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# Students' Lived Experiences of Artificial Intelligence: From Intelligent Use to Dependence on ChatGPT for Completing Assignments

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**ABSTRACT**

**Objective:** This study aimed to explore the lived experiences of high school students in Qazvin regarding their interaction with ChatGPT, with particular emphasis on the continuum from intelligent use to dependency.

**Methods**: Adopting a qualitative approach, this research was conducted using Interpretative Phenomenological Analysis (IPA) based on the framework proposed by Smith, Flowers, and Larkin (2022). Participants were purposively selected from upper secondary school students in Qazvin who had at least six months of experience using ChatGPT. Data were collected through in-depth semi-structured interviews with 18 students (9 girls and 9 boys) from different areas of the city. The interviews were analyzed following the six-step IPA procedure.

**Results**: Data analysis resulted in the identification of six superordinate themes and 24 subordinate themes: (1) initial encounter and discovery of capabilities, (2) intelligent use and learning enhancement, (3) transition to dependency and cognitive weakening, (4) lived contradictions and meaning crisis, (5) contextual and moderating factors, and (6) coping and adaptation strategies. The highest frequency of references was related to "lived contradictions and meaning crisis," followed by "intelligent use" and "transition to dependency." The findings revealed that students' experiences with ChatGPT were complex and paradoxical. While students benefited from its capabilities to support learning, they also faced cognitive challenges such as reduced independent thinking, metacognitive laziness, and an illusion of competence.

**Conclusions**: Prohibitive approaches to AI in education are ineffective; instead, a balanced strategy is needed to maximize learning benefits, minimize negative effects, and guide students toward intelligent, responsible use.

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## Introduction

The phenomenon of generative artificial intelligence (GenAI), particularly large language models such as ChatGPT, has become one of the most controversial yet influential transformative forces in global education in less than two years. What initially began as either short-lived excitement or fear of a distant future has now turned into an undeniable reality in the everyday lived experiences of students and learners worldwide. From classrooms to lecture halls, the penetration of these tools has been so rapid and profound that educational systems now find themselves in a difficult and dual position: on the one hand, the unprecedented potential of these technologies to personalize learning, enhance creativity, and expand access to knowledge; on the other hand, the risk of weakening critical thinking, fostering cognitive dependency, and challenging the foundations of academic integrity (Gil-Vera & Quintero López, 2025; Li et al., 2025). This tension has produced a spectrum of lived experiences among learners, ranging from "intelligent use" and "cognitive enhancement" at one end to "dependency" and "metacognitive laziness" at the other (Tijähjanta, 2025).

Recent statistics clearly illustrate the scale of this influence. According to recent research, the percentage of university students using generative AI tools for academic tasks is rapidly increasing, indicating a fundamental shift in the study, research, and content-production habits of the new generation of learners (Chan, 2025). Today's students—many of whom experienced the COVID-19 pandemic and the forced transition to online education—not only are familiar with these tools, but also view the pandemic as a turning point that paved the way for the widespread adoption of artificial intelligence. These students, who consider themselves the "right voices for this conversation," find themselves caught between two worlds: the world of traditional educational expectations and the emerging world of AI-enhanced learning (Shanahan, 2025).

However, this lived experience is neither uniform nor free of contradiction. Numerous studies show that students simultaneously hold deeply ambivalent feelings toward this technology. On the one hand, they regard artificial intelligence as a "productive assistant" and an efficient tool for brainstorming, structuring assignments, and understanding complex concepts, viewing it as a complement to traditional education rather than a replacement for it (Richter & Sudipta, 2025). A study of engineering students revealed that they perceive AI and instructors not as opposing forces but as complementary pieces of their "learning puzzle," attempting to benefit simultaneously from

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the stability of face-to-face instruction and the flexibility of artificial intelligence. On the other hand, these same students clearly express concern about the "negative impact on skills that may potentially be lost," believing that AI use can undermine their analytical abilities (Gil-Vera & Quintero López, 2025). This duality constitutes the core problem of the present study: how can a single tool simultaneously lead to both "intelligent use" and "dependency"? What factors determine where a student falls along this spectrum?

