuracy. By contrast, Humanities students expressed more cautious attitudes, using the tool primarily for conceptual clarification and writing support, reflecting the field's emphasis on originality, interpretation, and critical thinking. Business Studies students highlighted ChatGPT's role in generating practical scenarios, suggesting alignment with applied, practice-oriented epistemologies.

These findings demonstrate that AI integration is not discipline-neutral but must be adapted to epistemic cultures, a nuance that has been underexplored in previous AI-in-education research. For educators, this suggests the need for instructional design tailored to the characteristics of each discipline, rather than uniform "AI skills training" that overlooks epistemic variations. By adapting AI

activities to fit distinct knowledge frameworks, educators may foster acceptance and reduce resistance, particularly in disciplines where authenticity and authorship hold academic importance.

6. Practical Implications

6.1 Pedagogical Integration Strategies

While normative recommendations are valuable, practical strategies must demonstrate applicability in disciplinary curricula. For instance, in STEM courses, ChatGPT could be integrated into problem-based learning activities where students critique AI-generated solutions rather than simply adopting them. In Humanities, ChatGPT might be used to generate multiple perspectives on a text, prompting students to engage in comparative critique. In Business Studies, AI could simulate case-study scenarios, allowing students to test decision-making frameworks against AI-generated insights.

These examples demonstrate that ChatGPT can enhance metacognitive skills while maintaining disciplinary integrity when guided by thoughtful pedagogy. These methods highlight a significant consequence for the preparation of educators: universities will need to offer professional development programs that enable lecturers to craft AI-integrated learning activities that conform to the expectations of their specific fields, rather than relying on unstructured, student-initiated experimentation.

6.2 Institutional Policy Development

Institutional policies should shift from restrictive regulations to developmental guidance. Discipline-sensitive guidelines could specify appropriate uses (e.g., STEM: checking code efficiency; Humanities: generating comparative arguments). Policies should also explicitly address *equity of access*, as students in under-resourced institutions may lack reliable internet connectivity or devices, exacerbating inequalities in AI-enabled learning.

This calls for an institutional focus not only on ethical use but also on providing enabling infrastructure. For those crafting policies, the study's insights underscore the importance of AI governance in higher education, prioritising clarity, consistency, and skill enhancement. Policies that concentrate solely on preventing misuse, without specifying acceptable educational practices, may compel students to establish their own informal ethical guidelines, thereby exacerbating the gap between institutional expectations and students' actual behaviours.

7. Contextual Considerations

7.1 South African Higher Education Context

The findings must be read in light of South Africa’s diverse and unequal higher education landscape. While multilingual students, particularly English Additional Language speakers, reported positive benefits from ChatGPT for academic communication, the persistent digital divide remains a structural constraint. Students from rural and underfunded institutions face barriers to consistent access to AI, limiting the transformative potential of ChatGPT. This

highlights a paradox: while AI can democratise access to knowledge, it can also deepen inequalities without deliberate institutional intervention.

7.2 Generational and Technological Factors

Although undergraduate students demonstrated digital fluency consistent with generational assumptions of "digital nativism," their concerns about academic authenticity challenge the notion that young learners are uncritical adopters of technology. This finding aligns with emerging studies showing that Gen Z and post-Gen Z learners often adopt a nuanced stance toward technology, striking a balance between enthusiasm and caution. In the South African context, this reflexivity may also be shaped by broader debates about decolonisation of curricula and the authenticity of knowledge sources.

8. Limitations and Future Research

8.1 Study Limitations

While the findings provide valuable insights, they should be interpreted with caution. The higher representation of STEM students may have skewed results toward stronger perceptions of usefulness and ease of use. Moreover, the analysis remains constrained by its descriptive orientation, and further research is needed to critically evaluate how the observed themes align with or diverge from established literature. Importantly, the study contributes by extending TAM applications into the context of Gen-AI, while identifying disciplinary differences and emergent learning processes, such as metacognition, which remain underdeveloped in prior work.

