German Students' Views on Using Generative AI for Homework: A Three-Layered Ethical Reasoning Model

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***Abstract*—The rapid spread of Generative AI (GenAI) tools, particularly conversational agents such as ChatGPT, is reshaping school education. Yet little is known about how adolescents perceive the use of such tools for homework. This study investigates students' ethical reasoning regarding ChatGPT use and introduces a Three-Layered Ethical Reasoning Model grounded in moral development theory. We analyzed essays from 164 grammar school students (aged 14–16) across nearly all German federal states. Students first rated the fairness of using ChatGPT for homework and then explained their position in written essays. Only 12% considered ChatGPT use inherently acceptable, 43% expressed conditional acceptance, and 38% rejected it, with no gender differences observed. Qualitative analysis revealed three layers of ethical reasoning: self-oriented (personal accountability, focusing on learning autonomy and learning integrity), peer-oriented (interpersonal fairness, addressing peer equity, assessment fairness, and access disparities), and institution-oriented (systemic considerations, from potential improvements to concerns about assessment misfit and misalignment with educational goals). Each layer ranged from arguments supporting acceptable use to concerns leading to rejection. Students also frequently referred to ChatGPT's learning utility and efficiency. The findings show that adolescents approach GenAI use with nuanced ethical considerations rather than simple acceptance or rejection. We argue that a conditionally acceptable stance, supporting responsible individual use, transparent peer practices, and institutional legitimacy through clear rules and teacher guidance, is essential for the ethically sound integration of GenAI tools in the educational process.**

***Keywords*—artificial intelligence in education, generative AI, ChatGPT, homework assistance, adolescent ethics, ethical reasoning, fairness, responsible AI use, secondary education, AI ethics, AI in schools**

I. Introduction

The emergence of Generative AI (GenAI) tools, particularly conversational agents or chatbots such as ChatGPT, has introduced both new possibilities and pressing challenges for education [1–4]. These technologies offer students personalized support across a wide range of academic tasks, from efficient information retrieval and explanation of complex content to the generation of entire essays. At the same time, they raise critical concerns [5–7], particularly regarding how GenAI use aligns with academic integrity and responsible learning in educational settings [8].

To date, most academic research on GenAI in education has focused on higher education settings [8–10], while secondary schooling has received comparatively little attention [11–14]. However, surveys indicate that school-aged students are already actively using these tools for academic purposes [15–17]. In Germany, for example, 65% of 12- to 19-year-olds reported using ChatGPT for homework and school-related tasks in 2024 [16]. Despite this growing usage, the perspectives of adolescents, those most directly affected by these technological innovations, remain largely underexplored. Understanding how teenagers themselves perceive the fairness of using GenAI tools for homework is essential for developing ethically grounded educational policies and fostering equitable learning environments.

This study addresses this gap by examining how German secondary school students reason about the fairness of using ChatGPT for homework. While fairness is often conceptualized in educational technology research as a procedural or distributive issue, such as mitigating biases or insuring algorithmic fairness [18, 19], we adopt a broader ethical lens that considers fairness as encompassing individual responsibility, peer equity, and institutional legitimacy.

Through a qualitative analysis of students' written essays, we explore the nuanced ways in which adolescents assess the fairness and acceptability of ChatGPT use for homework. Based on this analysis, we propose a Three-Layered Ethical Reasoning Model that maps students' perspectives across self-, peer-, and institution-oriented dimensions, each encompassing a continuum of ethical reasoning ranging from inherently acceptable to inherently unacceptable views. This model illustrates how students navigate the ethical tensions surrounding GenAI use in terms of what they consider fair, responsible, and educationally legitimate. In doing so, the study contributes to a deeper understanding of adolescent digital ethics and offers practical implications for educators, policymakers, and technology developers seeking to promote responsible integration of GenAI in secondary education.

II. Background and Context

This section outlines the key benefits and challenges introduced by GenAI in educational contexts, discusses its integration into secondary education, reviews existing research on adolescents' perceptions of GenAI, and presents the objectives of this study.

A. Benefits and Risks of GenAI in Education

The potential benefits and risks of GenAI integration, especially in higher education settings, have received significant attention in recent years [5, 8, 9, 20, 21]. Many studies highlight the ability of GenAI to act as a personalized learning companion, offering tailored support, facilitating information access, stimulating creative thinking, and enhancing comprehension [20, 22, 23]. A meta-analysis of empirical studies found that AI chatbots have a significant, medium-sized positive effect on learning, suggesting that

they can be effective in certain educational scenarios [24]. A systematic review of Pergantis *et al*. [25] reported that AI chatbots may improve executive functions, acting as digital learning assistants that contribute to users' cognitive, metacognitive, and social development.

However, empirical research on GenAI use among younger learners in secondary education remains limited [11, 12, 14, 26–28]. For example, Jauhiainen and Garagorry Guerra [12] studied 110 students aged 814 in Uruguayan schools and found that using GenAI for dynamic personalization of educational content during lessons can improve motivation and academic performance. Abdelghani *et al*. [11] examined 14- to 15-year-old students' ability to ask effective questions and critically evaluate responses of ChatGPT. Their findings showed that students often over-relied on ChatGPT in both formulating questions and assessing answers, resulting in only moderate learning outcomes. Adelhardt and Eberle [28] explored German secondary students' reflections on ChatGPT use and introduced the "4I Model", which highlights key student-perceived benefits of GenAI: Information, Inspiration, Improvement, and Immediacy.

Alongside these benefits, scholars have raised a wide range of critical concerns regarding GenAI in education [5, 6, 22]. A central issue is the potential erosion of academic integrity: the ease with which ChatGPT and similar tools can generate complete assignments fueled fears of plagiarism, over-reliance, and the outsourcing of cognitive effort [7, 8, 29–31]. The habitual use of GenAI may undermine students' independent reasoning, problem-solving, and critical thinking skills [30, 31]. A systematic review of 41 studies discussing GenAI's impact on academic integrity in higher education concluded that while GenAI may enhance educational engagement and learning efficiency, it also presents serious risks of academic dishonesty [8].

These concerns are not only voiced by academics but also by students themselves [23, 32]. A study on early adopters' attitudes toward ChatGPT revealed mixed perceptions: while some viewed it as a tool capable of amplifying student self-efficacy and learning motivation, others expressed concerns about becoming overly dependent on it, potentially encouraging superficial learning habits and undermining critical thinking skills [23]. Another study on students' perceptions of ChatGPT in English-language learning found that students were more concerned about its negative impact on their writing skills than about the risk of being caught and facing academic penalties [32].

In addition, risks related to content accuracy and reliability have also been widely discussed: GenAI tools can generate hallucinated or misleading content [33], reinforce existing societal biases [34, 35], and reproduce problematic stereotypes [36]. Moreover, issues related to privacy and information security also remain unresolved [37].

B. GenAI Integration in Secondary Schools

The integration of GenAI tools in schools has sparked active debate, often marked by polarized views, among educators, policymakers, researchers, and developers. At the core lies the question of whether and how tools like ChatGPT should be permitted or restricted in educational settings [38, 39]. While some jurisdictions have imposed formal bans to safeguard academic integrity [40, 41], others, such as some U.S. schools, are exploring their potential as a powerful teaching assistant [42].

Balancing GenAI's pedagogical potential with its ethical risks remains a major challenge [43–45]. Although discussions on responsible AI and digital ethics in education are evolving [30, 45], research shows that ethical and societal concerns related to AI use in primary and secondary education are often overlooked [46].

Beyond regulating AI use, education systems must prepare students to navigate a society where AI is constantly present. Yet AI literacy remains insufficiently addressed in primary and secondary education [47, 48]. A systematic review of 179 sources worldwide found that the formal integration of AI literacy into curricula is limited, leaving a significant public education gap [47]. The authors argue that AI literacy at the K-12 level presents a "pedagogical and cognitive challenge", including insufficient evaluation of AI-related learning outcomes. Another review of 124 empirical and theoretical studies [48] identified shifting definitions and trends in AI literacy since the public introduction of GenAI, with far more work in post-secondary than K-12 contexts. While interventions to improve functional AI literacy exist, strategies for fostering critical literacy remain unclear. Only a few studies have surveyed or interviewed students about their actual use of GenAI tools to identify key needs [13, 26, 49].

C. Perceptions of Adolescents toward GenAI and its Use

Before the rapid rise of GenAI, several studies examined primary and secondary school students' attitudes toward AI, their baseline knowledge, and AI literacy [50–54]. For example, Chai *et al*. [53] investigated factors influencing students' intention to learn about AI, while Singh *et al*. [51] analysed perceived usefulness, behavioral intention, and interest in AI learning, considering moderating effects of readiness, optimism, and social good orientation. Suh and Ahn [50] developed a diagnostic tool to measure students' attitudes toward AI as a baseline for evaluating the effectiveness of new instructional approaches.

