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Using ChatGPT in an Instructional Design Assignment: A Study of Students' Perceptions Based on the Model of Situated Acceptance

Utiliser ChatGPT dans un travail de conception pédagogique : une étude des perceptions des étudiants basée sur le modèle de l'acceptation située

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Abstract

This article focuses on the integration of generative artificial intelligence in higher education, specifically in the form of the ChatGPT chatbot. It explores how the prescribed use of ChatGPT in an educational setting influences students' acceptance of this technology. Based on Bobillier Chaumon's approach of "situated acceptance" (2016) adapted to the learning context, the article analyzes technological acceptance across four dimensions: individual, interpersonal, organizational, and transpersonal. The chosen methodology is qualitative, analyzing 31 reflective accounts from students who experimented with ChatGPT during a specific educational activity conducted from December 2023 to January 2024. The results reveal varied student perceptions, emphasizing the importance of maintaining the students' active engagement and critical thinking about emerging technologies in order to maximize the educational potential of these tools while managing the challenges they present.

Keywords

Generative artificial intelligence (GenAI); artificial intelligence (AI); generative AI; situated acceptance; qualitative research; higher education

Résumé

Cet article porte sur l'intégration de l'intelligence artificielle générative, et plus particulièrement du chatbot ChatGPT, dans l'enseignement supérieur. Il explore comment l'usage prescrit de ChatGPT dans un cadre pédagogique influence l'acceptation des étudiants vis-à-vis de cette technologie. S'appuyant sur l'approche de l'« acceptation située » de Bobillier Chaumon (2016),

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ajustée au contexte d'apprentissage, l'article analyse l'acceptation technologique à travers quatre dimensions : individuelle, interpersonnelle, organisationnelle et transpersonnelle. La méthodologie adoptée est qualitative, analysant 31 comptes-rendus réflexifs d'étudiants ayant expérimenté ChatGPT lors d'une activité pédagogique conduite entre décembre 2023 et janvier 2024. Les résultats montrent des perceptions variées des étudiants. Ils soulignent l'importance de maintenir l'engagement actif et l'esprit critique des étudiants face aux technologies émergentes, afin de maximiser leur potentiel éducatif tout en gérant les défis qu'elles présentent.

Mots-clés

Intelligence artificielle générative (IAg); intelligence artificielle (IA); IA générative; acceptation située; recherche qualitative; enseignement supérieur

Introduction

This research paper examines educational technologies in higher education in the age of generative AI. The advanced algorithmic systems of generative AI, trained using deep learning processes, are designed to generate digital content (text, images, sounds, etc.) based on the modelling of existing data distributions. Generative AI has a vast array of applications, from image generation with tools like DALL-E, to music creation via systems like Jukebox, to virtual assistants and intelligent chatbots that facilitate increasingly sophisticated human-machine interactions.

At the heart of this revolution, ChatGPT has rapidly established itself as the hallmark of progress for generative AI capabilities. With its free launch to the general public in November 2022, ChatGPT not only captured the attention of over 180 million monthly users, but also crossed the 100 million weekly active user (WAU) threshold in just one year (Duarte, 2025), establishing itself as a mainstay in the next-generation chatbot sector. This complex language model stands out for its ability to generate text and code, as well as narratives, poems, and other forms of content, in a fluid and subtle way, and in most languages. Based on transformer architecture, a major innovation in the field of machine learning introduced by Vaswani et al. (2017), ChatGPT processes natural language in a cogent and contextually appropriate way. Thanks to its ongoing training on an extremely vast corpus of text, it has acquired the ability to adopt an impressive variety of linguistic styles and formats.

Interaction with ChatGPT takes place via a conversational interface that allows users to submit text queries, known as prompts, to which the system responds. It analyzes the prompt content, parses the context, and generates responses based on the information and linguistic structures it has assimilated during training. This response generation mechanism operates in real time, offering a fluid, dynamic interaction that simulates a conversation with a human.

Since becoming available to the general public, ChatGPT has aroused both enthusiasm and hesitancy in higher education. Although scientific work and field studies are still relatively few in number, they are already highlighting both the promise and the challenges of integrating this technology into teaching practices. While calling for further reflection on the responsible and ethical use of generative AI, early work highlights its potential to enrich the educational experience (Baidoo-Anu & Owusu Ansah, 2023; Cotton et al., 2023; Farrelly & Baker, 2023; Gašević et al., 2023; García-Peñalvo et al., 2024). UNESCO has even published a guide outlining the various ways that ChatGPT can be of use in higher education, underlining its pedagogical potential (Miao & Holmes, 2023).

The central issue, then, is not so much whether these technologies can support teaching and learning, but rather how to integrate them in ways that maximize the benefits while minimizing the drawbacks and risks noted in the literature.

With this in mind, the general aim of the current paper is to contribute to a better understanding of the emerging issues linked to the rollout of this type of technology in learning activities in higher education.

More specifically, the study aims to report on students' perceptions of the use of ChatGPT within a directed learning activity where the use of this conversational chatbot is required.

We first present background information on the use of generative AI by students in higher education. Then, we develop the theoretical framework, moving from the notion of technology acceptability to the more focused one of situated acceptance, and its adaptation to a learning context. This reflection leads us to the heart of our research: to what extent does the use of generative AI, in the form of ChatGPT, in a prescribed educational activity affect student acceptance of this technology? In our exploratory study, we opted for a qualitative approach, aimed at enriching our understanding of the effect of technological innovations on learning. The paper details the main findings, opening with a discussion that puts these into perspective within the current higher education landscape.

