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ADOPTION AND PERCEPTION OF CHATGPT AMONG ACADEMICS AS A PEDAGOGICAL AND RESEARCH TOOL IN HIGHER EDUCATION IN CHILE

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ABSTRACT: The objective of this study was to explore how university professors in Chile adopt and perceive the use of ChatGPT as a pedagogical and research tool. A qualitative methodology with an exploratory-descriptive design was used, based on semi-structured interviews with 21 professors from various disciplines, analyzed through inductive thematic analysis. The results identify three main motivations for its use (curiosity, professional development, and enjoyment), two key facilitators (speed and accessibility), and three recurring barriers (hallucinations, dependency, and digital skills gaps). A positive impact will also be observed in reducing operational burden and generating materials, along with the challenge of redesigning assessments and establishing clear institutional policies. These findings provide empirical evidence to guide the responsible and effective integration of generative artificial intelligence in higher education.

***Keywords*:** ChatGPT, generative artificial intelligence, higher education, technology adoption, academics.

INTRODUCTION

The emergence of Generative Artificial Intelligence (GAI) and linguistic models such as ChatGPT has rapidly transformed educational settings around the world. These tools, capable of generating text, answering complex questions, structuring ideas, and assisting in various cognitive tasks, have challenged traditional teaching and learning frameworks. In higher

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education, their use has expanded rapidly, positioning them as a resource for both students and teachers in a context of increasing digitization and rethinking of educational processes (Batista et al., 2024; Islam, I., & Islam, M., 2024). As Zawacki-Richter et al. (2019) argue, the integration of emerging technologies requires not only technical innovation but also structural reflection that articulates institutional governance, teacher training, and educational policies.

From a pedagogical perspective, AIgen has been valued for its potential to diversify teaching methods, automate routine tasks, and facilitate personalized learning experiences. Tools such as ChatGPT allow, for example, the creation of teaching materials, the writing of academic papers, and the resolution of conceptual doubts, promoting a more flexible, autonomous, and student-centered education (Jeon and Lee, 2024; Rehman and Kang, 2025). Kumar (2023) highlights that these technologies can enhance co-agency between teachers and students, generating more horizontal and meaningful interactions. Likewise, their ability to adapt to individual learning rhythms and styles has been pointed out as an opportunity to improve student motivation and retention (Salazar et al., 2024).

However, this enthusiasm coexists with fundamental questions about the impact that AIgen may have on critical thinking, intellectual authorship, and knowledge construction. Recent research warns that uncritical or instrumental use of these tools could weaken students' analytical skills, encourage unintentional plagiarism, or create a false sense of conceptual mastery (Chomsky et al., 2023; Ojeda et al., 2023). Kumar (2023) emphasizes that over-reliance on AI can undermine students' ability to question, evaluate, and construct their own knowledge, thereby compromising one of the fundamental pillars of higher education.

Added to this are structural inequalities that affect access to and use of technology. Although tools such as ChatGPT are, in principle, freely accessible, their effective use requires advanced digital skills, connectivity, and technological resources that are not equitably distributed among institutions or students (Arteaga et al., 2025). This digital divide threatens to deepen existing inequalities in the education system, restricting meaningful learning opportunities for the most vulnerable sectors (Sosa et al., 2025). As Caicedo-Basurto et al. (2024) point out, the lack of digital infrastructure and training in disadvantaged contexts

limits the creative and thoughtful use of these technologies, reducing their transformative potential.

Furthermore, the use of AI poses significant challenges for higher education institutions. The absence of clear guidelines on its implementation has generated uncertainty among teachers and students, leading to disparate responses ranging from outright prohibition to uncritical incorporation (Al-Zahrani and Alasmari, 2024). Sallam et al. (2024) emphasize the need to accompany technological integration with explicit institutional policies that promote the responsible, transparent, and contextualized use of technology. Likewise, pedagogical leadership becomes key to guiding processes of critical appropriation, preventing the incorporation of these tools from becoming a mere technical solution disconnected from educational purposes (Gil-Vera, 2024; Vieriu and Petrea, 2025).