Other work focused on adolescents' broader perceptions of emerging technologies in education [55, 56]. Sørensen and Koefoed [54] examined adolescents' motivation, expectations, and visions for future technology-enhanced schooling. Druga *et al*. [55] explored how children in the USA, Germany, Denmark, and Sweden imagine smart devices and perceive AI technologies, noting socio-economic and cultural differences. Children from lower socio-economic backgrounds demonstrated stronger collaboration skills, while those from higher socio-economic contexts had deeper conceptual understanding and more experience interacting with AI, which underscores the need for targeted AI literacy initiatives.

In the context of GenAI specifically, most studies have focused on higher education [23, 57], with far fewer addressing the perceptions of secondary school students [13, 26, 27]. Belgrith *et al*. [13]. through focus groups with 24 middle school students, looked how they conceptualize ChatGPT and found that misconceptions about this tool reveal gaps in understanding GenAI, though most learners expressed interest in learning more about AI and its

capabilities. Adelhardt and Eberle [26] examined adolescents' acceptance of GenAI tools, finding that performance expectancy and effort expectancy were key motivators for their use, while perceived risks related to concerns over reliability of AI-generated content and their impact on learning integrity were major barriers.

Recent studies have begun exploring how personal characteristics influence adolescents' use and perceptions of GenAI [25, 27]. Klarin *et al*. [27] found that adolescents' executive functioning, a set of higher-order cognitive processes necessary for setting and achieving goals, was associated with the frequency of GenAI use and its perceived usefulness for schoolwork.

However, adolescents' perceptions of ethical issues, particularly their views on fairness and acceptability of GenAI use in academic settings, remain largely unexplored, despite their crucial role in guiding the responsible integration of GenAI in secondary education.

D. Ethical Frameworks Informing AI Use in Education

Recent debates about the ethical deployment of generative AI in schools have been guided by several complementary frameworks that are highly relevant for understanding fairness issues in educational contexts as well as for designing ethical institutional responses. At the technical–ethical level, the Fairness, Accountability, and Transparency (FAT) framework remains a widely used analytic scaffold for identifying algorithmic harms and assessing institutional accountability and user trust in AI systems [18, 58]. However, as Bernard and Balog [58] highlight, the interpretation and practical application of FAT principles vary considerably. Fairness is defined as "treating people equally or in a way that is reasonable" [59], yet its operational meaning differs greatly across settings. It is not a fixed or universally agreed principle - its interpretation shifts depending on context and competing priorities. Complementary approaches, such as ecological education policy framework [60], Floridi's framework for the ethical use of AI [61], and other value-sensitive perspectives on ethical AI [45, 62], emphasize that justice and fairness must be understood relationally and negotiated among AI users, educators, and institutions rather than reduced to purely technical parameters.

These ethical principles have been translated into some concrete recommendations for education systems. UNESCO's *Recommendation on the Ethics of Artificial Intelligence* [63], UNESCO's *Guidance on Generative AI in Education* [64], and the *OECD Ethical Framework for AI in Education* [65] foreground human-centered values, includingtransparency, inclusivity, accountability, fairness, and respect for human dignity, as foundational to policy and practice. The UNESCO's Guidance further aims to support countries to implement informed actions and proposes an age-appropriate, human-agent approach to validation of GenAI tools and key steps to their regulation [64].

National and regional authorities have also begun producing actionable guidance [66–68]. For instance, the Conference of the Ministers of Education of the Länder (Kultusministerkonferenz) recently adopted its *Recommendation for Action for the Education Administration on the Use of AI in School Education Processes* [67]. It encourages German schools to engage with AI in constructive and critical way by promoting its responsible integration into teaching and the creation of personalized learning environments for students, supporting teacher professionalization, ensuring fair assessment through a rethinking of examination culture, providing clear regulation, and safeguarding equal opportunities for all learners. In parallel, international initiatives such as the TeachAI [66] compile national AI-education strategies and school-level toolkits that exemplify how ethical principles can be operationalized in practice.

Taken together, these ethical frameworks and policy developments provide a useful background for interpreting adolescents' fairness judgments. They demonstrate that students' reasoning about the use of GenAI is embedded in a rapidly evolving normative landscape, in which the principle of fairness plays a crucial role in aligning human-centered educational values with technological innovation.

E. Fairness and Research Objectives of the Study

This study focuses on how adolescents reason about the fairness of using GenAI, specifically ChatGPT, for homework. Fairness is a core value in education, encompassing expectations of equal treatment, merit-based assessment, and equitable access to learning opportunities [69, 70]. In moral philosophy and educational theory, fairness is often discussed alongside related concepts such as justice, equity, and responsibility [70, 71].

To understand how adolescents reason about fairness of using GenAI for homework, it is important to situate this study within broader theories of moral development [72–74]. According to Kohlberg's theory of moral development, moral reasoning progresses through six stages organized within three overarching levels: preconventional, conventional, and postconventional morality [73]. This progression reflects a shift from externally guided reasoning in the early stages, based on obedience, avoidance of punishment, and self-interest, toward reasoning grounded in personal ethics in later stages. It also denotes an increasing capacity to reason about moral dilemmas and moral principles using abstract concepts involving others' welfare, rights, equality, fairness, and justice [73, 75]. Within this framework, secondary school students are typically in transition from conventional to postconventional levels of reasoning [73, 75]. Their perspectives on the fairness of using AI tools may therefore reflect both rule-based and principle-oriented reasoning and combine moral reasoning based on external ethics (conventional stage) with moral reasoning based on personal ethics (postconventional stage). This developmental trajectory provides an important lens for interpreting how adolescents assess the fairness of using GenAI, such as ChatGPT, for homework.

Complementary to Kohlberg's framework, Rest's four-component model [72] emphasizes that moral behavior results from the interaction of moral sensitivity, moral judgment, moral motivation, and moral character. According to this model, rather than progressing through separate stages of moral reasoning, individuals rely on moral schemas—generalized knowledge structures that help interpret information and situations. Applying this model in our study allows adolescents' ethical stances toward GenAI use to be conceptualized not as static opinions but as

manifestations of cognitive and affective moral functioning. It further helps to identify the variety of moral schemas that teenagers use to make sense of ethical issues in this context. From this viewpoint, fairness judgments regarding ChatGPT use emerge from adolescents' ability to recognize ethical dimensions and imagine those affected (sensitivity), reason about possible actions (judgment), prioritize moral values over other motives and take moral responsibility for outcomes (motivation), and possess the ego strength and persistence to translate moral intentions into responsible behavior (character). Our study thus aims to explore the multiple moral schemas adolescents employ to navigate ethical challenges surrounding GenAI use.

Kohlberg's and Rest's frameworks [72, 73] provide a comprehensive theoretical foundation for examining how adolescents form ethical judgments about generative AI use in educational settings. By integrating these perspectives, this study moves beyond simplistic evaluations of fairness to consider the complex interplay of moral schemas that underpin adolescents' moral reasoning. This study examines whether adolescents consider the use of ChatGPT for homework as fair, and how they justify their views. In German Gymnasiums (academic-track secondary schools), the regulation of GenAI varies widely:from strict bans and informal rules to conditional permissions and even the absence of any formal policy [76]. But regardless of school-level regulation, homework is typically completed independently at home without direct supervision. This creates an ambiguous context: although homework is meant to reflect student's individual effort and sometimes contributes to formal assessment, enforcement of GenAI-related rules, if any, is minimal.

Such conditions make fairness judgments especially complex. The objective of this study is to explore how adolescents evaluate the fairness of GenAI use in these unregulated learning contexts. The study is guided by the following research question: "*How do adolescents perceive and reason about the fairness of ChatGPT use for homework, and what ethical considerations shape their judgments?*" By analyzing students' reasoning and ethical perspectives, the study seeks to contribute to a more grounded understanding of how fairness is conceptualized by young people, providing insights that can inform policies and educational practices for fostering ethically sound GenAI use that resonates with students' lived realities.

III. Methodology

This study employed a qualitative design with quantitative elements to investigate how teenagers perceive the fairness of using GenAI tools such as ChatGPT for homework. A total of 164 secondary school students (aged 14-16; $M = 14.98$, $SD = 0.73$; 56% female) from grammar schools (Gymnasiums) in 15 of Germany's 16 federal states, each with its own independent educational system, participated in the study.

Participants were recruited through purposive sampling from a pool of students applying to an adventure education program. This recruitment strategy enabled a consistent demographic profile while capturing teenagers' views from heterogeneous educational settings within Germany. Data were collected in March 2025 using the SoSci Survey platform [77]. Participants were given 14 days to complete the questionnaire.

