The Use of Artificial Intelligence by Students: A Tool for Support or Passive Reproduction?

Researcher Information

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Introduction – Theoretical Framework

The rapid spread of Artificial Intelligence (AI) now directly affects school study. Tools such as ChatGPT and Google Gemini are used by students of all levels. A concern arises: does AI enhance or undermine critical and creative thinking? It is necessary to study the ways of use and its pedagogical impact.

Research Questions

1. To what extent and in what way do secondary education students use AI tools for studying and completing school assignments?

2. For which subjects do students find AI tools most useful and what types of support do they seek from them?

3. What is students' perception regarding the contribution of AI tool usage to content comprehension, the development of creative/critical thinking, and learning autonomy?

4. How do students assess the potential long-term impact of using AI tools on their personal thinking, critical ability, and academic performance?

Methodology – Pilot Phase

- Method: Quantitative research with a questionnaire
- Sample: 27 middle and high school students (pilot phase)
- Time: June 2025
- Tool: Google Forms
- Objective: Testing questionnaire validity & initial indications of research axes

The Questionnaire

20 closed-ended questions (multiple choice & Likert scale 1–5)

Axes:

- Frequency and types of AI use
- Perceived assistance – understanding/copying
- Subjects and purposes of use
- Pedagogical autonomy – future impact

Results Analysis

- All students have used AI (mainly ChatGPT)
- Most frequent use: Essay writing, History, Mathematics
- Uses: ideas, explanations, solutions, correction
- The students report moderate understanding through AI (Average = 2.8)
- Many copy without processing
- 60% believe AI negatively affects critical thinking

Conclusions

- Students integrate AI into their study, especially for theoretical subjects
- Usage varies: from help with understanding to passive copying
- There is a need for pedagogical reflection and guidance
- AI is not inherently "good" or "bad" – what matters is how it is used

Research Prospects

- Analysis by gender, grade level, academic performance
- Correlation between AI use and learning autonomy
- Expansion of the sample to more schools
- Cross-curricular utilization in digital literacy

Acknowledgments / Questions

Thank you for your attention

Appendix: The Questionnaire

- Have you ever used an AI tool for schoolwork?
- How often do you use AI for your studying?
- Which tool do you use most frequently?
- For which subjects do you use it?
- For what purposes?
- Do you believe you understand the material better through AI?
- Do you think you copy solutions without understanding them?
- Do you believe teachers view AI use positively or negatively?
- Do you think AI use will affect your future critical thinking?
- Have you changed the way you study because of AI?