Background Information

Some recent work reveals a trend toward increasing adoption of generative AI tools, highlighting their notable influence on student learning methods in higher education (Chan & Hu, 2023). A study conducted by KPMG in Canada (2024) revealed that 59% of the 423 Canadian students surveyed used generative AI tools to complete their schoolwork. The most common uses included generating ideas (46%); finding information (41%); editing or revising assignments (38%); summarizing information from publicly available sources (36%); writing essays or reports (32%); and taking tests or exams (24%). However, 65% report feeling like they are cheating when using these tools, and 63% are afraid of being penalized by their instructors or institutions for using AI without disclosure. Moreover, 82% of students have admitted to presenting AI-generated content as their own original work.

Similar trends can be observed in higher education in France, where a survey carried out by the Institut Le Sphinx and Compilatio (2023) states that 55% of the 4,443 students surveyed report using generative AI tools, at least occasionally, in the context of their studies. The main reasons for using these technologies are to deepen their understanding of academic subjects (51%); improve syntax and reformulate content (28%); complete assignments by copying and pasting automatically generated texts (7%); and translate texts (6%). While 65% of students consider the use of AI to complete assignments or exams to be a form of cheating, about 28% feel that it is acceptable to use AI to write parts of their assignments. According to the study, the use of generative AI by students is likely to increase: a total of 6% of non-users plan to start using these tools in the future, while 19% of current users plan to increase their use.

Considering students' enthusiasm for generative AI tools, a deeper understanding of their experience and perception of these technologies is essential to gain a better understanding of how the tools fit into their learning trajectories.

Theorical approach

This section explores the acceptability of technologies in education, from the perception of their usefulness to the intention to adopt them, differentiating practical acceptability (functionality and ease of use) from social acceptability (perceptions and attitudes). The focus is on the actual user experience and the integration of technology in specific contexts – here, in education – and thereby requires a multidimensional understanding.

Acceptability of Technologies: From Practical Acceptability to Situated Acceptance

From a broader perspective, acceptability refers to the way in which a person perceives the usefulness and value of a system or technology, and whether or not they intend to adopt it (Davis, 1989). This concept has become more complex with the evolution of research, leading to debates on the subtleties differentiating acceptability and acceptance. According to Nielsen (1994), the overall acceptability of a system is based on two elements: practical acceptability and social acceptability. The former concerns the alignment between the system's functional aspects and its ease of use, while the latter relates to users' perceptions and attitudes, taking into account the social constraints and norms that can influence the decision to adopt or discard a specific technology. For Bobillier Chaumon and Dubois (2009), the technological adoption process is part of a continuum forming a trajectory from the design phase of a technology to its use in a given situation. This process begins with prior, i.e. *a priori*, perceptions of a system's acceptability and continues through to actual acceptance of the technology, thus marking technological adoption as a gradual, multifaceted phenomenon. In this approach, acceptability refers to a person's prior perceptions of a technology, while acceptance focuses on the person's experience of using the technological tool at the time of or following its introduction.

Bobillier Chaumon (2016) proposes a classification where practical acceptability (1) comes into play in the design phase, social acceptability (2) during the implementation phase, and situated acceptance (3) during use and appropriation, suggesting a continuous interaction between these different phases and approaches (Figure 1).

Practical acceptability focuses on the design of ergonomic features to improve a system's utility, accessibility, and usability, thus meeting the specific needs of users. This approach, supported by models such as Nielsen's (1994) or the P3 model of Dillon and Morris (1999), is based on criteria such as cost, reliability, and compatibility, while emphasizing utility and usability. The continued adoption of a technology is strongly influenced by its perceived ease of use and effectiveness (Venkatesh et al., 2003), underlining the importance of practical acceptability in the user experience (Barcenilla & Bastien, 2009).

Social acceptability aims to predict the use of a system based on perceptions and intention of use. In other words, it refers to the preconditions that make a technology socially acceptable, focusing on subjective perceptions prior to actual use. Despite the prevalence of models such as TAM (Davis, 1989; Venkatesh & Bala, 2008; Venkatesh & Davis, 2000), UTAUT (Venkatesh et al., 2003, 2012), or their composite variants in the literature, these frameworks have been criticized for their lack of contextualization and oversimplification from a socio-technical perspective (Shachak et al., 2019). Some authors also point to the lack of attention paid by these models to user feedback about their acceptance of technologies (Brangier et al., 2010; Bobillier Chaumon, 2016).