To contextualize the sample, participants were also asked about their prior experience with generative AI tools. Overall, 78% reported using such tools. Among these users, all mentioned using ChatGPT, while several additionally referred to tools such as Gemini, DeepSeek, Bing, Perplexity, Gamma, Microsoft Copilot, SunoAI, PlaygroundAI, GitHub Copilot, Readow, Turbolearn, Ecosia AI, and Artguru. While not all of these platforms are large language model (LLM) systems comparable to ChatGPT, they were reported by participants as generative AI or AI-assisted tools. Regarding frequency of use, 8% indicated using GenAI tools daily and 34% weekly. The survey included two items:

- A closed-ended question assessing teenagers' perceived fairness of ChatGPT use for homework,
- A follow-up open-ended question inviting students to explain their reasoning.

The closed-ended question *„Do you think using ChatGPT for homework is fair?"* offered four response options:

- "Yes, it helps everyone to learn better"
- "Yes, if the usage is clearly indicated"
- "No, it feels like cheating"
- "I'm not sure"

The response options were deliberately designed to reflect a range of teenagers' positions: inherent acceptance, conditional acceptance, rejection, and uncertainty, enabling clear quantitative categorization. While the survey asked explicitly about *fairness* rather than more abstract terms like *acceptability*, this wording choice was intentional. Our prior research with this age group indicated that the term *acceptability* often elicited pragmatic responses focused on personal usage. In contrast, the fairness framing prompted more ethical reflections. It should be noted, however, that the concept of fairness in this study was broader than its typical use in the technology ethics literature [78]. In German, the term *Fairness* often appears in everyday contexts beyond formal ethics discussions, and this colloquial familiarity was considered more relatable for teenage participants.

The subsequent open-ended question, *"Why do you think so?"*, elicited in responses ranging from 5 to 142 words (up to 870 characters). All participants responded to both items.

All ethical research guidelines for studies involving minors were strictly followed. Written informed consent was obtained from both students and their legal guardians. An informational Zoom session was held prior to data collection to explain the study's goals, procedures, and data protection measures. Anonymity and confidentiality were ensured throughout the research process.

During the final phase of manuscript preparation, ChatGPT was used solely for linguistic refinement and grammar correction. It was prompted with controlled instructions focused exclusively on language editing, ensuring no influence on the manuscript's analytical content, coding, or interpretive decisions.

IV. Data Analysis

The closed-ended question provided categorical data that allowed for descriptive statistical analysis, conducted using SPSS (Version 29). The primary analytical focus of the study, however, was on qualitative data, analyzed with the support of CATMA (Version 7) [79] through a content analysis

approach inspired by Mayring [80] and informed by selected principles of Grounded Theory, such as open and axial coding and theoretical sensitivity [81], to explore the ethical reasoning underlying teenagers' views on the fairness of using GenAI for homework.

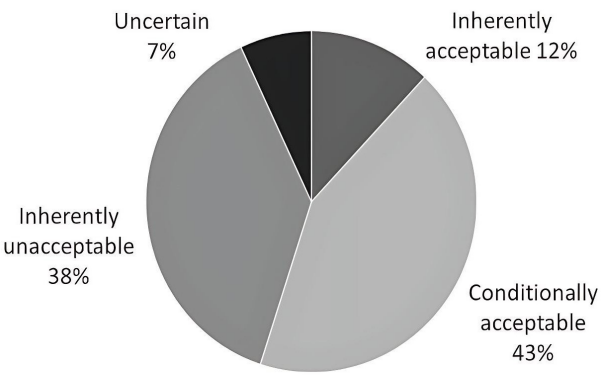
Open-ended responses were inductively coded and grouped into three overarching stances: inherently acceptable, conditionally acceptable, inherently unacceptable, and then further analyzed across self-, peer-, and institution-oriented ethical dimensions. This dual lens allowed us to explore in depth how teenagers navigate complex ethical considerations surrounding GenAI use. Frequencies of codes were also calculated to identify dominant reasoning patterns.

We systematically coded all qualitative justifications across the full dataset, independent of how students answered the close-ended question. This approach allowed us to capture layered or even internally contradictory reasoning patterns. For instance, a student might have selected "inherently acceptable" in the close-ended question while providing a justification that included ethical concerns and implied conditionality. Consequently, some responses contributed to multiple thematic categories. This led to a richer picture than the closed-ended frequencies alone suggest; for instance, conditionally acceptable reasoning appeared in 51% and inherently unacceptable in 48% of all open-ended responses, in contrast to their respective frequencies in the closed-ended responses (43% and 38%).

To maintain anonymity and enable systematic analysis and citation, each response was assigned a unique identifier (e.g., P.47).

V. Findings

In response to the closed-ended question "*Do you think using ChatGPT for homework is fair?*", students' answers were distributed across four predefined categories, as Fig. 1 presents.



Note: "Inherently acceptable" = "Yes, it helps everyone to learn better"; "Conditionally acceptable" = "Yes, if the usage is clearly indicated"; "Inherently unacceptable" = "No, it feels like cheating"; "Uncertain" = "I'm not sure".

Fig. 1. Students' fairness judgments on using GenAI for homework (N = 164).

To examine whether boys and girls differed in their perceptions of the acceptability of GenAI use for homework, a chi-square test of independence was conducted. The results indicated no statistically significant association between gender and acceptability stance, as in Eq. (1):

$$\chi^2(3, N = 164) = 1.34, p = 0.72 \quad (1)$$

This suggests that boys and girls in the sample held similar views on the acceptability of GenAI use for homework.

Our findings indicate that while a small minority of students considers GenAI use as unconditionally beneficial (12%), the majority of students adopt a conditional acceptability perspective**,** suggesting that ethical acceptance of GenAI use for homework depends on proper attribution (43%). 38% reject GenAI use for homework as unacceptable, and 7% are uncertain.

While the multiple-choice options linked conditional acceptance to concerns about transparency (indicating use) and inherent unacceptability to cheating, the open-ended responses revealed a much broader and more complex range of considerations.

In response to the open-ended question *"Why do you think so?"*, students offered a wide range of justifications for their stance on the fairness of using GenAI for homework. These justifications reflected two major forms of reasoning:

- **Functional reasoning**, which highlights practical benefits of GenAI use for homework, such as learning support and efficiency;
- **Ethical reasoning**, which draws on concerns such as personal responsibility, peer equity, assessment fairness or educational integrity.

We begin by presenting students' functional reasoning (*Section A*), which stands apart from ethical justifications but was nonetheless common and influential in their views. It framed GenAI use primarily in terms of learning utility.

We then organize the ethical reasoning according to students' overall stance toward GenAI use for homework, whether they viewed it as:

- **Inherently acceptable** (fair) – 20% (*Section B*);
- **Conditionally acceptable** (fair under certain conditions) – 51% (*Section C*);
- **Inherently unacceptable** (unfair) – 48% (*Section D*).

The total number of codes across categories exceeds 100% as individual responses often reflected more than one stance.

Within each of these ethical stances, students' arguments fell into three recurring categories of reasoning: self-oriented reasoning (focus on individual learning autonomy and integrity); peer-oriented reasoning (focus on fairness among students); institution-oriented reasoning (focus on the educational system and assessment practices) (see Fig. 2).

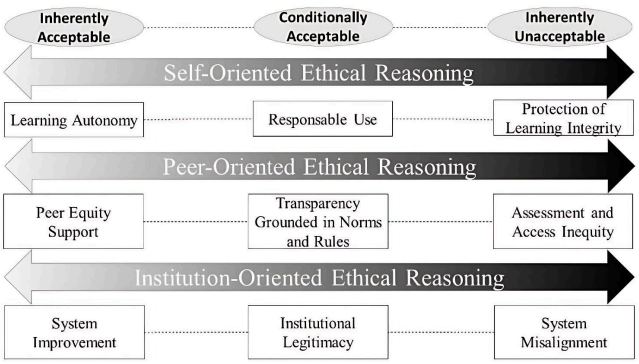


Fig. 2. Three-layered ethical reasoning model: Teenagers' views on the fairness of GenAI use for homework.

At the end of the chapter we present ambivalent reasoning views (*Section E*) and non-categorizable responses (*Section F*).

A. Functional Framing: ChatGPT as a Learning Tool

Learning Utility emerged as a prominent theme in students' justifications for using GenAI for homework. Overall, 34% of respondents (56 out of 164) highlighted the educational benefits of ChatGPT, referring to its potential to support and enhance learning. Within this group, 13% of the full sample (21 respondents) specifically mentioned improved understanding of difficult subject matter, 3% (5 respondents) emphasized its usefulness for information search, and 2.5% (4 respondents) referred to the generation of new ideas or inspiration. In addition, 9% (14 respondents) highlighted the time-saving potential of ChatGPT. Eight participants mentioned both learning support and time efficiency, suggesting that many students viewed GenAI as helpful both for deepening understanding and for managing academic workload.