The concept of "intelligent use," or "AI competence," goes beyond mere technical ability to interact with a tool. Researchers argue that genuine competence emerges when students are able to use AI to *enhance* their cognitive abilities rather than simply *replace* them (Richter & Sudipta, 2025). From this perspective, artificial intelligence can support the development of creativity and critical thinking. A study of university students demonstrated that successful learners are not passive consumers, but active and critical users who can carefully evaluate AI outputs, recognize their limitations, and simultaneously maintain intellectual ownership of both the learning process and the final product (Davis-Bieb, 2025). These students use AI to strengthen their problem-solving skills, critical thinking, and self-reflection. For example, researchers have shown that purposeful use of AI can significantly enhance students' higher-order thinking skills (Li et al., 2025). In this model, the student emerges as the leader of their own learning, employing artificial intelligence as a tool for deeper exploration and greater autonomy (Tijähjanta, 2025).

At the opposite end of this spectrum lies the phenomenon of "ChatGPT dependency," which is associated with concepts such as "surface thinking," "cognitive laziness," and the "illusion of competence" (Shanahan, 2025; Green, 2025). Extensive empirical research has shown that frequent and unguided use of artificial intelligence can lead to a systematic erosion of critical thinking abilities. Drawing on his teaching experience, Shanahan (2025) warns that "more than half of the students at my institution used AI to generate sources, provide case studies, and in many cases, to write their assignments." This relationship is not incidental but systematic and measurable. Students learn to trust the polished outputs of AI without developing the necessary skills to critically evaluate their accuracy and validity. Similarly, Green (2025) cautions that AI use often results in work that is "grammatically flawless but ultimately shallow and devoid of deep analytical insight."

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This dependency is rooted in deeper cognitive processes. A study conducted among university students showed that dependency on ChatGPT significantly increases surface-level thinking (Tijähjanta, 2025). Surface thinking refers to a state in which individuals acquire knowledge without deep understanding or the ability to apply it in new contexts. The study concludes that reliance on artificial intelligence does not directly enhance students' ability to complete assignments independently; rather, by weakening reflective and critical thinking processes, it constrains self-regulated learning (Tijähjanta, 2025). This finding aligns closely with the concept of "cognitive laziness" proposed by Shanahan (2025), a condition in which individuals rely on AI to perform cognitive tasks without engaging in the essential processes of thinking themselves.

One of the most dangerous consequences of this dependency is the emergence of an "illusion of competence." Faculty experiences—including that of an instructor who discovered that students had included concepts in their papers that had never been taught—vividly illustrate this phenomenon (Fitzgerald, cited in O'Brien, 2025). By observing high-quality and seemingly intelligent outputs, students come to believe that they themselves have achieved the same level of understanding and ability, when in reality this is not the case. Research shows that students who rely solely on ChatGPT outputs with minimal effort may succeed in earning passing grades, but these grades do not necessarily reflect genuine learning. This is where a deep gap between "performance" and "learning" becomes evident. Traditional educational systems, which are largely designed around evaluating final products (assignments, projects), struggle to detect this gap. Shanahan (2025) warns that "higher education is clearly at a crossroads" and faces the risk of producing a generation of graduates who are skilled at the "performance of learning" but lack "authentic learning."

Within this context, a crisis of trust emerges as another dark dimension of students' lived experiences. Research reveals troubling aspects of this crisis. Students describe a growing cycle of suspicion between themselves and instructors, a distrust that not only poisons the educational environment but also undermines motivation for authentic learning (Chan, 2025). Green (2025) highlights this dilemma by noting that "AI is everywhere… but we have no proof," emphasizing the difficulty of distinguishing academic dishonesty from original work. Students also point to a perceived double standard: while AI use is prohibited for students, instructors simultaneously use the same tools to enhance their own productivity (Velković, 2025).

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Overall, the review of the research literature demonstrates that students' lived experiences with artificial intelligence are complex, multidimensional, and fraught with contradiction. These experiences encompass a wide range of practices, from intelligent applications that enhance cognitive capabilities to excessive dependency that undermines critical thinking (Tijähjanta, 2025). Understanding how these two distinct patterns emerge, identifying the individual, contextual, and educational factors that shape them, and exploring the meanings that students themselves assign to this complex interaction with emerging technologies constitute the central questions of the present study. Given the accelerating pace of AI integration and the existing gap in the literature—particularly regarding the "student voice" as the primary actor in this transformation (Tijähjanta, 2025; Davis-Bieb, 2025)—a phenomenological investigation centered on students' lived experiences is an undeniable necessity for informed policymaking and the design of effective educational interventions in the age of artificial intelligence.