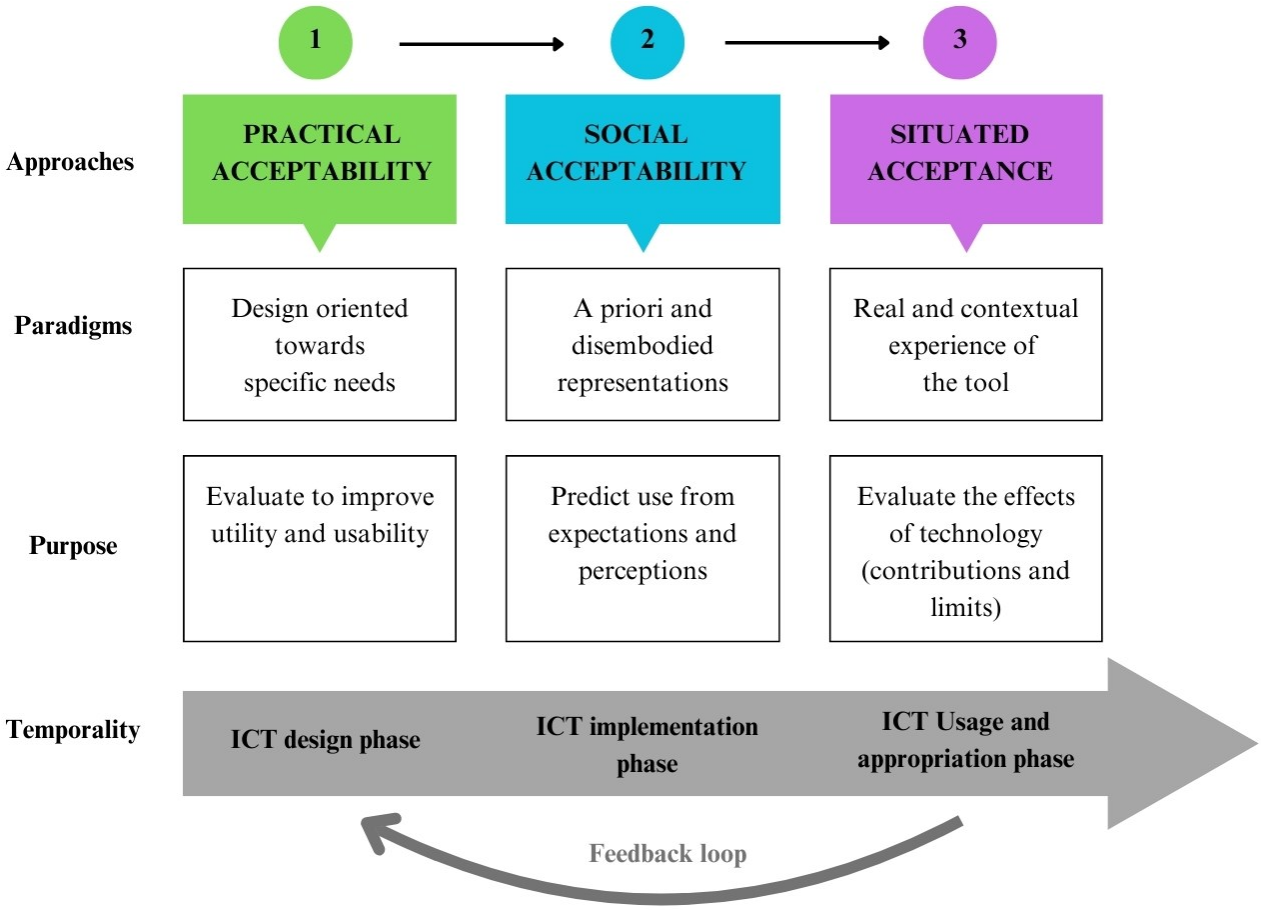

Figure 1

Articulation of Acceptance Along a Usage Trajectory (Adapted from Bobillier Chaumon, 2016, Figure 1)

The situated acceptance approach (Bobillier Chaumon, 2016, 2021) differs from the two previous approaches in its focus on the user's experience in his or her actual context as a means of evaluating the system's effects on the individual and his or her activity. This perspective focuses on acceptance as a contextualized evaluation process, where the system is assessed in terms of its usefulness and limitations in the setting of a specific activity. It explores what is enabled, compelled, prevented, or now made impossible by the system. It aims to understand how the use of a system affects individual and collective practices and how it influences organizational and interpersonal dynamics.

We believe that this approach, although rooted in the field of workplace psychology, offers interesting perspectives in the field of education and training, particularly with regard to the use of emerging technologies in a learning context. It is the latter approach that we draw upon in this research paper.

Situated Acceptance Adapted to a Learning Context

For our research project, we have chosen to adapt the four dimensions of situated acceptance proposed by Bobillier Chaumon (2016, 2021) – individual, interpersonal, organizational, and transpersonal – to the learning context. This adaptation enables us to explore how these dimensions influence students' acceptance and use of technologies.

The individual dimension refers to the impact of technology on the learner, in terms of its potential to increase or reduce workload. It integrates the notions of the cognitive and emotional cost associated with the use of technology in learning.

The interpersonal dimension refers to group activities and dynamics during a learning activity involving a number of learners.

The organizational/impersonal dimension refers to the way in which technology affects or guides the learner's actions and initiatives. It integrates notions of control and autonomy in learning.

The transpersonal dimension refers to the way in which technology enables learners to value and use their skills and identity. It raises questions about the value and meaning of their learning, the recognition of their skills, the acquisition of practical skills needed for their professional future, and the development of their personal abilities.

Table 1 illustrates the key elements of the four dimensions of situated acceptance that can be identified in a learning context.

Table 1

Key Elements of the Four Dimensions of Situated Acceptance in a Learning Context (Adapted from Bobillier Chaumon, 2016, Table 2)

Dimensions of acceptance	Key elements to identify
Personal dimension	– Perception of benefits and losses from a cognitive point of view (workload, creativity, etc.). – Emotional perception (pleasure, displeasure, anxiety, etc.).
Interpersonal dimension	– Perception of interaction with generative AI and its impact on peer relationships in a group activity.
Organizational / impersonal dimension	– Perception of the control exercised by and with generative AI (adapting to new methods, etc.). – Perception of the reliability of generative AI (quality, relevance of information delivered).
Transpersonal dimension	– Perception of the effects of generative AI on personal responsibility (ethics, value, the importance of one's own knowledge over that of technology, etc.). – Perceptions of the potential of generative AI to prepare students for future challenges in their field of study or profession.