Some students described ChatGPT in general terms as a practical and useful tool for learning. Rather than focusing on specific functions, they emphasized its normality and integration into the modern learning context: *"it's a great tool for me! It helps me to learn!" (P.161), "I don't see a big difference between ChatGPT and Google" (P.7), "it is a supplement to the internet and can be used well as a supplement" (P.2).*

Most frequently, students emphasized ChatGPT's potential to clarify complex or unfamiliar topics by offering alternative explanations. They valued how it enhanced their understanding of difficult material, especially when conventional resources or support were insufficient or unavailable: *"it can help you understand the topic better and also explain it again in a different way that is perhaps easier to understand" (P.24), "Homework should help to improve understanding and consolidate learning content, if Chat GPT helps with this, its use is completely justified" (P.70), "Chatgpt can help me with tasks or explain new topics to me, so my parents don't have to do it" (P.62).*

Several students also emphasized how ChatGPT supports individualized learning. They appreciated that the tool could adapt to different learning needs and styles, making learning more flexible, effective, and inclusive: "*you can also learn content much more individually and ultimately more effectively with the support of an AI. I know of friends who have learning content 'read' to them by an artificial intelligence in order to learn auditorily. AI can therefore make learning much more individualised by supporting different learning styles – be it through visual, auditory or interactive methods" (P.83), "ChatGPT can explain things differently and adapt to the questions and prompts" (P.111).* Two teenagers also highlighted GenAI's value in generating learning exercises to support the learning process: *"it can make difficult tasks easier to explain or create meaningful learning exercises" (P.85), "it is useful for generating tasks for independent learning" (P.164).*

Other students emphasized GenAI's practical advantages in reducing effort and streamlining homework tasks. While these views were not always directly linked to deeper learning, they focused on GenAIs usefulness for generating ideas and offering inspiration, providing fast and easy access to information, and providing immediate help when time was limited: *"it makes searching for information much easier as you don't have to gather the information yourself" (P.14), "ChatGPT is good for finding ideas and inspiration" (P.147), "I use it too, especially when I haven't done something and don't want to arrive at school empty-handed"(P.17),* "*you should do your homework yourself, but it can make things easier and you can invest the time saved in learning" (P.52).*

Taken together, these responses indicate that many students frame the acceptability and fairness of using GenAI for homework in functional rather than strictly ethical terms. ChatGPT is seen as a legitimate educational aid, one that improves understanding, providing personalized support, facilitates access to information, sparks inspiration, and provides immediate results saving time and effort.

B. GenAI Use as Inherently Acceptable

20% of students view the use of ChatGPT for homework as inherently acceptable and beneficial. In this section, we describe three types of their reasoning supporting this view: from personal learning autonomy to potential educational system improvement.

1) Self-oriented reasoning

Some students (9% of the sample, 15 out of 164 respondents) framed the use of ChatGPT for homework as inherently acceptable based on personal learning autonomy. For these students, using GenAI was not necessarily a question of educational norms or external rules, but a matter of individual agency and strategic choice. GenAI was perceived as a tool they were free to use according to their own goals, values, and responsibilities.

Respondents emphasized that learning outcomes ultimately depend on students' own decisions, including how and when to use GenAI tools. This reasoning reflects a strong sense of ownership over the learning process, where the consequences, positive or negative, are seen as self-determined: *"in the end it's my own problem anyway if I do my homework entirely with ChatGPT" (P.38)*, *"I think in year 10 you are old enough to decide whether you just want to have your homework done or try to understand it better with the help of AI." (P.63), "I think everyone should be able to decide for themselves whether to use AI tools for school tasks, as some young people already know what they want to do later in life [...] From a certain age, it should be possible to save time in these areas in order to devote it to areas that are more important for a career." (P.156).*

This individualistic framing positions GenAI use as a personalized learning strategy, where students exercise their judgment about how much effort to invest, depending on their perceived relevance of the content or future aspirations. A related sub-theme within this reasoning was future readiness and technological competence. Several respondents emphasized that using GenAI tools in school is not only appropriate but necessary for developing skills relevant to their future lives and careers: "*in future working life, AI will always be a part of it, so you should deal with it now and learn how to get the right results with AI" (P.134).*

These comments reflect a forward-looking attitude: using GenAI is seen not merely as a shortcut, but **as** an opportunity to build digital literacy and prepare for a technology-driven professional world.

2) Peer-oriented reasoning

Peer-oriented reasoning was expressed by 7% of respondents (11 out of 164), who justified the inherent

acceptability and fairness of ChatGPT use for homework by highlighting equal access and peer equity. These students emphasized that the free and open availability of tools like ChatGPT helps level the playing field, especially for peers who lack other forms of academic support, such as assistance from parents or private tutors. From this perspective, GenAI use is seen as inherently fair and acceptable because it provides equal learning opportunities for all students: "*anyone it helps can access it for free, so everyone has the same options" (P.18),* "*AI is more likely to provide equal opportunities, especially for children who cannot get such help at home" (P.73),* "*the use of AI tools for homework is fair, as all the young people in my class and school have free access to them. It is also fair that it can explain connections, regardless of whether you have parents who can explain it to you" (P.114).*

These responses show that students' arguments for fairness and acceptability extend beyond personal benefit to include a socially-oriented concern for peer equity and inclusiveness in learning.

3) Institution-oriented reasoning

4% of teenagers (7 out of 164 respondents) framed the inherent acceptability of GenAI use for homework through institution-oriented reasoning, emphasizing its' potential for educational system improvement. These students highlighted how GenAI could enhance educational structures—not just individual learning—by supporting teachers, improving instruction, and compensating for institutional shortcomings.

Some viewed GenAI as a way to improve classroom learning by reducing dependency on teachers for minor clarifications or compensating for instructional gaps: "*you don't have to ask stupid questions again in class but can clarify them yourself at home" (P.6), "there are teachers who simply cannot convey the theory to be learnt" (P.44).* One student noted GenAI's utility in maintaining learning continuity for students who miss lessons: *"it can help many people if they have not been to school on certain days to catch up on the subject matter" (P.51)*.

A related theme was the expectation that schools should actively integrate GenAI education into their curriculum, promote GenAI literacy and usage skills: *"Everyone should get to know how to use it" (P.163), "You should learn (especially students) how to deal with AI" (P.159).*

Together, these responses suggest that students consider GenAI not only as a tool for personal or peer support, but also as a pedagogical and instructional asset that should be meaningfully embedded into school systems—both to enhance the quality of education and to prepare students for a technology-driven future.

While some students perceived GenAI use for homework as inherently acceptable, framing it as a matter of personal autonomy, peer equity, or educational system improvement, others introduced important conditions for its acceptability. The next section explores these conditionally acceptable views.

C. GenAI Use as Conditionally Acceptable

A significant portion of students (51% of the sample) regarded the use of ChatGPT for homework as acceptable only under certain conditions. Their ethical reasoning was grounded in shared norms, mutual accountability, and institutional boundaries.

1) Self-oriented reasoning

A substantial portion of students (34% of respondents, 55 out of 164) described the use of GenAI for homework as conditionally acceptable, grounded primarily in a sense of personal responsibility and ethical boundaries. These students did not adopt a blanket approval or rejection of GenAI use but instead emphasized the importance of using GenAI responsibly and purposefully, setting self-imposed limits to ensure it remains a supportive tool rather than a substitute for learning.

The dominant view was that GenAI should assist with understanding, researching, or generating ideas, but should not complete tasks on behalf of the student. GenAI was acceptable only if it supported learning rather than replaced it. As one student put it, *"you can use AI very well for learning, but you have to use it properly" (P.151)*. Many echoed this perspective, noting that using GenAI to clarify difficult concepts was legitimate: *"If you only use the platform to understand a difficult topic and don't copy it, I think that would be okay" (P.9), "ChatGPT can be very useful for understanding new content, as long as it does not replace learning and completing assignments" (P.117),* and *"as long as you don't simply have your homework done, but use AI to understand content or improve your task, its use is completely legitimate for me" (P.50).*

Respondents frequently expressed that GenAI use must be guided by critical thinking and personal engagement. It was often described as acceptable for finding ideas or sparkling inspiration—*"you can use it for inspiration, but you shouldn't have the homework done for you" (P.49)*, as long as the student remained the active agent in the learning process. As an information source it is also conditionally acceptable: *"it's important that you don't have the solution told to you, but that you inform yourself indirectly about what you want to know and actively think about it again yourself in order to achieve the teaching effect" (P.30).* Moreover, several emphasized the need to cross-check AI-generated content, with comments such as *"you should not trust them blindly, but always carry out a quick check" (P.8)* and *"they are useful for helping with certain homework assignments, but should not be relied upon" (P.34).*

Importantly, many students drew clear ethical lines regarding acceptable and responsible use. Using GenAI for research or clarification was viewed as appropriate, but copying or fully outsourcing tasks crossed into what they considered cheating. For instance, one student stated: *"if you use ChatGPT for research, for example, but write the essay yourself, I don't see that as cheating. However, if you have your entire presentation prepared by ChatGPT, that is cheating for me" (P.77).* Similarly, *"I think ChatGPT is good for finding ideas and inspiration, for example. However, I think it's wrong to simply copy entire essays without even bothering to think about them" (P.147).*

The scope and frequency of use were also considered crucial. While occasional or partial help was viewed positively, overreliance or habitual use was considered inappropriate: *"only if you don't use it all the time so that you learn to do something yourself" (P.125), "AI must not do most of the work" (P.144), "I see no problem in using ChatGPT for parts of homework" (P.7),* and *"if the range of*

use is limited and you can still understand and learn most of the tasks yourself and the AI doesn't do everything for you, then it can definitely be a support and save time" (P.55).