## Material and Methods

The present study adopted a qualitative research approach and was conducted using Interpretative Phenomenological Analysis (IPA) as proposed by Smith, Flowers, and Larkin (2022). IPA is particularly suited to exploring how individuals make sense of significant experiences in their lived worlds and emphasizes both participants' meaning-making and the researcher's interpretative role. Given the study's focus on students' lived experiences of using ChatGPT for academic purposes—specifically the tension between intelligent use and cognitive dependency—this approach was deemed methodologically appropriate.

The target population consisted of upper secondary school students (grades 10–12) in the city of Qazvin during the 2025–2026 academic year. Participants were selected through purposive criterion-based sampling with maximum variation. The primary inclusion criterion was having at least six months of experience using ChatGPT for school-related assignments.

To ensure a broad range of perspectives, diversity was intentionally sought in terms of gender, grade level, field of study, type of school (public/private), geographical area within the city, and level of access to digital technologies. Sampling continued until theoretical saturation was achieved—that is, when no new themes or meanings emerged from additional interviews. The final sample comprised 18 students (9 female and 9 male).

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**Data Collection**

Data were collected through in-depth semi-structured individual interviews, which allowed participants to articulate their experiences in their own words while providing sufficient flexibility for probing emerging meanings. Interviews were conducted in a quiet and comfortable setting and lasted between 45 and 90 minutes. Each interview began with a broad, open-ended prompt: "*Please tell me about the time when you first started using ChatGPT for your school assignments.*"

This opening question was followed by exploratory and probing questions aimed at deepening understanding of participants' experiences, perceptions, emotions, and interpretations related to ChatGPT use, learning processes, autonomy, and perceived consequences. All interviews were conducted after obtaining informed consent from both participants and their parents or legal guardians. With permission, interviews were audio-recorded and transcribed verbatim immediately after completion. In addition, the researcher maintained reflective field notes and analytic memos throughout the data collection process to document initial impressions, emotional responses, and emerging interpretations.

**Data Analysis**

Data analysis followed the six-step IPA procedure outlined by Smith, Flowers, and Larkin (2022): Reading and re-reading each transcript to achieve immersion in the data. Initial noting, including descriptive, linguistic, and conceptual comments. Developing emergent themes by transforming initial notes into concise, psychologically meaningful statements. Searching for connections across emergent themes and organizing them into superordinate themes within each case. Moving to the next case, repeating the analytic process while bracketing prior assumptions as much as possible. Identifying patterns across cases, resulting in a final thematic structure that captured shared meanings while preserving individual nuance. Analysis was iterative and interpretative, involving continuous movement between parts of the text and the whole dataset.

**Trustworthiness**

To ensure the rigor and quality of the findings, the study employed established criteria for trustworthiness in qualitative research: Credibility was enhanced through prolonged engagement with the data, peer debriefing, and member checking, whereby participants reviewed and confirmed the accuracy of the interpretations. Transferability was addressed by providing thick, rich descriptions of the research context, participants, and analytic process.

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Dependability was ensured through detailed documentation of all methodological and analytical steps, creating a transparent audit trail. Confirmability was strengthened by the use of reflexive journaling, which allowed the researcher to critically examine and bracket personal assumptions and potential biases.

**Ethical Considerations**

Ethical approval was obtained prior to data collection. Ethical principles were strictly observed throughout the study, including informed consent, confidentiality, and voluntary participation. Participants were assigned pseudonyms, and identifying information was removed from transcripts. Students were informed of their right to withdraw from the study at any stage without any consequences.

## Results

In this section, the findings derived from the interpretative phenomenological analysis (IPA) of the lived experiences of upper secondary school students in Qazvin regarding their interaction with generative artificial intelligence (ChatGPT) are presented. Data were collected through in-depth semi-structured interviews with 18 students from different districts of Qazvin. Participants were selected using criterion-based purposive sampling with maximum variation.

The data analysis followed the six systematic stages of IPA: reading and re-reading the interview transcripts, initial noting and observational memoing, transforming notes into emergent themes, identifying connections and patterns among emergent themes, analyzing subsequent interviews through repetition of previous steps, and searching for shared patterns and developing the final thematic structure (Smith, Flowers, & Larkin, 2022). Through this rigorous analytic process, six superordinate themes and twenty-four subordinate themes were identified. These themes are presented below in a structured and detailed manner.