Research Question

Students' perceptions of the integration of generative AI into their educational path are key to understanding their acceptance of, and commitment to, this innovative technology.

To our knowledge, empirical studies that have investigated students' attitudes to emerging technologies, especially in the specific context of their direct experience and learning environment, remain limited. This is particularly true for generative AI technologies such as ChatGPT.

Within this framework, our research paper proposes to explore the following question: To what extent does the use of ChatGPT generative AI in a prescribed educational activity affect student acceptance of this technology?

Methodology

The study presented here adopts a qualitative, comprehensive methodological approach, focusing on the students' experience. This section explains the context and method of data collection. It then details the data analysis approach that was used.

Context and Data Collection

This research paper examines the experience of students enrolled in a second-cycle (post-graduate) degree program at a major university in northern France. This level corresponds to a master's degree in Canada. These students, returning to higher education, are enrolled in an 18-month distance learning course in educational engineering in preparation for careers in instructional design, with a strong emphasis on multimodal learning environments. The average age is 35: the youngest is 28 and the oldest, 54.

The study focuses on a teaching unit (TU) about instructional design for e-learning, and more specifically on one of the teaching sequences in this TU. This sequence, titled "Generative Artificial Intelligence for Instructional Design," took place over four weeks in December 2023 and January 2024. The objective was to introduce students to the principles of generative AI and its use in designing educational scenarios. The sequence was structured as follows:

1. Introduction and Training in Generative AI. Students had access to an educational resource explaining how generative AI works, how to formulate prompts, and how AI can be used in the context of instructional design.

2. Collaborative Work on an Instructional Scenario. Students were required to design an instructional scenario based on a practical case. The activity involved developing this scenario in two versions:

– **Version 1:** Created without the use of generative AI.

– **Version 2:** Developed with the assistance of ChatGPT (free version, GPT-3.5).

The goal was to apply the fundamental principles of instructional scenario design (defining learning objectives, structuring the learning pathway, and designing learning activities) to compare the two versions and assess the influence of generative AI on the organization and pedagogical quality of the scenario. Conducted as a small-group case study, this task aimed to enable students to apply these principles in a concrete context while critically reflecting on the benefits and limitations of AI in the instructional design process.

Throughout the case study process, the instructor acted as a guide and facilitator, answering students' questions or helping them to overcome any difficulties they had in using the tool.

After the group work, each student wrote a personal analysis of their use of ChatGPT in this activity. This reflective feedback had to include:

– The student's prior experience with generative AI (ChatGPT), specifying their level of familiarity with the tool before the activity.

– The perceived advantages and limitations of using ChatGPT, highlighting the challenges encountered and the tool's impact on the design process, as well as the overall experience.

– A comparison of the ChatGPT-assisted and traditional (i.e., non-AI) instructional design methods, with a justification for the student's preference.

An analysis of this feedback forms the core of this study.

The students who had completed the relevant TU were asked for their consent regarding the analysis of their feedback. Out of 49 students, 31 gave their explicit consent for their reflective accounts to be included in our study. The data was processed with strict adherence to anonymization, in accordance with ethical principles governing scientific research.

Data Analysis

The analysis approach was supported by a topic analysis Miles & Huberman, 1994; Paillé & Mucchielli, 2016), using Nvivo software (v.12) to organize the qualitative data. When examining the corpus of reflective accounts, codes were assigned to units of meaning, i.e. to sentences or short paragraphs from the texts analyzed. Several codes could be assigned to the same unit of meaning, reflecting the multidimensionality of the comments reported in the accounts. Finally, each code grouped extracts with similar connotations together, even if they came from different meaning units. This structuring into topic codes made it possible to gather data relevant to identifying significant trends in how students' perceived the use of ChatGPT as part of their educational activity. An inter-rater analysis was conducted to assess the reliability of the coding process: a second coder analyzed a segment of the accounts and the similarity of the codes applied by the two analysts was calculated. The concordance assessment showed a degree of agreement of 98.6%. The involvement of a second analyst helped minimize the risk of subjective interpretations (Chi, 1997).

Results

Quantitatively, the analysis covered 31 reflective accounts written by 18 female and 13 male students ranging in age from 29 to 51. It should be noted that the male/female ratio reflects that observed among all students enrolled in the program. These accounts totalled almost 25,000 words. During the analysis, 426 extracts were encoded, of which the personal dimension was the most prevalent with 179 encoded extracts. This was closely followed by the organizational dimension, represented by 165 encoded extracts. The transpersonal dimension accounted for 74 extracts. The interpersonal dimension was the least addressed, with only 15 extracts encoded; only 8 students mentioned elements relating to it (see Table 2).

Table 2

Breakdown of Encoded Extracts by Analysis Dimension

Dimensions of acceptance	Number of reflective accounts	Number of encoded references
Personal dimension	31	179
Interpersonal dimension	8	15
Organizational / impersonal dimension	31	165
Transpersonal dimension	31	74

Of the 31 students, a total of 16 identified themselves as beginners in the use of generative AI and ChatGPT, while 12 claimed to have reached an intermediate level. Only three students said that they had mastered the tool and had been using it frequently for a number of months.