In this scenario, the present qualitative research aims to explore how university academics in Chile are incorporating ChatGPT into their teaching and research practices. This study responds to the scarcity of qualitative empirical evidence in the Chilean and Latin American context on the use of generative artificial intelligence in higher education, a field dominated until now by conceptual analyses or studies conducted in countries with developed economies. Through semi-structured interviews with 21 teachers from various disciplines, their uses, perceptions, ethical dilemmas, and projections about the future of AI in higher education are analyzed.

Otero and Suárez-Jasso (2025) argue that the deployment of AI in educational settings requires governance frameworks that ensure academic integrity and equity, beyond initial enthusiasm. Thus, this study seeks to offer a situated understanding of the phenomenon, recognizing that the integration of AI is not only a technological issue, but also a pedagogical, institutional, and ethical one, providing empirical evidence to guide educational and institutional decisions in a context of profound transformation.

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DEVELOPMENT

AI refers to systems capable of producing original content (text, images, audio, or video) based on patterns learned from large volumes of data (Sallam et al., 2024). Among these technologies, ChatGPT, developed by OpenAI, has gained relevance in academic settings due to its ability to generate coherent and contextually relevant responses based on natural language instructions (Islam, I. and Islam, M., 2024).

According to Villarino (2025), the emergence of ChatGPT has marked "a turning point in the way teaching and learning are conceived, especially in contexts with limited human and material resources" (p. 46). In this sense, its use is not limited to answering questions, but has extended to the development of materials, feedback on activities, and research support (Caicedo-Basurto et al., 2024).

Several studies have documented benefits associated with the use of ChatGPT in higher education. Sallam et al. (2024) highlight its ability to solve complex problems in less time and with a high degree of accuracy in certain areas. Along the same lines, Villarino (2025) emphasizes that "the integration of ChatGPT has made it possible to improve the efficiency of academic processes, optimizing the time spent on repetitive tasks" (p. 51).

Islam, I. and Islam, M. (2024) point out that, beyond efficiency, the potential of ChatGPT lies in "facilitating autonomous learning, providing immediate feedback, and adapting to different learning styles" (p. 4). These advantages can promote the personalization of teaching and the development of digital skills in both teachers and students (Caicedo-Basurto et al., 2024).

However, the literature warns that the incorporation of ChatGPT into education carries risks and limitations. One critical aspect is the phenomenon of "hallucinations" or the generation of plausible but incorrect information, which can affect the reliability of the content (Sun et al., 2024). Villarino (2025) emphasizes that "overreliance on these tools without rigorous verification can lead to the reproduction of errors and biases" (p. 54).

Other risks include the potential decline in critical thinking, overconfidence in automatic responses, and a lack of skills to validate information (Islam, I., & Islam, M., 2024). In

addition, ethical debates are emerging related to plagiarism, intellectual authorship, and equity in access to technology (Otero & Suárez-Jasso, 2025).

On the other hand, the acceptance of new technologies in educational contexts has often been explained by the Technology Acceptance Model (TAM), which considers perceived usefulness and ease of use as key predictors of intention to use (Davis, 1989, as cited in Villarino, 2025). Recent adaptations, such as TAME-ChatGPT, incorporate dimensions related to trust, digital skills, and ethics, recognizing the particularities of generative AI in education (Islam, I., and Islam, M., 2024).

According to Villarino (2025), "understanding the factors that influence the adoption of ChatGPT allows for the design of more effective institutional policies and training strategies tailored to the real needs of teachers and students" (p. 58).