**Participant Characteristics**

Prior to presenting the main findings, Table 1 summarizes the demographic characteristics of the 18 participants. To ensure confidentiality and ethical compliance, all names used are pseudonyms. The participants were well balanced in terms of gender (9 females and 9 males), grade level (six students from each grade), field of study, and geographical distribution across the city of Qazvin.

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This diversity facilitated access to a wide range of lived experiences related to AI use in school assignments.

**Final Thematic Structure**

The in-depth and multi-layered analysis of the interview data resulted in the identification of six superordinate themes and twenty-four subordinate themes. Table 2 provides an overview of this hierarchical thematic structure.

**Table 1.** Final Structure of Superordinate and Subordinate Themes Derived from Students' Lived Experiences

| Superordinate Theme | Subordinate Themes |
|---|---|
| Initial Encounter and Discovery of Capabilities | 1-1 Initial curiosity and trial-and-error<br>1-2 Amazement at AI capabilities<br>1-3 Sense of access to an unlimited source<br>1-4 Initial fear of cheating |
| Intelligent Use and Learning Enhancement | 2-1 Facilitating brainstorming and idea generation<br>2-2 Assisting with assignment structuring<br>2-3 Clarifying complex concepts<br>2-4 Saving study time<br>2-5 Personalizing the learning process<br>2-6 Continuous evaluation and feedback |
| Transition to Dependency and Cognitive Erosion | 3-1 Gradual decline in independent thinking<br>3-2 Feeling unable to complete assignments without AI<br>3-3 Metacognitive laziness<br>3-4 Illusion of competence<br>3-5 Reduced creativity and innovation<br>3-6 Surface-level learning |
| Lived Contradictions and Meaning Crisis | 4-1 Emotional ambivalence toward AI<br>4-2 Double standards in the educational system<br>4-3 Anxiety about the future of learning<br>4-4 Mutual distrust with teachers<br>4-5 Conflict between grades and authentic learning |
| Contextual and Moderating Factors | 5-1 Role of family supervision and guidance<br>5-2 Influence of teachers and their pedagogical approaches<br>5-3 Access to technology and infrastructure<br>5-4 Peer influence and school norms |
| Coping and Adaptation Strategies | 6-1 Establishing personal rules for AI use<br>6-2 Integrating traditional and digital learning<br>6-3 Seeking guidance from teachers<br>6-4 Acceptance of reality and adaptation to conditions |

**Superordinate Theme One: Initial Encounter and Discovery of Capabilities**

This superordinate theme describes students' first encounters with ChatGPT and the ways in which they gradually discovered the capabilities of this tool.

**Table 2.** Frequency of Subordinate Themes Related to Initial Encounter and Discovery of Capabilities

| No. | Subordinate Theme | Number of References | Percentage of Total References |
|---|---|---|---|
| 1 | Initial curiosity and trial-and-error | 18 | 29.0% |
| 2 | Amazement at AI capabilities | 17 | 27.4% |
| 3 | Sense of access to an unlimited source | 16 | 25.8% |
| 4 | Initial fear of cheating | 11 | 17.8% |
| Total | | 62 | 100% |

This theme captures students' early experiences of interacting with ChatGPT, characterized by curiosity, excitement, and underlying concern.

Initial Curiosity and Trial-and-Error: Most participants reported that they were introduced to ChatGPT through friends or social media platforms. Their initial engagement was largely

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experimental, aimed at testing the tool's capabilities rather than using it purposefully for learning. Ali explained:

"The first time, my friend told me there was a website that could answer any question. I went and asked a few silly questions just to see if it actually worked."

Amazement at AI Capabilities: Students expressed strong feelings of amazement when they observed the accuracy and sophistication of ChatGPT's responses, particularly when it successfully completed complex assignments. Fatemeh stated:

"We had an essay assignment, and I thought I'd just try it. The essay it wrote was better than many of the ones I write myself."

Sense of Access to an Unlimited Source: With repeated successful experiences, students developed a perception that they had gained access to an endless source of knowledge. Hossein described this feeling as follows:

"It felt like having a private tutor who's always awake, never gets tired, and answers whatever you ask." Initial Fear of Cheating: Alongside excitement, some students reported fear and anxiety about being accused of academic dishonesty. Sara noted:

"At first, I was afraid to use it. I kept thinking, what if the teacher finds out and says I cheated?"

**Superordinate Theme Two: Intelligent Use and Learning Enhancement**

This superordinate theme focuses on the constructive and positive aspects of students' interaction with ChatGPT and illustrates how some students were able to employ the tool intelligently to enhance their learning processes.