Qualitatively, within each of these dimensions, the item markers for using ChatGPT to complete the educational activity are highlighted by the students.

Personal Dimension

The data underscore the personal dimension of ChatGPT use, which can be broken down into several key elements: the stimulation of creativity; help in structuring educational content; editing support; productivity gains; and the emotional experience associated with its use.

ChatGPT is valued as a catalyst for creativity, helping to overcome the "fear of the blank page," according to Alexandre. It provides an initial framework for developing projects, boosting creativity with its diverse perspectives. David emphasizes that it "leaves a lot of room for creativity," while Juliette appreciates the "varied responses" that generate numerous ideas. Samira also uses ChatGPT to initiate deeper reflection, making the tool an essential starting point in the creative process.

In structuring teaching scenarios, ChatGPT has also helped to provide an initial working basis, according to Marion. Its ability to "formulate objectives aligned with Bloom's taxonomy, if specified, and to design assessments in the form of MCQs" is praised by Alicia. Corinne uses it to search for concepts and definitions, while Laura and Florence value its capacity to encourage deep and critical thinking. ChatGPT enables the development of a critical perspective by prompting users to master and question the discussed notions, thereby offering an opportunity to deepen research and challenge the generated propositions.

When it comes to writing, ChatGPT is also recognized for its ability to rephrase texts, enhancing their clarity, coherence, and precision. Marion attests to its valuable assistance: "it helps me considerably in rephrasing sentences." Boris emphasizes the importance of syntax in "refining written expression." Nadia and Romane note the positive impact of AI on clarity of expression. ChatGPT also demonstrates versatility in various writing tasks. Juliette uses the tool to "write sentences from keywords" and "improve the final drafting of certain documents," showcasing its ability to effectively assist in the writing process.

In terms of productivity, ChatGPT offers an alternative to tedious research by providing already-formatted knowledge elements, as David reports. Cédric states that it transforms "the often long and difficult content creation into a process of review and improvement." Noa highlights "the amazing ease and efficiency of ChatGPT" in accelerating training design. However, sorting through varied responses requires time, as noted by Sacha, Ingrid, and Myriam, who report major challenges in managing massive amounts of information, emphasizing "the complexity of sorting and organizing the information to make it coherent.

Finally, an analysis of the reflective accounts reveals that interactions with ChatGPT are highly emotionally charged. Far from being neutral, working with this conversational agent gives rise to polarized feelings, especially for students new to generative AI. Beginners in generative AI, like Cédric, are initially captivated by its ability to generate coherent dialogues, expressing amazement: "I was fascinated, it was stunning to see that." Paul, however, admits to having overly high expectations: "At first, I thought ChatGPT could do everything for me." Over time, realizing the tool's limitations leads to disillusionment, and sometimes anger, as Laura describes: "The more I used it, the more I realized its limitations." Despite this, experienced users find the tool user-friendly and prefer its "warmth" compared to the "coldness" of traditional search engines.

Interpersonal Dimension

Students said little about the impact of ChatGPT on group dynamics, i.e. the interpersonal dimension of situated acceptance (Bobillier Chaumon, 2016, 2021), this topic being highlighted in

only eight reflective accounts. One possible explanation is that the students have been collaborating regularly in stable groups since the start of their training program and therefore did not perceive any significant differences in group dynamics depending on whether or not they were using ChatGPT.

However, among those who did address this element, all pointed to positive impacts. All recognized ChatGPT's usefulness in rapidly generating ideas and background information that could feed into discussions. For example, Florence reports that ChatGPT served "to initiate discussions" by encouraging members of her group "to think collectively about the prompts to be written (...) and the answers" provided by the tool.

Similarly, Victoria explains that sharing individual results obtained with ChatGPT facilitated group decision-making and led to more effective collaboration. Alexandre, for his part, mentions "saving time in launching group work" and "freer, more open participation," with each member first interacting alone with ChatGPT before discussing proposals as a group. In his opinion, "there was less fear of being judged, because in the end we weren't the ones who proposed the content."

Organizational/Impersonal Dimension

The results highlight a broad consensus on the importance of students controlling and directing interactions with ChatGPT; otherwise responses lack relevance, which falls under the organizational/impersonal dimension of situated acceptance (Bobillier Chaumon, 2016, 2021). Ingrid stresses the need to clarify one's objectives: "You need to have a good idea of what you want to achieve, otherwise you get nowhere." Alexandre notes that effective dialogue with the tool involves "reformulating [your] questions and being more precise" – a reflective approach that he also finds enriching as part of his learning process. Nadia sums up this challenge as that of "directing the AI precisely with clear instructions," like an "elephant [she] has to corral." Florence believes that this requirement for precision "enables us to highlight the fuzzy areas [of thought]." Romane points out that "obtaining relevant results" requires "knowing the subject on which the AI is being questioned."

Students like Sacha also point to the loss of control associated with using the tool: "I wasted a lot of time chatting with ChatGPT without necessarily making any progress on the work I was trying to do, or even moving away from it." This counterproductive effect, according to Sacha, occurred when he allowed himself to become absorbed in his conversations with the chatbot instead of remaining focused on the task at hand. The need to understand how ChatGPT works was also emphasized by one and all. Nelly points out that "you have to change your method (...), get into a certain process, a certain logic, and force yourself to work in well-marked stages." Myriam explains that "I had to [...] understand how the chatbot 'reasoned' in order to formulate relevant prompts and obtain satisfactory responses."