METHODOLOGY

1. Research approach and design

This study adopts a qualitative interpretive approach, which is appropriate for exploring subjective experiences, socially constructed meanings, and complex perceptions of emerging phenomena such as the use of artificial intelligence (AI) in higher education (Denzin and Lincoln, 2018; Merriam and Tisdell, 2016). In particular, the study is framed within an exploratory-descriptive design, aimed at understanding how university academics are incorporating ChatGPT into their teaching and research practices, what specific uses they give it, what challenges they face, and what implications they perceive in student behavior and the teaching role.

This design is based on the epistemological assumption that social reality is constructed by individuals in interaction with their context, making it relevant to privilege the voices of the actors involved (Creswell and Poth, 2018). Through this approach, we seek to provide empirical evidence that complements the normative and technical debates on artificial intelligence in education, from a perspective focused on the actual practices of teachers.

2. Participants and selection criteria

The sample consisted of 21 university academics from different disciplines, levels of experience, and teaching roles in Chilean universities. The number of interviews was determined according to the principle of theoretical saturation (Patton, 2015; Creswell and Poth, 2018), i.e., interviews continued until no new categories relevant to answering the research question emerged. This threshold was reached in interview number 19, but two additional interviews were incorporated to ensure disciplinary diversity and confirm saturation.

Table 1

Characterization of participants

Interviewee	Gender	Subject area	Primary use	Years of teaching experience
E1	Woman	Education	Teaching	6-10 years
E2	Woman	Health sciences	Teaching	11-15 years
E3	Woman	Social sciences	Teaching	6-10 years
E4	Woman	Education	Teaching	11-15 years
E5	Woman	Social sciences	Teaching	1-5 years
E6	Woman	Humanities	Research	11-15 years
E7	Man	Engineering	Research	6-10 years
E8	Woman	Social sciences	Teaching	1-5 years
E9	Woman	Humanities	Research	11-15 years
E10	Man	Health sciences	Teaching	6-10 years
E11	Woman	Humanities	Teaching	6-10 years
E12	Man	Engineering	Research	11-15 years
E13	Man	Health sciences	Teaching	11-15 years
E14	Woman	Social sciences	Teaching	1-5 years
E15	Man	Engineering	Research	11-15 years
E16	Man	Engineering	Teaching and research	6-10 years
E17	Man	Engineering	Teaching	6-10 years
E18	Woman	Education	Teaching	11-15 years
E19	Man	Engineering	Teaching and research	11-15 years
E20	Man	Social Sciences	Teaching	6-10 years
E21	Woman	Pedagogy	Teaching	1-5 years

There were four inclusion criteria for participating in the study: (1) being employed in university teaching at the time of the interview; (2) having used the ChatGPT tool at least once in teaching or research activities; (3) being a Chilean national or working as a teacher in higher education institutions in Chile; and (4) being willing to critically reflect on their experience and perceptions in relation to this technology. The sample consisted of academics from various disciplines, such as education, social sciences, engineering, health sciences, and humanities.

These inclusion criteria ensured that participants had direct and recent experience in using ChatGPT in teaching or research, that their contributions were framed within the Chilean educational context, and that they represented a diversity of disciplines. This heterogeneity facilitated the collection of multiple perspectives, uses, and forms of appropriation of generative artificial intelligence, as well as the identification of emerging tensions in its integration into university education.

3. Data collection technique

Semi-structured interviews were used as the main form of data collection. This tool is widely used in qualitative studies due to its flexibility and ability to delve deeper into individual experiences, while allowing for a certain degree of comparability between cases (Kvale and Brinkmann, 2015).

The interviews were conducted individually, virtually, and lasted an average of 30 to 60 minutes. A semi-structured interview guide was created to analyze in depth the experiences and perceptions of university academics regarding the use of ChatGPT. The questions addressed five thematic areas: (1) how the tool is currently used in teaching and research tasks; (2) perceived changes in their own teaching methods since its arrival; (3) observations on how students use this technology; (4) ethical, legal, or political dilemmas involved in its use; and (5) how they think AI could be used in higher education in the future.