This superordinate theme focuses on the positive, constructive, and adaptive aspects of students' interaction with ChatGPT, illustrating how some participants were able to employ this tool intelligently to enhance their learning rather than replace it.

**Table 3.** Frequency of Subordinate Themes Related to Intelligent Use and Learning Enhancement

| No. | Subordinate Theme | Number of References | Percentage of Total References |
|---|---|---|---|
| 1 | Facilitating brainstorming and idea generation | 16 | 19.0% |
| 2 | Assisting with assignment structuring | 15 | 17.9% |
| 3 | Clarifying complex concepts | 18 | 21.4% |
| 4 | Saving study time | 14 | 16.7% |
| 5 | Personalizing the learning process | 12 | 14.3% |
| 6 | Continuous self-evaluation and feedback | 9 | 10.7% |
| Total | | 84 | 100% |

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This theme highlights the ways in which students used ChatGPT as a cognitive support tool to strengthen their learning processes.

Students frequently employed ChatGPT to facilitate brainstorming and idea generation. Typically, they first asked the tool to provide multiple ideas on a given topic and then used those ideas as a foundation for producing their own independent content. In this way, ChatGPT functioned as a thinking catalyst rather than a substitute for thinking.

Another important application was assistance with structuring assignments. Students reported using ChatGPT to generate outlines or organizational frameworks for essays and presentations, which helped them better organize their thoughts before writing or presenting.

Clarifying complex concepts emerged as one of the most frequently referenced benefits. When students did not fully understand explanations provided by teachers or textbooks, they turned to ChatGPT and asked for simpler explanations or alternative examples, enabling deeper comprehension. Saving study time was also perceived as a significant advantage. By delegating time-consuming tasks such as searching for sources or summarizing materials to ChatGPT, students reported having more time available for focused and in-depth study.

ChatGPT additionally enabled personalization of the learning process. Students could ask questions repeatedly, request explanations at different levels, and continue querying until they felt confident in their understanding—an opportunity rarely available in traditional classroom settings. Finally, some participants used ChatGPT for continuous self-assessment and feedback, asking it to generate practice questions after studying or to review and correct their answers.

**Superordinate Theme Three: Transition to Dependency and Cognitive Erosion**

In contrast to intelligent use, this superordinate theme describes the experiences of students who gradually became dependent on ChatGPT, a process that ultimately led to the weakening of their cognitive abilities**.**

**Table 4.** Frequency of Subordinate Themes Related to Transition to Dependency and Cognitive Erosion

| No. | Subordinate Theme | Number of References | Percentage of Total References |
|---|---|---|---|
| 1 | Gradual decline in independent thinking | 16 | 20.5% |
| 2 | Feeling unable to complete assignments without assistance | 14 | 17.9% |
| 3 | Metacognitive laziness | 15 | 19.2% |
| 4 | Illusion of competence | 12 | 15.4% |
| 5 | Reduced creativity and innovation | 11 | 14.1% |
| 6 | Surface-level learning | 10 | 12.9% |
| Total | | 78 | 100% |

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The first sign of dependency was a gradual decline in independent thinking. Instead of attempting to solve problems cognitively, students increasingly turned to ChatGPT as their first response. Ahmad explained:

“Before, when I had a question, I tried to think about it myself. Now the first thing I do is ask ChatGPT.”

As dependency intensified, students experienced a sense of inability to complete assignments without assistance. Hanieh noted:

“If the internet goes down for a day, I literally can’t do my assignments. I get stressed.”

One of the most profound findings was the phenomenon of metacognitive laziness, in which students not only avoided thinking about the problem itself but also refrained from reflecting on their own learning processes. Amirhossein stated candidly:

“I don’t even bother checking whether the answer is right anymore. Once it’s done, I feel relieved.”

This finding aligns closely with the concept of “static thinking” (Tijähjanta, 2025).

Another consequence was the illusion of competence. Exposure to high-quality AI outputs led students to mistakenly believe that they had personally attained similar levels of mastery. Sana expressed regretfully:

“In the exam, there was a question we had worked on with ChatGPT the week before. But no matter how hard I tried; I couldn’t remember the answer.”

This experience exemplifies the “gap between performance and learning” (Frohlich, 2025).

Students also reported a decline in creativity and innovation. Daniel explained:

“I used to come up with my own ideas for essays. Now I ask what I should write. My mind doesn’t really work anymore.”