Transpersonal Dimension

Most students expressed their intention to continue using ChatGPT in the future. This recurrence reveals a wide range of perspectives among users. Some, like Myriam, express a clear preference for the tool, praising "its ability to provide quick and efficient access to summarized knowledge." Others, such as Ingrid and Laura, are more reluctant, preferring traditional methods for the time being. However, both recognize the need to train with ChatGPT to get the most out of it and to be competitive in their future professional environments. Nelly and Victoria envisage ChatGPT as a permanent professional tool, seeing this conversational assistant and traditional approaches as

complementary in the creation of teaching scenarios. For Noa, ChatGPT represents "a partner that it would be a shame and a pity to do without." Like most students, he advocates a hybrid approach combining the strengths of both methods to optimize the instructional design process.

However, the use of ChatGPT also raises concerns about the erosion of critical thinking and in-depth analysis. David, for example, has noticed a "tendency to lower [his] vigilance in [his] capacity for analysis and critical thinking" caused by "the magic of technology that rolls out logical and meaningful sentences at a rapid clip." Mathieu, for his part, identifies a "perverse effect" that "almost played tricks on him" by "having weighed on [his] personal involvement in the in-depth exploration of the subject to be covered." The student indicated that he had initially relied excessively on the technology to generate questions and ideas for him. This dependence entails risks in terms of learning and the long-term acquisition of critical skills, as some students have pointed out.

In addition, the recurrence of the term "ethical" in the feedback raises some notable concerns. All the students remarked on the lack of transparency with regard to sources, with ChatGPT (in the version used) not citing its references, which "limits its reliability" as Sacha put it. Alicia highlights "the issue of plagiarism and copyright linked to the absence of source citation."

Another negative point raised concerns what Paul calls ChatGPT's "lack of humanity and standardization of responses." Boris criticizes its "lack of real awareness." Florence underscores its "inability to respond to a human need due to a lack of specific expertise, empathy, and emotion," qualities crucial in the training context where "understanding learners' specific needs and empathy are essential." Sacha also points to the tool's "emotional neutrality" as a limitation in interaction. Finally, Corinne points to a standardization effect, asserting that "the profession will always need human reflection, with all the richness and subtlety it can bring, which is beyond the reach of a tool." She adds, "It made me realize that without in-depth knowledge of the subject, my questions remain general." She notes the importance of originality in teaching scenarios in a professional setting.

Alexandre, Florence, Laura, Marion, and Samira insist on the need for human supervision and analysis to ensure the cogency, adaptability, and originality of the educational content created with the help of ChatGPT.

Discussion

The results of this exploratory study highlight the many and varied impacts and issues raised by the use of ChatGPT generative AI in a prescribed educational activity and its acceptance by students (see Figure 2).

With regard to the personal dimension, the results of the study corroborate those of other work showing that generative AI can have a positive impact on users' individual creativity (Crittenden et al., 2019; Popenici & Ker, 2017; Toma & Yánez-Pérez, 2024). The strong potential for fascination, creativity stimulation, and other strengths identified in the study, such as the writing support or productivity gains offered by generative AI, represent an interesting opportunity in terms of student motivation and engagement. This stimulating effect of ChatGPT reported in the study is also in line with observations on the ability of generative AI to facilitate idea generation, particularly for less-creative people (Doshi & Hauser, 2024; Shaer et al., 2024). However, the question arises as to the informational skills required to take advantage of the abundance of content

generated by ChatGPT. As our results underline, managing this cognitive overload requires the sorting, analysis, and critical thinking skills essential in the age of Big Data.