All interviews were recorded with informed consent, then transcribed in full and coded with pseudonyms to protect the identity of the participants, in accordance with the ethical principles of qualitative research (Tracy, 2020).

4. Analysis strategy

Data analysis followed a manual inductive thematic approach in six phases: (1) familiarization with the data through iterative reading of the transcripts; (2) manual open coding to identify units of meaning; (3) grouping of codes into preliminary thematic categories; (4) review of themes to ensure internal consistency and external differentiation; (5) defining and naming the themes; and (6) preparing the analytical report, integrating participants' textual quotes and linking them to the theoretical framework. The process was supported by organizational matrices and validated through triangulation among researchers to strengthen the reliability of the analysis (Nowell et al., 2017).

RESULTS

1. Motivations for using ChatGPT

This section explores the reasons that led academics to adopt ChatGPT, organized into three subcategories: (1) trend and curiosity, (2) work necessity, and (3) hedonistic motivation.

We observe how the "trend" of ChatGPT is combined with genuine technical curiosity: the interviewee, who works on developing AI models in his professional life, decided to try ChatGPT to assess whether the tool was useful in his workflow.

> "I would say mainly curiosity. Here, the discussions started more out of fear, like, 'hey, all the students are going to be doing their work because of [ChatGPT],' but on the other hand, I saw it the same way as with Google... I was very curious to understand how revolutionary this is" (E14).

In this excerpt, the interviewee compares the arrival of ChatGPT with the adoption of Google years ago, recognizing a double effect: concern about "what will happen to students' work" and curiosity about its "revolution" in content generation.

For another group of interviewees, the motivation was not fashion, but rather the need to familiarize themselves with a technology that was already making inroads into their professional fields and the industry in general.

> "I feel that, on a private level, companies are already addressing issues of digitization and, above all, some artificial intelligence tools without knowing which direction to take them. Many things are still unknown. But I'm interested in the academic side because it's clear that students who are going to run companies need to know about the tools available. So, for both reasons, I started to learn about and use ChatGPT" (E2).

It was noted that companies were already experimenting with AI, and therefore, he considered it essential that the students in his courses (future managers or executives) also become familiar with these technologies.

> "I use it because, well, some time ago, when it first came out, there was this AI that could help you with routine activities, such as generating material and supplementing class exercises. Like all material creation for a class, it takes quite a bit of time. Specifically, I do my Master's classes in LaTeX, so you have to program each presentation, and ChatGPT helps me generate templates or resolve syntax issues much faster" (E19).

This professor of finance and econometrics highlights the time savings when creating slides in LaTeX: a task that used to take him several hours is now reduced to minutes.

Although the two previous groups combine technical and professional concerns, a third group emphasizes personal satisfaction and the "entertainment" factor of interacting with ChatGPT. For them, beyond usefulness, there is a playful component to exploring "how good" or "wise" the answers are.

When describing their "satisfactory situation," the interviewee highlights that they subjected ChatGPT to 'games' (deliberately complex prompts) to measure its capabilities. The surprise of seeing coherent text, even if it was not always 100% accurate, generated cognitive pleasure.

> "How does it feel to use ChatGPT for teaching? It's like having a partner who surprises you. It gives you ideas you've never considered before, and even if it's sometimes wrong, it provokes that feeling of wonder" (E16).

The hedonic dimension is clear: ChatGPT provides a component of "intellectual entertainment" that encourages these academics to continue using it, even if only "to see how far it goes."

2. Technical and contextual facilitators

Most interviewees agree that ChatGPT is fast and accessible, as it responds in seconds, which is a stark contrast to traditional search methods (e.g., searching databases or manuals): "First, it's fast; second, I can connect from any device; third, it remembers your queries" (E1).

In addition, ChatGPT allows for continuity in the conversation (up to a certain token limit), so that the user can delve deeper into a topic without having to repeat contextual information: "If I start by asking about rubric design and then ask for specific examples, ChatGPT remembers that we are talking about assessment and does not repeat basic definitions" (E2).