Moreover, several students expressed strong disapproval of using GenAI out of laziness or to avoid effort, reinforcing a norm of effort-based learning: *"I do not support the use of AIs if they are used out of laziness and cheating" (P.78),* and *"you must not use it if you are simply too lazy to do the homework, but only as an aid" (P.25).*

In a few cases, students noted that acceptability depends on subject area or context. For example, one student remarked: *"for me it depends in which subjects – as I find it unhelpful when writing essays, for example, but can find it helpful when solving maths problems" (P.154)*. Two students also described GenAI use as justifiable only as a last resort, when all traditional resources had failed: *"I think it's only legitimate to use AI to help if all possible contacts can't help and you've already tried to solve the task with the help of learning videos, grammar notes etc." (P.5), "I don't think it's any good if you can't get any further with a homework assignment and then have nothing. In this case, I think it would be fine to get a solution from ChatGPT and then try again." (P.76).*

Taken together, these responses highlight a nuanced view of responsible use of GenAI rooted in personal ethics, academic integrity, and learning efficacy. Students positioned themselves as active decision-makers, balancing the advantages of GenAI tools with a strong commitment to individual effort, critical thinking, and appropriate boundaries.

2) Peer-oriented reasoning

A smaller group of students (7% of respondents, 11 out of 164) framed the acceptability of ChatGPT use for homework in terms of peer-oriented fairness and transparency grounded in common norms and rules. For these students, responsible use of GenAI was not just about individual learning or effort, but about ensuring fairness within the broader classroom community.

Central to this perspective was the principle of transparency. Students repeatedly stressed that GenAI use must be clearly disclosed in order to maintain fairness and avoid misrepresentation. They argued that GenAI-generated content should be identified, allowing teachers and peers to understand what was created with assistance and what was done independently: *"It is fair if it is clearly labelled which content is self-produced and which was created with the help of ChatGPT" (P.114), "if the use is clearly labelled, then it is clear that the student has done the homework with the help of AI" (P.115)*. For these students, disclosure was a prerequisite for ethical acceptability: *"if it's clearly labelled then it's ok" (P.126),* and *"as long as it is specified" (P.2).*

This reasoning reflected a strong concern about avoiding disadvantages to others. Students emphasized that unlabeled use of GenAI could mislead teachers and result in unfair comparisons among peers, especially if one student's work appeared stronger due to hidden GenAI support: *"then the teacher can decide independently how to deal with it and other students are not disadvantaged by giving poorer results" (P.107)*. As one student put it, *"it depends on whether it brings disadvantages for others" (P.120).*

Several responses framed undisclosed GenAI use as dishonest or even cheating, particularly when it led to misleading evaluations: *"if it's not labelled, it's cheating" (P.56).* This ethical concern was often accompanied by a desire for shared rules and adherence to these rules: *"if everyone is allowed to do it, everyone has the same chance of doing the homework well" (P.31),* "*if it is limited and everyone sticks to it, it is fair, but if students use ChatGPT without permission it is very unfair to the others" (P.41).*

Altogether, these students expressed a conditional view of acceptability that emphasizes transparency grounded in shared norms and adherence to common rules. In their view, GenAI use is not inherently problematic – but it must be practiced in a way that respects others and avoids deception.

3) Institution-oriented reasoning

A notable group (10% of respondents,16 out of 164) framed the acceptability of ChatGPT use as dependent on system-level conditions. Central to their reasoning was the need for common rules, institutional guidance, and clearly defined expectations. These students emphasized that the legitimacy of using GenAI depends on the clarity and consistency of school policies. As one student put it, "*If everyone has the same rules for use, then everyone has the same possibilities and opportunities" (P.7)*. Others echoed the need for clear regulation to prevent misuse: *"I think it must be clearly regulated" (P.19), "It must be clear how much ChatGPT you're allowed to use for the task" (P.90)*, *"A certain degree of rigor and rule management is necessary" (P.109).*

Students also recognized the importance of learning to use GenAI appropriately: *"The sensible use of AI also needs to be learnt" (P.97)*, and stressed the need to define boundaries: *"It must be clear where the limits are" (P.159)*.

Another key theme was teacher-guided legitimacy. Several respondents indicated that acceptable use depends on teacher's permission and guidance: *"If the teacher wants to use it for certain things, then you are welcome to use ChatGPT" (P.17), "Everyone is free to use it (with the teacher's permission)" (P.63)*. In contrast, a lack of guidance created moral uncertainty: *"With us, the teachers never talk about whether it's allowed or not. That's why it feels like cheating" (P.126).*

Some students expressed concerns about the compatibility of current task formats with GenAI. They argued that if GenAI can easily complete an assignment, the task itself may no longer be valid - suggesting that responsibility lies with the educational system to adapt assignments accordingly: "*The tasks set are not intended to be used [with AI] and would possibly have to be formulated differently if they were" (P.15), "The homework should also include a section for thinking for yourself" (P.31).*

Taken together, these responses frame acceptability as conditional on institutional legitimacy, grounded in shared rules, teacher oversight, and tasks that are thoughtfully adapted to the capabilities of GenAI.

While many students expressed conditional acceptance of GenAI use, dependent on personal ethics, peer fairness, or institutional legitimacy, a smaller but notable group rejected its use outright. The next section explores these views.

D. GenAI Use as Inherently Unacceptable

For a notable group of students (48%) ChatGPT use for

homework was seen as fundamentally unacceptable. Below is the analysis of their views.

1) Self-oriented reasoning

Almost one third of all respondents (32%, 52 out of 164) viewed the use of GenAI for homework as inherently unacceptable, grounded in a strong commitment to personal learning integrity and individual responsibility. They perceived GenAI as incompatible with genuine learning and self-development.

A central concern was that GenAI undermines cognitive effort and the purpose of homework itself. Many students emphasized that learning requires active engagement, repetition, and reflection – and that relying on GenAI shortcuts this essential process. As one student put it, *"Homework is repetition and practice exercises to reflect on how well you can do the subject matter. If you then use AIs, this is no longer the case, as you are no longer working on the task yourself" (P.5).* Others echoed this idea, noting that *"the point of homework is to practice and internalise the subject, not to find the most appropriate question for AI chat" (P.36)*, and *"Homework is there to repeat <...> You can't do that if you use AI"* (P.113).

Many also expressed fears of becoming too dependent on AI, warning that overuse could weaken their ability to think independently or reduce motivation to learn: *"the help of AI tools makes us less independent and we don't even try to learn certain things*" *(P.60), "It is tempting to rely only on ChatGPT and neglect your own knowledge and learning" (P.122)*. Closely linked was a concern that GenAI use could suppress creativity and critical thinking: *"It can quickly take away your creativity, so that you only work with AI and don't do anything yourself" (P.102)*, *"you forget to develop your own creativity and recognise your own weaknesses" (P.20).* For these students, doing the work themselves, even if slower or with more effort, was central to meaningful learning.

Another strong theme across many responses was the importance of authenticity. Students repeatedly stressed that homework should reflect one's own thinking and effort, not the output of a machine: *"It is not your own work, you are selling something from a programme as your own work" (P.13), "you don't do the task on your own and the ideas don't come from you" (P.39).* One student put it concisely: *"The tasks are designed to practise and recognise your own performance, not the performance of the AI" (P.127).* Several also objected to what they saw as an unfair advantage: "*by using ChatGPT you no longer do the tasks yourself and you also have an advantage over the other students" (P.59)*. These responses reflect a desire to gain outcomes honestly, through individual effort, and to be judged and evaluated fairly.