Ultimately, dependency on ChatGPT resulted in surface-level learning, where students sought quick, ready-made answers instead of deep conceptual understanding. Kiana described:

“When I ask ChatGPT, I get a ready answer. I don’t look through books anymore. In the end, nothing deep stays in my mind.”

**6. Superordinate Theme Four: Lived Contradictions and Meaning Crisis**

This superordinate theme encompasses the contradictions, ambivalences, and meaning crises that students experienced in their lived interactions with ChatGPT.

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**Table 5.** Frequency of Subordinate Themes Related to Lived Contradictions and Meaning Crisis

| No. | Subordinate Theme | Number of References | Percentage of Total References |
|---|---|---|---|
| 1 | Emotional ambivalence toward the tool | 24 | 25.0% |
| 2 | Double standards in the educational system | 22 | 22.9% |
| 3 | Anxiety about the future of learning | 18 | 18.8% |
| 4 | Mutual distrust between students and teachers | 20 | 20.8% |
| 5 | Conflict between grades and authentic learning | 12 | 12.5% |
| Total | | 96 | 100% |

The most prominent contradiction was emotional ambivalence toward ChatGPT. Most participants simultaneously expressed appreciation and concern. Zahra described this tension:

"I both like it and hate it. I like it because it helps me, but I hate it because I feel it's making me lazier."

Another major contradiction involved double standards within the educational system. While students were often prohibited from using ChatGPT, they observed teachers using similar tools themselves. Ali complained:

"The same teachers who say we shouldn't use ChatGPT use it to prepare their lesson plans. Is that fair?"

Anxiety about the future of learning and the human role in knowledge production also emerged as a deep concern. Fatemeh stated anxiously:

"Sometimes I think, if AI does everything, then what are we supposed to learn? Why should we even study?"

Mutual distrust between students and teachers constituted another dimension of this crisis. Students felt that teachers viewed them with suspicion and attributed any high-quality work to AI use. Reza shared:

"I had written an assignment myself with a lot of effort. The teacher said it wasn't my work and gave me zero. After that, I don't put that much effort into assignments anymore."

Finally, students experienced a conflict between grades and authentic learning. They realized that ChatGPT could help them achieve high grades without genuine understanding. Hossein explained:

"Honestly, my grades have improved with ChatGPT. But I know myself that I haven't really learned anything. This conflict is really disturbing."

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### Superordinate Theme Five: Contextual and Moderating Factors

This superordinate theme refers to a set of contextual and moderating factors that shaped students' lived experiences and influenced their position along the continuum from intelligent use to dependency on ChatGPT.

**Table 6.** Frequency of Subordinate Themes Related to Contextual and Moderating Factors

| No. | Subordinate Theme | Number of References | Percentage of Theme References |
|---|---|---|---|
| 1 | Role of family in supervision and guidance | 16 | 29.6% |
| 2 | Influence of teachers and their pedagogical approaches | 15 | 27.8% |
| 3 | Access to technology and infrastructure | 13 | 24.1% |
| 4 | Peer group influence and school norms | 10 | 18.5% |
| Total | | 54 | 100% |

This theme highlights the factors that moderated how students experienced and used ChatGPT, shaping whether their engagement remained adaptive and reflective or shifted toward problematic dependency.

The role of the family emerged as one of the most influential contextual factors. Students whose families provided informed supervision and constructive guidance were better able to use ChatGPT in a thoughtful and controlled manner. Narges explained:

"My father is an engineer himself. He taught me how to use it properly—when to use it and when not to. It helped me a lot."

In contrast, students whose families either lacked awareness of ChatGPT or adopted purely prohibitive approaches were more likely to drift toward dependency. Amirhossein stated:

"My family doesn't even know what ChatGPT is. They just say 'don't use it, it's forbidden, it's cheating.'"

Teachers' attitudes and pedagogical approaches also played a decisive moderating role. Teachers who adopted an open, informed, and dialogical approach, guiding students in responsible use, facilitated the development of intelligent engagement with AI tools. Maryam noted:

"We have a teacher who said, 'Let's learn together how to use it properly.' That helped us a lot."

By contrast, teachers who relied solely on restrictive and threatening responses unintentionally encouraged hidden and irresponsible use. Ahmad remarked:

"Our teachers just say 'don't use it.' No one actually comes and guides us."

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Access to stable internet and appropriate technological infrastructure was another influential contextual factor. Amir commented:

"I've worked with computers since childhood and we always have internet. My friend who lives in the south of the city has weak internet, so his use is much more limited."