The ability to maintain a conversational thread facilitates iterative conversations without having to repeat background information, which saves effort when delving deeper into a topic.

On the other hand, ChatGPT's interface is simple and intuitive, making it easy for academics to consider it "self-explanatory" without the need for formal training. The simplicity of the text field and "Send" button eliminates the learning curve, allowing teachers in any field (even those without programming knowledge) to use ChatGPT immediately. "I find the interface to be very well designed. It gets right to the point: you write what you want, and in seconds it gives you a text" (E17).

Together, these three elements (speed, context, and usability) create an environment that encourages adoption without intensive technical training or specialized infrastructure. However, as seen in point 3, these facilitators coexist with significant barriers.

3. Perceived barriers and difficulties

Although there are technical attractions and strong motivations, interviewees also identified a series of obstacles, most of which fall into four categories: (1) reliability and "hallucinations"; (2) usage habits and risk of dependency; and (3) knowledge gaps for integrating the tool.

Reliability and "hallucinations" refer to the phenomenon whereby ChatGPT generates 'plausible' but erroneous responses, which generates mistrust and forces the user to verify all the information. One interviewee mentions, "Once I asked ChatGPT a math problem to help my nephew; it gave me the solution with logic, but the result was incorrect. I said to myself, 'this must be wrong'" (E1).

Plausible errors generate mistrust and force users to verify all answers with academic sources, which limits the degree of automation. One interviewee comments: "It invented super convincing Latin American authors that don't exist. That's where the hallucinations come in" (E11).

On the other hand, some interviewees use ChatGPT frequently, but many warn of the importance of not becoming dependent on the tool, preferring to check traditional sources first. One mentions: "I only use it once a week for specific queries. First, I check bibliographic sources, and if I have doubts, I consult ChatGPT. I'm not dependent on it" (E3).

To avoid dependence, academics use ChatGPT strategically and warn students about its non-definitive nature. It is noted that: "I do rely heavily on the tool: it facilitates repetitive tasks and provides guidance. But I don't consider myself dependent: I teach students that ChatGPT is not 'the absolute truth'; it is a tool that must be questioned" (E16).

Furthermore, although the interface is intuitive, several interviewees acknowledge that there is a digital and methodological skills gap that limits the optimal use of ChatGPT. For example: "I don't know how to build assessment tools that include ChatGPT; I'm behind in that area" (E2).

It is not enough to be able to "write a message"; for advanced uses (e.g., "integrating ChatGPT into data analysis pipelines"), programming and result validation skills are required.

> "It's not accessible to every teacher, but it depends on the result you're looking for. For example, some colleagues program in R or Python and connect ChatGPT to Excel. They know how to check whether what it delivers is correct or not. I'm not a programmer, so I could ask them to do it, but I wouldn't be able to check if it's right" (E14).

4. Perception of impact on teaching

Finally, interviewees describe how ChatGPT influences their teaching practice, from reducing workload to the challenge of redesigning assessments. Two main areas are described: reducing workload and redesigning assessments.

Several interviewees agree that ChatGPT frees up time to focus on the essence of the pedagogical process (critical analysis, interaction with students, and conceptual design). For example: "Creating material for Master's classes in LaTeX used to take me eight or nine hours. With ChatGPT, it only takes me ten minutes. I don't lose out on personal learning, but I do significantly reduce my working time" (E19).

In addition, it is emphasized that the savings are not only in minutes, but in full days, when designing case studies for management courses. For example: "It saves me one or two days of work when preparing case studies" (E2).

Finally, the main challenge reported by the interviewees is to rethink the way in which assessment is carried out, to prevent students from relying on ChatGPT and simply copying and pasting answers: "I am concerned that students will copy answers without understanding them. I have to design tasks that require critical thinking, not literal definitions" (E3).