8.2 Future Research Directions

Future research could benefit from more strategic methodological frameworks to build on current findings. Longitudinal mixed-methods research could observe the progression of student perceptions, usage strategies, and ethical standards over time as institutional policies develop. Studies focusing on multilingual prompt analysis could examine how language proficiency and linguistic identity affect AI usage in multilingual higher education environments, such as those in South Africa. Comparative research across institutions or countries, particularly within the Global South, can provide valuable insights into how infrastructural capacity, digital inequality, and policy readiness influence AI adoption. Experimental or quasi-experimental studies that assess learning outcomes in AI-supported educational settings can help determine whether perceived benefits translate into actual academic improvements.

9. Conclusion

The integration of ChatGPT in South African higher education demonstrates that while students across disciplines perceive the tool as beneficial for accessibility, confidence, and engagement, they also recognise risks related to integrity, overreliance, and uneven access. Theoretically, the study extends the Technology Acceptance Model by demonstrating that ethical navigation and disciplinary appropriateness are integral to AI adoption dimensions that have been underexplored in global research. Practically, the findings suggest that discipline-specific integration strategies and clear institutional policies are essential to

maximise benefits while safeguarding learning outcomes. Contextually, the research highlights the role of multilingualism, digital inequities, and the epistemic traditions of South African higher education in shaping the use of AI, thereby broadening the predominantly Global North focus of existing studies.

The uniqueness of the study lies in its emphasis on student agency, as undergraduates actively engage with the role of AI in their education, adding complexity to discussions that often praise AI or caution against its dangers. Nonetheless, there are limitations. The sample's heavy STEM focus may skew the results towards learners who are more technologically adept, making them less applicable to fields such as the humanities, social sciences, and creative arts. The descriptive nature of the analysis restricts its generalizability; the findings are more exploratory than explanatory.

The study depends on self-reported perceptions, which could introduce recall bias and social desirability effects. Contextual elements, such as institutional policies, infrastructure, and assessment cultures, were not thoroughly explored; yet, they significantly affect adoption patterns. The study did not assess actual learning outcomes, leaving open questions about whether the use of AI enhances understanding or exacerbates inequality. Future research should investigate multilingual practices, the role of AI in curriculum decolonisation, and long-term adoption trends.

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Appendix 1: Survey Questions

Student Perceptions and Experiences of ChatGPT Integration in Higher Education
When you submit this form, it will not automatically collect your details, like name and email address, unless you provide them yourself.
Introduction

You are invited to participate in a study exploring undergraduate students' perceptions and experiences of using ChatGPT in higher education. This questionnaire aims to understand how students from different academic disciplines use ChatGPT, the benefits and challenges they encounter, and their views on its role in supporting learning.
Your responses will help identify effective ways to integrate AI tools into teaching and learning, ensuring academic integrity and enhancing student success. There are no right or wrong answers—please answer honestly based on your own experiences. All information will be kept confidential and used for research purposes only.
The questionnaire should take approximately 10–15 minutes to complete. By proceeding, you indicate your consent to participate voluntarily in this study.
1. Gender:

- Woman
- Man
- Non-binary
- Prefer not to say

2. Age

- 17 and below
- 18- 22
- 23 and above

3.Faculty/Academic Discipline:

- Computer Science/Information Technology
- Engineering
- Social Science
- Natural Sciences
- Humanities
- Business Studies