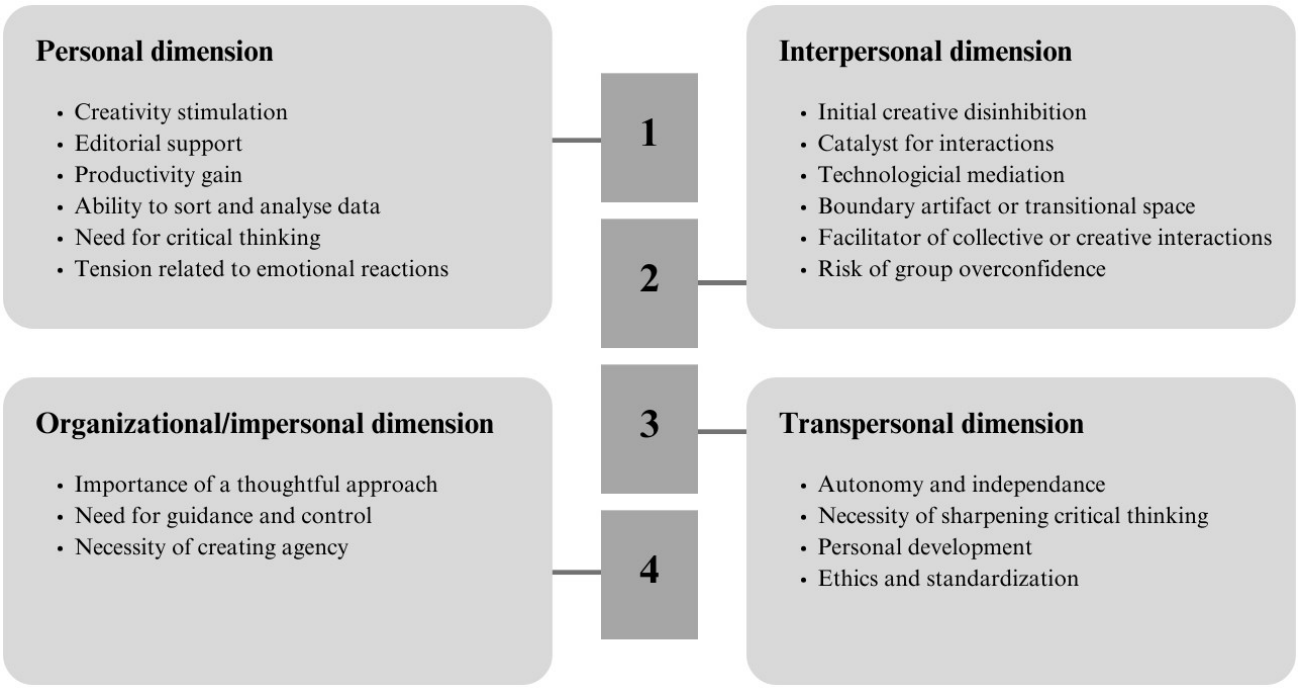

Figure 2
Dimensions of Situated Acceptance Model Affected by the use of ChatGPT Generative AI

Furthermore, the contrasting emotional reactions reported in the study, varying from fascination to inflated expectations and frustration, highlight the tensions inherent in the human-machine relationship. These reactions can be interpreted in light of the concept of anthropomorphizing (Goudey & Bonnin, 2016) or psychological anthropomorphism (Thellman et al., 2022). In essence, anthropomorphizing a non-human object involves attributing typically human mental states (intentions, emotions) to it (Epley et al., 2008; Waytz et al., 2014). This phenomenon occurs when human characteristics are perceived in certain aspects of an artifact's behaviour or appearance (Guthrie, 1997), as is the case with ChatGPT's linguistic fluency. However, this illusion of intelligence leads to unrealistic expectations which, when unfulfilled, provoke a sense of frustration akin to the "uncanny valley" effect described by the Japanese roboticist Mori (1970/2012). Indeed, the more intelligent an artifact seems, the more shocking its limitations appear, as they contradict anthropomorphic expectations. Thus, when designing educational activities, the risk of developing unrealistic expectations and a relationship of dependency (Zhou & Zhang, 2024) must be taken into account. 'This makes it essential to properly frame the use of the tool by clearly presenting its capabilities and limitations, thereby avoiding frustration and preserving students' trust in technology.

With respect to the interpersonal dimension, the use of ChatGPT elicits a form of initial creative disinhibition within certain groups, before the pooling and debating of ideas within the collective. This disinhibiting effect is in line with the work of Nunamaker et al. (1991) on group decision-support systems, showing that technological mediation reduces the paralyzing effects of evaluative pressure and facilitates the expression of ideas. ChatGPT plays the role of a boundary artifact or transitional space, where shared meanings are developed from individual representations. This kind of object or space, flexible enough to adapt to different contexts, facilitates collaboration and

the negotiation of meanings between or within communities of practice. ChatGPT would play this interface role, stimulating creative discussion between students in pursuit of a common goal. By acting as a catalyst for discussion and exchange, a generative AI such as ChatGPT could be of interest, particularly in a distance or hybrid learning context, where group activities are increasingly popular and where, in this context, the co-construction of knowledge through dialogue takes on a fundamental character (Proust-Androwkha, 2022; Proust-Androwkha & Jézégou, 2019). However, a risk of group overconfidence in ChatGPT proposals can be raised, recalling the phenomenon of groupthink described by Janis (1972). By delegating too much of the thinking to the tool, the group could become over-indulgent by not sufficiently examining alternatives.

At the organizational level, the use of ChatGPT in instructor-prescribed learning activities highlights the importance of a thoughtful approach to framing and controlling interactions between students and the technology. This concern echoes Bobillier Chaumon's (2003) reflections on the need to create compatibility between the logic of use among users, in this case students, and the logic behind the design of technical artifacts. Educational activities that take advantage of ChatGPT need to be designed in such a way as to enrich the learning experience while ensuring that students are actors in their learning rather than passively guided by artificial intelligence.

As for the transpersonal level, the concern that students might allow themselves to be "recruited" by ChatGPT's agency echoes Cahour and Lancry's (2011) warnings about the loss of control that can occur when tasks usually performed by humans are entrusted to a machine. Indeed, automation increases the agency of technology while reducing that of users. This can diminish the users' sense of responsibility and their ability to act critically and autonomously (Nyholm, 2018; Pickering et al., 2017). This risk is particularly acute in the realm of education, where over-dependence on the tool could, at a transpersonal level, undermine students' ability to act, particularly in terms of their ability to think critically and independently. However, the opportunity to sharpen one's critical thinking skills thanks to ChatGPT, noted by other students in the study, shows that the real impact depends greatly on usage. Faced with the limits of ChatGPT (ethics, standardization, and other issues), most students envisage a combined approach to human and artificial intelligence. This hybrid strategy can be seen as a form of appropriation and positive hijacking of the technology, a key condition for the successful instrumental genesis of ChatGPT and for the tool's genuine integration into prevailing practices (Rabardel & Béguin, 2005).