The risk of believing in "false perfection" is highlighted: if the teacher does not detect 'logical' errors in the generated response in time, students could reproduce incorrect

information in their exams: “When I saw plausible but erroneous answers, I understood that ChatGPT-based exams cannot be used without supervision” (E15).

To avoid plagiarism and maintain the quality of learning, it is suggested to evaluate through projects, oral debates, case studies, and rubrics focused on argumentation. Taken together, these motivations, facilitators, and barriers paint a complex picture of the adoption of ChatGPT in Chilean university teaching.

DISCUSSION OF RESULTS

This overview coincides with international trends reported in recent studies (Acosta-Enríquez et al., 2024; Fitzek and Bârgăoanu, 2025), which highlight both the transformative potential and the ethical and methodological challenges of generative AI.

The discussion of the results shows that the motivations for adopting ChatGPT among Chilean academics coincide with international findings that underscore the relevance of perceived usefulness and ease of use in the adoption of AI.

In the study, several interviewees mentioned that, although its use originated as a “trend,” the need to train future AI professionals and the possibility of experimenting with complex prompts drove sustained engagement. This trend converges with the results of Sallam et al. (2024) and Villarino (2025), who report that perceived usefulness and the hedonic component are crucial determinants in diverse university contexts.

In terms of technical facilitators, ChatGPT's response speed, multi-platform accessibility, and context memory have been characterized as significant advantages that allow teachers to reduce their operational load and focus on conceptual content. These findings reflect the studies by Jürgensmeier and Skiera (2024), who demonstrated that generative models can offer scalable and accurate feedback, and Villarino (2025), who highlights the importance of intuitive interfaces for adoption in resource-constrained environments.

However, the technical knowledge gap for advanced uses, such as API integration or result validation, remains a key challenge. Among the main barriers, the limited reliability of ChatGPT, reflected in “hallucinations” or plausible but erroneous responses, and the absence

of clear institutional protocols, emerge as fundamental obstacles. Interviewees identified the need to constantly verify the information provided by ChatGPT, which aligns with the warnings of Espinoza Vidaurre et al. (2024) and Sun et al. (2024) about the risks of overconfidence and the erosion of academic integrity.

Finally, the impact on teaching translates into significant operational savings, reducing the time needed to create material in LaTeX from eight or nine hours to ten minutes, for example, and the urgent need to redesign assessments to maintain academic integrity. Several interviewees stated that literal questions should be replaced by tasks that require critical thinking and argumentation, in line with the recommendations of Acosta-Enríquez et al. (2024) and Fitzek and Bârgăoanu (2025) to promote process-centered rubrics and collaborative projects. Taken together, these results suggest the need for clear policies, teacher training in prompt engineering, and follow-up studies that longitudinally assess the pedagogical and ethical impact of AI in the Chilean and Latin American university environment.

CONCLUSIONS

This qualitative study shows that the adoption of ChatGPT by Chilean university academics responds to a combination of motivations: initial curiosity encouraged by the media boom, the perception of its usefulness in the digitization of their disciplines, and the hedonistic component linked to amazement at its generative capabilities. While operational advantages, such as the drastic reduction in time spent on routine tasks of creating teaching materials and code feedback, are highly valued, barriers such as the limited reliability of responses, the lack of institutional protocols, and gaps in technical and methodological knowledge are also identified. These findings highlight the need for clear policies, teacher training in prompt engineering, and assessments focused on critical thinking.

Among the main limitations are the size and composition of the sample, partial disciplinary and geographical coverage, the exclusive focus on the teacher's perspective, and the self-reported nature of the data, as well as the collection at an early stage of ChatGPT adoption.

These conditions limit the generalization of the findings and open up research opportunities that expand the sample, incorporate other actors, combine methodologies, and conduct longitudinal follow-ups.

Only through a coordinated institutional approach that reduces heterogeneity of use and promotes innovative assessment methodologies will it be possible to fully leverage the benefits of AI in higher education, ensuring quality and academic accountability.

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