Finally, school norms and peer group attitudes shaped students' experiences by creating spaces for reflection, discussion, and shared meaning-making. Elnaz explained:

"In our school, there's a lot of discussion among students about how to use it. These discussions really make you think."

**Superordinate Theme Six: Coping and Adaptation Strategies**

The final superordinate theme focuses on the strategies students adopted to cope with challenges and adapt to the growing presence of artificial intelligence in their learning processes.

**Table 7.** Frequency of Subordinate Themes Related to Coping and Adaptation Strategies

| No. | Subordinate Theme | Number of References | Percentage of Theme References |
|---|---|---|---|
| 1 | Establishing personal rules for use | 13 | 31.0% |
| 2 | Integrating traditional and digital learning methods | 12 | 28.6% |
| 3 | Seeking guidance from teachers | 10 | 23.8% |
| 4 | Acceptance of reality and adaptation to new conditions | 7 | 16.6% |
| Total | | 42 | 100% |

Some students attempted to manage their use of ChatGPT by establishing personal rules and self-regulatory practices. Zahra explained:

*"I set rules for myself. For every problem, I think on my own for at least ten minutes first. If I get stuck, then I go to ChatGPT. I also never copy the answer verbatim."*

Several participants sought to create a balanced integration of traditional learning methods and digital tools. Parsa stated:

*"I try to use both books and teachers, as well as ChatGPT. For memorization and basic concepts, books are better. For getting ideas, ChatGPT works better."*

Students who struggled with challenges expressed a strong desire for guidance from teachers. Sara noted:

*"We need our teachers to help us and tell us how to use it without harming ourselves. I really wish there was someone to guide me."*

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Finally, some students reached a stage of acceptance and adaptive adjustment to the new technological reality. Hossein reflected:

*"This technology has arrived and it's not going away. We have to learn how to live with it. I'm trying to learn how to use it wisely."*

## Discussion

The present study aimed to explore the lived experiences of high school students in Qazvin regarding their interaction with ChatGPT, with a particular focus on the continuum of experiences ranging from intelligent use to dependency. Through in-depth analysis of interviews with 18 upper secondary school students, six superordinate themes and 24 subordinate themes were identified, offering a comprehensive and multilayered understanding of this emerging phenomenon within the Iranian educational context. Reflection on these findings reveals that students' lived experiences with ChatGPT constitute a complex, dynamic, and meaning-laden phenomenon, shaped by diverse contextual factors and accompanied by profound cognitive, psychological, and social consequences.

The findings indicated that students' initial encounters with ChatGPT were often characterized by curiosity, amazement, and a sense of gaining access to an unlimited source of knowledge. This result is consistent with the study by Karimi and Tahvildari (2025), who reported that interaction with educational chatbots can foster a renewed sense of competence and self-efficacy in the learning process. Alongside this sense of empowerment, however, some students experienced an initial fear of cheating, reflecting the internalization of ethical norms and concerns about the consequences of using such tools within the existing educational system. This early ambivalence can be interpreted as the first manifestation of a deeper contradiction that permeated students' experiences throughout their engagement with ChatGPT.

The theme of intelligent use and learning enhancement captures those experiences in which students adopted an active, purposeful, and reflective approach toward ChatGPT. In these cases, the tool was used to facilitate brainstorming, structure assignments, clarify complex concepts, save time, personalize learning, and support continuous self-assessment. This finding aligns with the work of Salehnezhad Behrastaghi et al. (2024), who emphasized the role of artificial intelligence in managing and improving learning processes and enabling personalized education. Similarly,

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Rezaei (2024) demonstrated that machine-learning capabilities can contribute to content customization and enhance student engagement and knowledge retention. Students situated at this end of the continuum were not passive consumers of AI outputs; rather, they functioned as critical and agentic users who maintained intellectual ownership of their learning process and employed ChatGPT as a powerful assistant alongside other educational resource.

In contrast, the theme of transition to dependency and cognitive erosion presents a concerning picture of the consequences associated with excessive and strategic use of ChatGPT. Experiences of gradual decline in independent thinking, perceived inability to complete assignments without assistance, metacognitive laziness, illusion of competence, reduced creativity, and surface-level learning were frequently reported among dependent users. These findings are fully consistent with the study by Zarei and Ghahramani Pirsalami (2025) on the educational risks of student dependency on chatbots, which highlighted reductions in critical thinking, weakening of research skills, diminished creativity, and superficial learning outcomes.