Instructor's Critical Reflection

One of the key findings from this experience concerns the level of guidance provided. While students demonstrated a degree of autonomy in their appropriation of the tool, several tensions emerged, particularly regarding overly high expectations of AI or, conversely, a form of distrust that could limit its pedagogical potential. These discrepancies highlight the need for more explicit pedagogical framing before the activity. In a future iteration of the activity, the instructor intends to enhance the preparatory phase by introducing a collective discussion of the potential and limitations of AI to mitigate the dual illusion of omnipotence and algorithmic objectivity. This awareness phase, inspired by critical digital literacy approaches (Rosenberg, 2023), would help embed the use of ChatGPT within a reflective learning process from the outset.

Another critical point raised by the instructor concerns the ethical dimension of generative AI use. The results indicate that students identified certain ethical limitations of the tool, such as the lack of source traceability and the standardization of responses. However, these concerns remained implicit at times and did not always lead to a critical reassessment of ChatGPT-generated outputs. In response, the instructor plans to introduce a workshop-based educational activity that

incorporates a critical reflection approach to AI-generated responses. For instance, students could be invited to evaluate the relevance of AI-generated answers by comparing them to traditional human sources (academic and professional sources) or by identifying potential biases. This approach would help develop students' information literacy skills and prevent an overly intuitive or uncritical use of the tool.

Finally, another major element highlighted by this experience is the impact of ChatGPT on students' cognitive engagement. While the tool facilitated access to knowledge and idea structuring, it also led some students to adopt a more passive, receptive stance—simply accepting AI suggestions without questioning them. To counteract this tendency, the instructor plans to integrate metacognitive prompts in the next session to encourage a more active appropriation of the tool and a deeper reflection on AI use. Students will be required to explicitly justify why they chose to retain or discard specific AI-generated suggestions and to analyze how these suggestions influenced their reasoning.

Limitations of the Study, Methodological Reflection, and Research Perspectives

Although this qualitative research paper sheds apposite light on the situated acceptance of ChatGPT among students, a few limitations should be highlighted. On one hand, the results are based on a relatively small participant sample, which limits the potential for generalization. On the other, the student debriefings were conducted in a pedagogical setting, with their instructors included among the researchers. This may have introduced a social desirability bias, leading participants to overestimate certain elements in their accounts. Finally, the fact that the study focused specifically on a writing activity was also a limitation in terms of the comprehensiveness of perceptions. Further research, with protocols controlling for these potential biases, would be needed to consolidate these initial results.

These limitations also highlight the need for methodological reflection on the use of Bobillier Chaumon's model for analyzing situated acceptance of AI in educational contexts. While this theoretical framework provided a structured approach to analyzing the verbatim responses, its use raised categorization challenges, particularly due to overlapping dimensions within the model. Some verbatim statements corresponded to more than one dimension, requiring a flexible approach to code attribution. For example, when a student mentioned time savings, this perception fell under both an individual dimension (related to perceived efficiency) and an organizational dimension (concerning work structuring). This overlap underscores the need for a more refined structuring of the model's indicators to make it work better in educational contexts.

Another key question concerns the relevance of the situated acceptance model in a learning context. This model focuses on the concrete effects of a tool on individuals' activities, their perceptions, and their strategic adjustments. Even for students who are new to GenAI, the dynamics reported in our study fully align with a situated acceptance framework, as long as the tool is used in a real context—that is, within an activity with concrete pedagogical stakes and where the use of a tool is mandated. This contextual and dynamic perspective provides deeper insights into the diversity of student experiences. In the study, some students quickly perceived ChatGPT as a facilitating tool, integrating it into their work strategies without significant questioning. Others, in contrast, expressed initial skepticism, voicing concerns about the tool's reliability and ethical implications. Finally, an intermediate group gradually adjusted their use, incorporating AI into a hybrid approach that combined human and artificial intelligence. This diversity highlights the importance of a contextual and dynamic analysis of appropriation, one that considers adjustments, resistance, and the transformation of practices in a learning environment.

Conclusion

The integration of generative AI in education presents undeniable pedagogical opportunities but also raises challenges, particularly regarding critical thinking and student autonomy. A well-thought-out integration of these tools requires guidance that promotes a balanced and critical use, where AI does not replace human reasoning but rather supports and stimulates it. In this context, teachers play a central role in framing AI use, preventing an excessive delegation of thinking, and encouraging students to adopt an active stance toward AI-generated knowledge.

Building on this research, several avenues for further investigation emerge to deepen our understanding of how generative AI is appropriated in educational contexts. First, we aim to refine the application of Bobillier Chaumon's situated acceptance model to education. Expanding this framework could involve conducting a broader assessment of AI usage and perceptions, enriched by qualitative approaches to identify usage profiles, emerging tensions, and adaptive strategies in response to the opportunities and constraints of these technologies.

Another promising research direction concerns the interpersonal dimension of generative AI use, which remains underexplored in our study. We seek to understand how AI transforms teamwork, knowledge co-construction, and peer interactions, as well as the broader dynamics of collaboration.

By pursuing these investigations, we can develop a more comprehensive understanding of AI appropriation mechanisms and propose tailored support strategies, ultimately contributing to a more informed and beneficial integration of these tools in higher education.

Notes

Data Availability

The data collected during the research are not available for ethical reasons: the students interviewed were not consulted beforehand to determine whether they would agree to have all of the data they produced shared, rather than only selected excerpts.

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