Finally, emotional responses such as guilt and discomfort were relatively common, even among those aware that GenAI was technically allowed in some cases: "*I think I would have a guilty conscience" (P.10); "It feels like cheating, even though we are allowed to use it in certain subjects" (P.112);* "*I know from myself that I feel a bit bad when I use AI for homework. Because if you research something yourself, then you are much deeper in the subject and know it better." (P.42).* One student summed up this tension like this: *"By using AI tools for homework, you're not only taking the piss out of the teacher, but also yourself" (P.89).*

Taken together, these responses reflect an internalised understanding of learning as an effortful and authentic process. For these students, the use of GenAI represents a potential threat to their values and their personal learning integrity.

2) Peer-oriented reasoning

Around 11% of respondents (18 out of 164) rejected the use of ChatGPT for homework because of concerns about peer inequity. Their reasoning centered on the injustice of GenAI use in assessment contexts, where students are graded individually but may not be competing on equal terms.

A core theme was the distortion of fair evaluation. Students worried that those who relied on GenAI could earn similar grades to those who had invested significantly more time and effort. This was seen as fundamentally unfair: *"It is very annoying if, for example, you have worked on an analysis for several hours and someone who has used AI for the analysis gets the same grade" (P.12),* "*there are people who put a lot of effort into their homework <..> and if some people do that with AI and get the same grade, it's unfair" (P.27),* "*since the teachers don't know who does homework with Chatgpt and who doesn't and they are graded on their performance, I think it's unfair to those who put effort into the homework" (P.1).*

Students described this perceived imbalance as demotivating and frustrating for those who value genuine effort and independent thinking: "*what I work for, others make it easy for themselves*" *(P.10); "I don't think it's fair to the students who have done their homework carefully <…> they are frustrated to have put any time into their homework at all" (P.66), "I think it's unfair if you put effort into the tasks and then others simply do nothing" (P.123).*

One respondent explicitly connected peer behavior with disobedience of rules, further reinforcing the unfairness: *"Because some teachers explicitly forbid this, I don't think it's good that some classmates still do their homework with ChatGPT" (P.130).* Others echoed this concern, pointing to widespread but unregulated use among peers, regardless of teacher guidance: *"I know from many people that they do it anyway, even without our teacher explicitly allowing or forbidding it" (P.7).*

Another layer of concern involved inequity in access and usage ability. Some students feared that GenAI tools might amplify existing educational inequalities, benefiting those with better digital skills or access: "*Students who do not (cannot/may/want to) use AI are at a disadvantage" (P.53), "not everyone can handle it equally well or use it at all" (P.104).*

Taken together, these responses reflect a strong peer-oriented ethical stance, grounded in principles of equal opportunity. While not necessarily opposing GenAI use on principle, these students objected to its uneven and sometimes rule-defying use, which they believe could compromise equity in assessment and access.

3) Institution-oriented reasoning

A small group of respondents (5%, 9 out of 164) rejected the use of ChatGPT for homework because of perceived system-level misalignment, emphasizing its incompatibility with fair assessment and misalignment with the educational

purpose of homework. For these students, the problem does not lie in individual misuse, but in the structural impact of GenAI on educational processes, particularly teachers' ability to assess genuine student effort. They worried that GenAI undermines the credibility of grading and creates a mismatch between student output and teacher expectations.

One student noted, *"it's no longer fair for teachers to judge who is making an effort and who isn't" (P.9),* pointing to the erosion of teachers' evaluative authority. Others echoed this concern, highlighting how AI-generated work distorts comparative judgments: *"the teachers then compare the homework created using ChatGPT with that of others who do not use ChatGPT" (P.74).* Another added, *"the assessment is often difficult and unfair" (P.90),* while a further response emphasized the broader impact on the educational purpose of assessment: *"This helps neither them <students> nor the teachers, who really only want to determine the level of knowledge of the students" (P.130).*

Several respondents also emphasized that GenAI use contradicts the pedagogical function of homework: namely, to support individual practice, internalization of content, and active engagement. From this perspective, GenAI disrupts the formative purpose of assignments: *"this use does not fulfil the purpose of the homework" (P.132), "homework is also designed in such a way that you can and should do it without AI" (P.5), "the point of homework is to practise and internalise the subject, not to find the most appropriate question for AI chat" (P.36), "if everyone has their homework answered by the computer, then firstly homework no longer makes any sense, as you could just as easily leave it out" (P.66)*

Together, these responses reflect an inherently negative view on GenAI integration in education, grounded in concerns about the erosion of assessment fairness and the loss of alignment with educational purpose of homework.

Taken altogether, these responses frame the use of GenAI for homework as inherently unacceptable because it is seen to undermine core educational principles at multiple levels. On the individual level, it bypasses personal effort and compromises learning integrity; on the peer level, it introduces unjust advantages; and on the institutional level, it challenges the validity of assessment and the educational purpose of homework.

E. Ambivalent Reasoned Views: Conflicted Judgments

Some students articulated internally conflicted context-dependent reasoning in their responses. These students often acknowledged both functional benefits and ethical concerns. Often these students ticked *"I am not sure"* (undecided category) in closed-ended question. Although their open-ended responses were coded within the main categories (especially under "conditionally acceptable"), they are noteworthy for the way they articulate ethical ambivalence. For instance: *"I think it always depends on how you use it <..> it can effectively help with many things. But you can also theoretically just have the solutions given to you so that you only have to transfer them. And because there is always this ulterior motive that you can also cheat, I would tick both of these answers if I could" (P.85)*, "*if the homework is assessed, it is unfair if you use AI to help you because the work is not your own <..> On the other hand, it's helpful for preparing for class" (P.149), "I struggle between the answers of two and three as it is not encouraged at our school to do homework with ChatGPT or similar. Therefore, it feels like cheating, even though we are allowed to use it in certain subjects for certain tasks." (P.112).*

These comments are presented here to honor the respondents' own framing of ambiguity. Together, these responses highlight the complexity of students' evaluative processes. These cases illustrate that adolescent ethical stances toward GenAI use are often not stable or absolute but situational, negotiated, multi-layered, and resisting simple binary classification

F. Non-Categorizable Responses

This final section presents views that do not fit neatly within the main reasoning categories discussed above. A small subset of responses (2%, 4 out of 164) did not contain sufficient ethical or functional reasoning to be classified within the core categories. One respondent voiced a general distrust of educational technology: *"I generally think very little of technology in school" (P.100).* This reflects a broad attitudinal stance rather than a specific argument related to GenAI use for homework. Three other students noted they did not or rarely use ChatGPT, offering no further justification: *"I don't use it myself" (P.95), "I only use it very rarely, about three times so far" (P.4), "I only use it occasionally in a targeted way" (P.29).*

These statements lack evaluative reasoning and were thus grouped as "non-categorizable responses."

VI. Discussion

This study explored how secondary school students ethically evaluate the use of ChatGPT for homework. While only a minority (12%) considered GenAI use inherently acceptable, most expressed either conditional acceptance (43%) or outright rejection (38%). Qualitative analysis of students' essays revealed three main dimensions of ethical reasoning: self-oriented**,** peer-oriented, and institution-oriented. These dimensions were combined into a Three-Layered Ethical Reasoning Model (Fig. 1), with each layer forming a continuum from inherently acceptable to inherently unacceptable stances toward GenAI use.

In parallel, we identified a functional reasoning track, where ChatGPT was framed primarily as a practical learning tool without direct ethical implications. This dual-track reasoning suggests that students' moral evaluations are often intertwined with pragmatic considerations, reflecting the complex interplay between ethics, utility, and educational context.

A. Layer 1: Self-Oriented Ethical Reasoning—Accountability and Integrity

The most prominent dimension, appearing in 75% of essays, was self-oriented reasoning, centered on *personal accountability* and *learning integrity*. While individual stances on acceptability and fairness varied, the underlying moral logic was shared here: students evaluated GenAI in relation to their own responsibilities as learners.

At the inherently acceptable end of the continuum, students embraced *personal learning autonomy*, framing GenAI as a legitimate resource to enhance comprehension,

generate new ideas, and support research. This position reflected a strong sense of ownership over the learning process and confidence in personal ability to self-regulate ChatGPT use. It reflects a libertarian ethos that favors minimal regulatory intervention and perceives learning as a matter of personal choice. This perspective aligns with Rogers' [82] ideas on self-directed learning, which advocate for minimal external control over students' educational experiences. Educational research also shows that students actively position themselves as decision-makers in managing digital tools, exercising learner agency by intentionally selecting, controlling, or resisting digital affordances to shape their own learning [83, 84].

In the conditional middle ground, students advocated for *responsible use*: ChatGPT was considered acceptable when applied intentionally, sparingly, and within clear boundaries to avoid dependency. They drew a clear line between using GenAI for clarification, idea generation, or structuring work (seen as acceptable), versus bypassing cognitive effort or engaging in plagiarism (seen as unacceptable). Several students compared GenAI to a tutor, appropriate for scaffolding complex tasks but not as a substitute for essential practice. This aligns with empirical findings showing that young people actively negotiate ethical boundaries around technological assistance, balancing learning utility with integrity [23, 32]. Additionally, some respondents emphasized the need to verify AI-generated content due to potential inaccuracies and falsifications – concerns echoed in the research literature [33, 35, 36].