4. Year of Study:

- 2nd
- 3rd
- Final Year

5. First Language:

6. English as

- First Language
- Additional Language

Next

Section B: ChatGPT Usage Experience

7. How long have you been using ChatGPT for academic purposes?

- Less than 3 months
- 3-6 months
- More than 6 months

8. Frequency of academic usage:

- Daily
- Once a week
- Weekly
- Occasionally

9. For which academic purposes do you primarily use ChatGPT? (Select all that apply)

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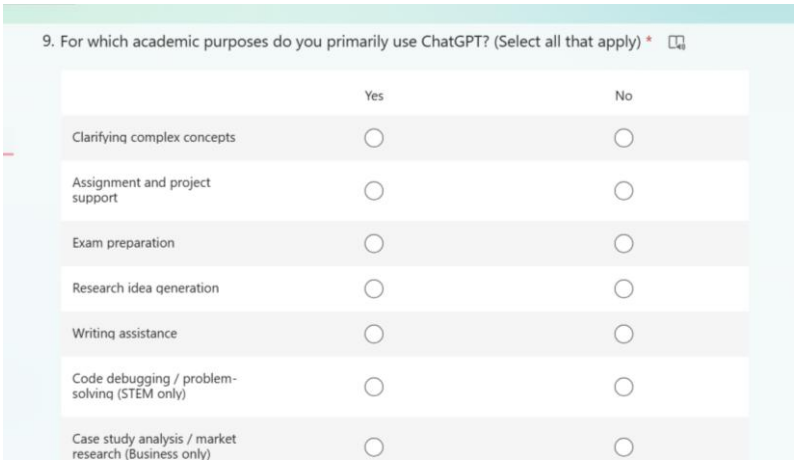
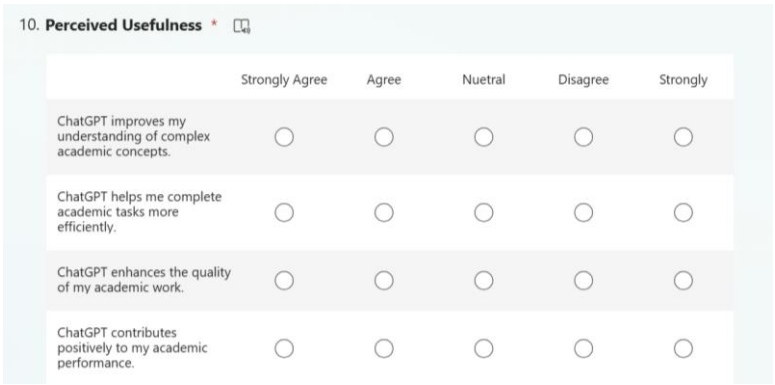


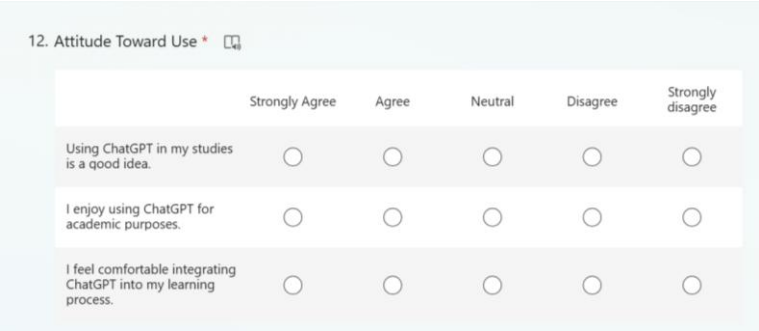
Section C: Perceptions of ChatGPT Integration (TAM Constructs)

10. **Perceived Usefulness**

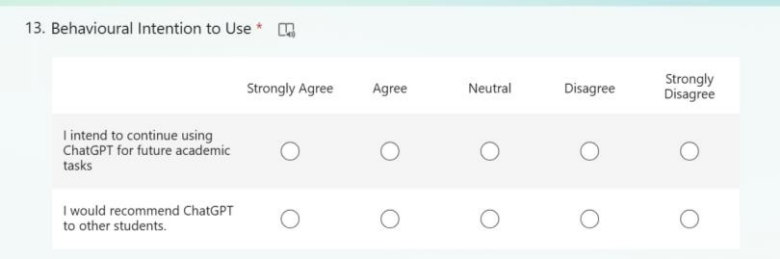


11. Perceived Ease of Use

12. Attitude Toward Use



13. Behavioural Intention to Use



14. In your own words, describe the most valuable ways ChatGPT has supported your learning.

15. How has ChatGPT impacted your confidence in tackling academic tasks?

16. How has ChatGPT impacted your time management?

17. How has ChatGPT impacted your engagement with academic content?

18. How has ChatGPT affected your academic communication skills if you are a non-native English speaker?

19. Have you experienced any concerns about academic integrity when using ChatGPT? Please explain.

20. How do you verify the accuracy of information provided by ChatGPT?

21. Have you noticed any negative impacts on your skills (e.g., critical thinking, problem-solving, writing)?

22. What limitations have you experienced when using ChatGPT in your discipline?

23. Are there technical or accessibility issues that have affected your use of ChatGPT?

24. How well does ChatGPT align with the requirements and norms of your academic discipline?

25. How do you ensure that ChatGPT use in your work complies with your institution's academic integrity guidelines?

26. What guidelines or support would help you use ChatGPT more effectively and ethically?

27. What recommendations would you give to lecturers and universities about integrating ChatGPT into higher education?

Back Submit