Supporting evidence also comes from a study conducted at the MIT Media Lab, which found that users who relied on ChatGPT for essay writing exhibited the lowest levels of neural engagement and gradually resorted to mere copy-and-paste practices. Other studies have similarly warned that unregulated and excessive chatbot use may undermine intellectual autonomy and critical thinking skills. The phenomenon of illusion of competence, identified in the present study, points to a critical gap between performance and authentic learning: students mistakenly equate exposure to high-quality AI-generated outputs with personal mastery, only to experience helplessness when confronted with tasks requiring independent reasoning.

Perhaps the most salient and impactful finding of this study was the superordinate theme of lived contradictions and meaning crisis, which accounted for the highest frequency of references among participants. Emotional ambivalence toward ChatGPT, double standards within the educational system, anxiety about the future of learning, mutual distrust between students and teachers, and tension between grades and authentic learning collectively constituted this crisis of meaning. Students simultaneously appreciated the instrumental benefits of ChatGPT and feared its detrimental effects on their cognitive capacities. This ambivalence resonates with the findings of Gil-Vera and Quintero-López (2025) regarding students' contradictory emotions toward artificial intelligence.

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The issue of double standards in education, whereby students are prohibited from using AI tools while teachers themselves employ similar technologies, further intensified students' confusion and distrust. Velković (2025) similarly highlighted this inconsistency in higher education contexts. Moreover, the erosion of trust between students and teachers—also discussed by Shanahan (2025)—was vividly reflected in students' narratives of having their original work falsely accused of AI-generated cheating. Such experiences not only poison the educational climate but also severely undermine motivation for authentic learning.

The contextual and moderating factors identified in this study—including family role, teachers' attitudes and pedagogical approaches, access to technology and infrastructure, and peer group influence—underscore that students' experiences with ChatGPT do not emerge in isolation. Rather, they are shaped by a complex interplay of individual, familial, educational, and social factors. Consistent with the findings of Heydarpour and Khadivi (2025), challenges such as limited AI literacy among educators and ethical concerns significantly influence how AI tools are integrated into educational practices. Families functioned either as supportive guides or as restrictive forces; teachers acted as facilitators or deterrents; and school norms created either spaces for open dialogue or environments that fostered covert and irresponsible use.

Finally, the coping and adaptation strategies adopted by students—such as establishing personal rules for use, integrating traditional and digital learning methods, seeking teacher guidance, and accepting and adapting to the new reality—highlight students' capacity for agency and self-regulation. This finding is particularly encouraging, as it suggests that students are not merely passive victims of technological change. Instead, through reflection and adaptive effort, many actively seek ways to engage with ChatGPT consciously, ethically, and productively within their learning trajectories.

Overall, the findings of this study demonstrate that ChatGPT and similar generative AI tools represent a fundamentally dual and paradoxical phenomenon in education. On the one hand, they offer unprecedented potential for personalized learning, expanded access to knowledge, enhanced creativity, and student empowerment. On the other hand, when used excessively and without strategic guidance, they risk undermining critical thinking, cognitive independence, and authentic learning, while fostering illusions of competence and deep meaning crises. What ultimately determines students' position along this continuum is not the mere presence of AI tools, but the

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quality of interaction with them within supportive family, school, and societal contexts. Prohibitive and punitive approaches are not only ineffective but may also push students toward hidden and irresponsible use. What is urgently needed is a balanced, informed, and responsible approach that leverages the affordances of AI while actively mitigating its risks and guiding students toward intelligent and creative use.

Based on the findings, it is recommended that policymakers develop clear policies and ethical frameworks, revise curricula and assessment methods, and ensure equitable access to technological infrastructure to support responsible AI use. School leaders and teachers are encouraged to foster open dialogue, design creative and problem-based assignments, and explicitly address ethical issues related to AI use. Furthermore, the promotion of AI literacy among students, teachers, and parents through formal training programs and public media is essential for empowering all stakeholders within the educational system.

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**Data availability statement**

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

**Ethics statement**

The studies involving human participants were reviewed and approved by the ethics committee of University of Tehran. The patients/participants provided their written informed consent to participate in this study.

**Author contributions**

All authors contributed to the study conception and design, material preparation, data collection, and analysis. All authors contributed to the article and approved the submitted version.

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**Conflict of interest**

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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