At the inherently unacceptable end, students rejected ChatGPT use on the grounds that it was incompatible with *learning integrity*, as they believed it undermined authentic learning. Overreliance was seen as eroding creativity, independent thinking, and self-discipline – concerns reflected in Microsoft's [85] survey of U.S. students, where fear of dependency ranked second only to fear of plagiarism accusations. These responses suggest an internalized ethical stance, where responsibility is defined less by institutional rules and more by personal values as learners. Students expressed fear that ChatGPT use might undermine their learning, resonating with research indicating that excessive reliance on AI can weaken critical thinking, individual learning skills, and intellectual independence [8, 29–31].

B. Layer 2: Peer-Oriented Ethical Reasoning—Fairness and Transparency

Approximately 25% of students framed their views on fairness of ChatGPT use through peer-oriented ethical reasoning, emphasizing *interpersonal fairness* and *distributive justice*. This perspective reflected students' awareness of the social dynamics surrounding GenAI use, including concerns about transparency, cheating, and equitable access. Students evaluated ChatGPT use in terms of whether it created fair opportunities for all learners and preserved the integrity of grading.

At the inherently acceptable end of the continuum, students viewed GenAI use as ethically fair because they perceived it as providing *equal learning opportunities* for all learners and offering additional academic support to peers who lacked other forms of assistance.

In the *conditionally acceptable* stance, students emphasized the importance of *transparency grounded in shared norms and rules*. They argued that GenAI use should be disclosed, clearly indicated, and aligned with school rules and mutually agreed standards. This aligns with broader calls for explicit transparency in the use of AI-generated content [86].

At the *inherently unacceptable* end, students rejected ChatGPT use due to its perceived potential to create *unfair advantages*, particularly when those using GenAI achieved similar or better grades than peers who invested significantly more effort, resulting in *assessment inequity*. While students supporting inherently acceptable position emphasized equal access, this group highlighted *access inequities*. They argued that disparities in skill, digital literacy, or availability of ChatGPT could exacerbate existing inequalities, meaning GenAI use for homework might widen the digital divide. This aligns with research warning that GenAI tools may intensify existing inequities [22, 87]. The perspectives expressed here also resonate with *deontological ethical reasoning*, where principles such as fairness and justice take precedence over purely consequentialist considerations like potential benefits of ChatGPT, such as efficiency and performance gains.

C. Layer 3: Institution-Oriented Ethical Reasoning—Legitimacy and System Fit

The third, and least frequently mentioned, dimension of ethical reasoning, appearing in 19% of responses, was institution-oriented ethical reasoning. Here, students evaluated GenAI use through the broader lens of system-level legitimacy and adaptation. Rather than focusing on personal accountability or peer-level fairness, they assessed whether school policies were keeping pace with technological change. This perspective positioned students not just as users of GenAI, but as actors embedded within an educational system that may or may not align with new technological realities. In this layer, ethical concepts such as transparency, accountability, and fairness were intertwined, highlighting their interdependence in systemic considerations.

At the inherently acceptable end, some adolescents highlighted the potential of GenAI to support teachers and improve instructions. This view aligns with Luckin *et al*. [88], who argue that *"we do not see a future in which AIED replaces teachers. What we do see is a future in which the extraordinary expertise of teachers is better leveraged and augmented through the thoughtful deployment of well designed AIED*".

The conditionally acceptable stance centered on *institutional legitimacy* – the importance of clear rules and teacher guidance. A recurring concern was the lack of clear and consistent policy: inconsistent or absent rules created discomfort and uncertainty. Students called for explicit school policies to ensure fairness. Under this view, GenAI could be acceptable if regulated in ways that ensured consistent application and equal treatment. This aligns with research emphasizing the importance of clear and consistent regulation of AI in education [43, 45] and the recognition of persistent gaps in current regulation [76]. In this perspective, acceptability is framed not as an individual choice but as a collective agreement – a form of social contract grounded in

institutional clarity and system alignment.

At the inherently unacceptable end, students rejected ChatGPT use due to its perceived incompatibility with fair assessment and the educational purpose of homework, which they saw as implying practice and revision of school material. Ethical tension emerged from situations where students were evaluated equally, regardless of whether they used GenAI, particularly in the absence of clear guidance. These responses underline the need for educational systems to adapt – not only to introduce clear rules and enforce their compliance but also to adapt meaningfully to technological change.

D. Situating the Three-Layered Ethical Reasoning Model within Moral Development Theory

The Three-Layered Ethical Reasoning Model proposed in this study can be meaningfully situated within classical frameworks of moral development [72–75]. Different stages of Kohlberg's theory of moral development [73] help to interpret the identified layers.

The dilemmas teenagers face at the self-oriented layer align with emerging *postconventional reasoning*. Here, students evaluate the use of GenAI through the lens of personal accountability, autonomous decision-making, and learning integrity, distinguishing responsible use for idea generation or scaffolding from overreliance that could undermine creativity or critical thinking skills. The inherently acceptable stance reflects autonomous reasoning grounded in individual choice, where the self serves as the primary moral authority rather than external norms. Although this authority is self-referential rather than grounded in universal ethical principles, students begin to question rules and assert personal principles typical of Stage 5 (social contract orientation) of Kohlberg's framework. At the inherently unacceptable end, students demonstrate principled self-regulation guided by internalized values about personal honesty and intellectual development, aiming to preserve moral and intellectual integrity. This reasoning reflects an internalized ethical stance in which acceptability is determined by adherence to conscience rather than external approval, aligning with Stage 6 (universal ethical principles). By prioritizing personal responsibility and principled judgment, students demonstrate postconventional moral reasoning, highlighting their capacity to act as autonomous ethical agents within educational contexts.

The reasoning associated with the peer-oriented layer corresponds primarily to the *conventional reasoning level* of Kohlberg's framework - Stage 3 (interpersonal relationships) and stage 4 (maintaining social order). In this layer, students focused on equity, empathy, transparency, distributive justice, and interpersonal fairness, assessing whether GenAI provided equal opportunities for all students, particularly regarding access and evaluation. They highlighted concerns about interpersonal trust, equitable access, and fairness in grading. Students emphasized the importance of shared norms and school rules to maintain fairness and social harmony – reasoning typical of Stage 3, which centers on interpersonal accord and conformity, and Stage 4, which emphasizes authority and maintaining order. At Stage 3, moral reasoning is guided by the desire to sustain fairness, positive relationships, and mutual respect among peers, as seen in students' views that GenAI is ethically acceptable when it ensures equal opportunities and supports peers lacking other resources. Stage 4 reasoning appears when students stress transparency grounded in common norms and policies, reflecting their recognition that fairness depends on consistent standards to prevent inequity. At this layer, teenagers stress that GenAI use should be grounded in mutual agreements that protect fairness for all.

The *system-oriented layer* reflects *postconventional reasoning* and aligns with Stage 5 (social contract orientation) of Kohlberg's theory. Here, students evaluated GenAI use in terms of its potential to improve the educational system, its institutional legitimacy, and adaptability of school policies. Ethical acceptability here revolves around system-level fairness. Students emphasized institutional legitimacy, collective agreement, and the need for transparent and fair systems – core features of Stage 5 reasoning, where morality is based on mutual agreements and social contracts designed to uphold justice and fairness. Teenagers' discussions of transparency, accountability, and fairness illustrate abstract, principle-based moral reasoning typical of postconventional thought. Their reflections on institutional adaptation to technological change and their calls for fair and consistent policies demonstrate mature moral reasoning. From Rest's perspective [72], this progression reflects adolescents' growing moral sensitivity and moral judgment, as ethical reflection expands from personal considerations to collective accountability, fairness, and transparency.

Overall, the Three-Layered Ethical Reasoning Model illustrates how students' moral reasoning about GenAI use is distributed across self-oriented, peer-oriented, and system-oriented ethical domains corresponding to the conventional and postconventional levels in Kohlberg's framework. This multi-layered model shows how adolescents navigate the ethical use of emerging technologies by addressing self-responsibility, peer fairness, and institutional legitimacy.

E. The Role of Functional Framing and Quantitative Insights

A substantial proportion of students (34%) explained the fairness of ChatGPT use through a functional lens, emphasizing its instrumental and pragmatic benefits. These included immediacy, ease of access to information, and support with homework or exam preparation. The benefits identified by adolescents closely mirror those outlined in the 4I Model of Benefits [28], which highlights *Information, Inspiration, Improvement,* and *Immediacy*. These findings also align with broader survey data: in a study of 14-22-year-olds, the most commonly reported uses of GenAI were for obtaining information (53%) and brainstorming (51%) [15]. Similarly, a survey of U.S. university students found that GenAI is most frequently used for assistance with assignments, generating ideas for papers, and developing original ideas [49].

While many students articulated explicit ethical concerns others engaged with GenAI from a predominantly utility-based perspective, focusing on its supportive role in high-pressure, performance-oriented school environments. This functional framing is significant for two reasons. First, it reflects students' lived realities, including performance expectations, time constraints, and grade pressures. Second,

it reveals that ethical reasoning is not always foregrounded in teenagers' arguments. In some cases, students adopted a value-neutral stance, viewing GenAI as "*just a tool*". Importantly, many students exhibited hybrid reasoning: they recognized the utility of GenAI while simultaneously acknowledging potential ethical boundaries. This suggests that students' perspectives are not divided into separate ethical and functional camps, but instead shift fluidly depending on context and purpose.

VII. Implications

The proposed Three-Layered Ethical Reasoning Model offers a clear structure for understanding adolescents' ethical reasoning around GenAI use. It extends moral development theories to GenAI-related decision-making and proposes a contextual framework for analyzing ethical reasoning across self-, peer-, and institution-oriented dimensions. This model can serve as a foundation for future research on AI ethics in education, and student agency in technology use.

Our findings indicate that teenagers' reasoning is layered, situated, and context-dependent. While the three layers emerged as analytically distinct, they often overlapped in individual responses. For instance, a single student might express a personal commitment to responsible use (self-oriented), concern about peer fairness and cheating (peer-oriented), and frustration over inconsistent grading practices (institution-oriented).

This multi-level ethical reasoning shows that students are capable of thinking beyond individual utility and recognize broader ethical challenges arising from the rapid adoption of GenAI in educational settings. Rather than holding fixed moral positions, many adolescents actively navigate tensions within personal accountability, peer fairness, institutional legitimacy, and practical utility dimensions, adapting their stance depending on the situation and their moral principles.

Taken together, these findings add to the emerging literature on students' moral engagement with AI in education [23, 26, 32]. Adolescents' perspectives are neither naïve nor one-dimensional; instead, they reflect active negotiation on three interconnected levels. This complexity provides valuable insights for educators, policymakers, and AI literacy designers seeking to develop approaches that acknowledge and engage with students' ethical reasoning.

Our findings highlight the importance of adopting a conditionally acceptable stance as a guiding perspective to ensure that ChatGPT supports rather than hinders the learning process:

- At the individual level: Promoting responsible use

Pedagogical approaches to GenAI should integrate *both* functional and ethical dimensions. While many students already articulate personal norms around responsible AI use, literacy programs should strengthen this reflective capacity – combining technical competence with explicit engagement in ethical reasoning.

Several students in our study highlighted the importance of developing GenAI competencies to prepare for technologically saturated future. The research highlights the importance of educating adolescents on how to craft appropriate prompts for AI tools like ChatGPT to achieve desired outcomes [11, 89]. Abdelghani *et al*. [11] found that while students' self-reported understanding of ChatGPT was high, their ability to craft effective prompts and evaluate responses was comparatively weak, underscoring the necessity for AI literacy interventions. They also emphasize the importance of fostering question-asking strategies to strengthen critical engagement with AI outputs.

Surveys indicate that young people are already aware of the significance of AI skills. More than one-third of adolescents believe GenAI will affect their lives both positively and negatively within the next decade [15]. Similarly, Microsoft's *Special Report 2025: AI in Education* found that 82% of U.S. students agree that *"knowing how to use AI effectively and responsibly is important for my future"* [85].

At the university level, similar patterns emerge. Chen *et al*. [49] reported that students express a clear need for explicit guidance in courses and for transparent institutional policies on ethical and appropriate use of GenAI. Together, these findings reinforce the need for GenAI literacy programs that integrate ethical reflection and technical skills to prepare students for responsible and effective AI use.

- At the peer level: Fostering transparent peer practices

Fairness in GenAI use is inherently social. Students' reasoning shows that questions of fairness, transparency, and equitable access cannot be addressed solely through top-down policies – they require active participation from the student community. Schools should therefore create participatory processes where students are invited to reflect on, discuss, and co-develop rules and norms around GenAI use.

Clear, co-created policies can increase both transparency and legitimacy, ensuring that regulations are not perceived as externally imposed but as shared agreements. Educators and policymakers must attend not only to *what* students think about GenAI, but also to *how* they think, recognizing that their ethical reasoning is often layered, context-sensitive, and sophisticated. Co-designing guidelines with students respects these values while also reinforcing equitable and responsible integration of GenAI into the learning environment.

- At the institutional level: Ensuring legitimacy

Institutional guidance plays a decisive role in shaping students' ethical comfort with GenAI use. Ambiguity from schools does not create freedom – it creates uncertainty. Clear, coherent, and consistently applied policies are essential for aligning students' moral reasoning with institutional expectations.

Policies should be transparent and inclusive, reflecting not only regulatory concerns but also student perspectives. Institutions should adapt assessment and instructional design to meaningfully integrate GenAI, rather than simply prohibit or ignore its presence. Modernizing curricula and evaluation practices to account for AI's capabilities can help align educational objectives with contemporary technological realities.

From an academic integrity perspective, robust detection tools may play a supportive role in safeguarding assessment practices. Previous research has highlighted both the risks of academic dishonesty associated with GenAI and the parallel need to enhance digital literacy and implement effective detection measures [8]. Together, these steps can ensure that institutions maintain fairness, trust, and relevance in a rapidly evolving, technology-saturated landscape.

VIII. Conclusion

This study explored how German secondary school students reason about the fairness of using GenAI tools, specifically ChatGPT, for homework. Moving beyond binary judgments of acceptable versus unacceptable use, our findings reveal a complex and layered picture of adolescents' ethical reasoning. Based on the analysis of students' essays, we developed *a Three-Layered Ethical Reasoning Model* that captures perceptions of fairness across self-oriented, peer-oriented, and institution-oriented dimensions. The model illustrates how students navigate issues of personal accountability, learning autonomy, and learning integrity; reason about peer equity and transparency; and question institutional legitimacy.

Taken together, our findings suggest that GenAI integration in education cannot rely solely on rule enforcement or technological control. It must also engage with students' values, reasoning, and lived realities. By foregrounding adolescent voices, this study provides a grounded, student-informed understanding of GenAI use in education. In light of these insights, schools should regulate and support GenAI use in ways that foster meaningful and responsible engagement with the technology, ensure transparency and clear guidance, and address ethical dimensions collaboratively with students.

While this study offers important insights into how teenagers reason about the fairness of using GenAI for homework, several limitations must be acknowledged.

First**,** our sample, though geographically diverse across Germany, consisted exclusively of students from grammar schools who voluntarily applied to an extracurricular adventure education program. This purposive sampling likely reflects a more academically engaged and motivated subset of students, thereby limiting the broader applicability of our findings to secondary education as a whole. The perspectives of students from other educational tracks may differ. Future research should therefore include students from diverse school types and less self-selected populations to enhance generalizability.

Second, the study relied on self-reported survey responses, which may be subject to social desirability bias as students might wish to present themselves in a favourable light, especially regarding academic integrity and GenAI use. Teenagers' stated ethical positions may therefore not fully correspond to their actual use of AI tools. Ethnographic observations or digital activity logs could provide a more contextual understanding of GenAI usage in practice. Besides, students' answers varied in length; while main patterns were robust, richer qualitative data (e.g., through focus groups or in-depth interviews) could further illuminate complex dynamics and tensions in adolescent ethical reasoning about GenAI.

Third, this study focused specifically on the use of ChatGPT for homework. Future work could expand this scope to include other educational contexts, such as test-taking, project work, or classroom interactions, and examine how students' ethical reasoning shifts across different academic activities or GenAI tools.

Finally, our Three-Layered Ethical Reasoning Model offers a valuable conceptual structure, but its applicability in other cultural, institutional, and age-group contexts remains to be tested. Furthermore, longitudinal designs could explore how adolescent reasoning evolves over time or varies in response to changes in school policies.

While the present study focused specifically on teenagers' ethical reasoning regarding GenAI use at home, school policies and classroom practices may indirectly shape these views and behaviors beyond school settings. Peer attitudes and parental regulation may further contribute to this diversity. These potential influences represent an important direction for future research.

Future work could also examine how ethical reasoning interacts with students' actual behavior and established school norms. Investigating how students make decisions in various settings, and especially in situations of high academic pressure, could provide critical insights into the alignment between ethical awareness and practical action.

Conflict of Interest

The authors declare no conflict of interest.

Author Contributions

Zinaida Adelhardt was responsible for the conceptualization of the study, research design, data analysis, and manuscript writing. Thomas Eberle contributed to the research preparation, data collection, and critical review of the manuscript. Both authors read and approved the final version of the manuscript.

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