Artificial Intelligence in Sports Studies

Insights from a Quantitative Survey among Sports Students in Germany
about their Perceptions, Expectations, and Concerns
regarding the Use of AI Tools

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Free access to the AIS-study in the
online repository of the University of Münster
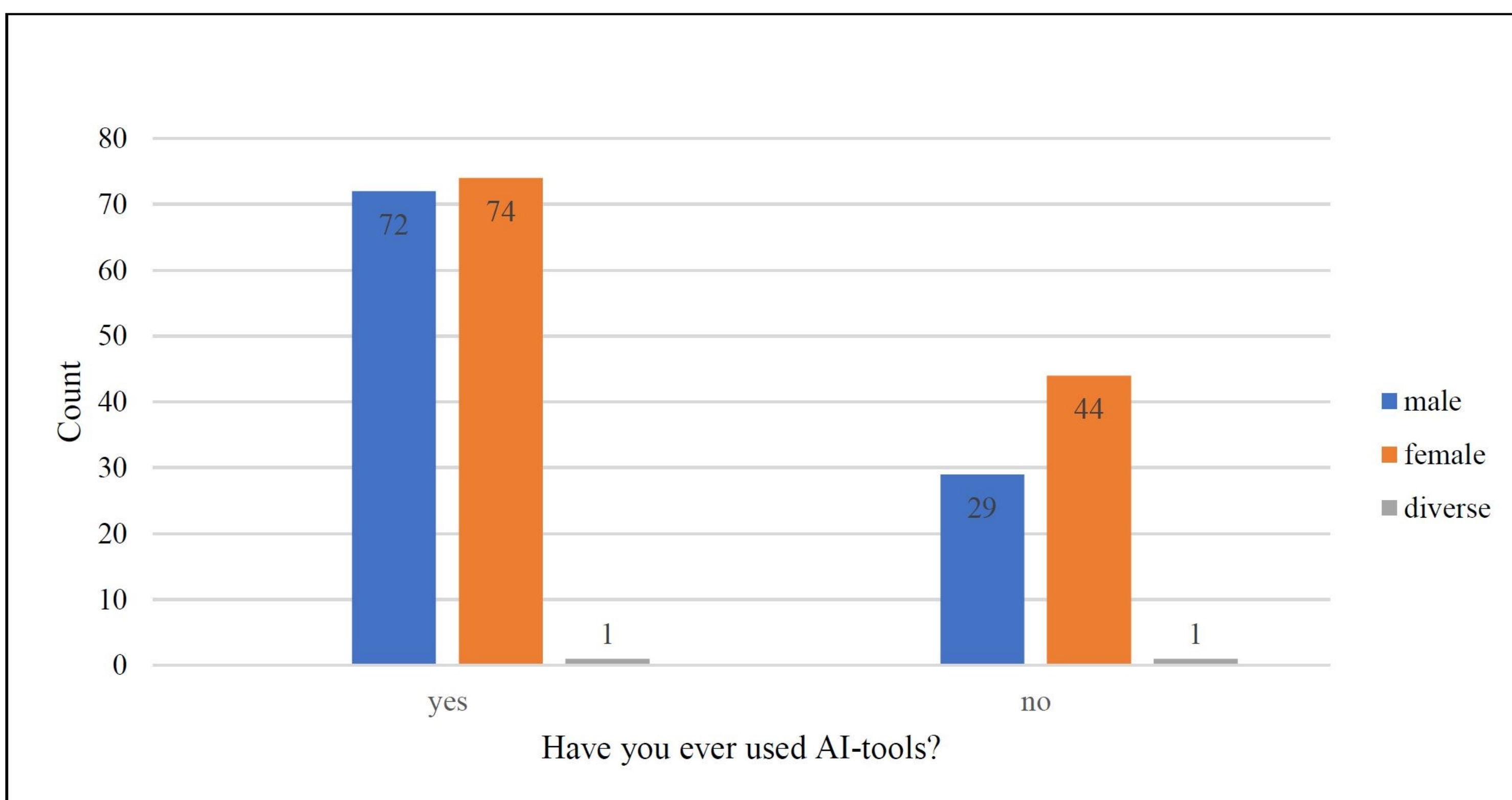
BACKGROUND

- Generative AI tools have a crucial impact on academic research and teaching.
- Empirical data on how students perceive the growing influence of AI, the types of AI tools they use for which daily academic tasks, and their concerns about the use of AI in their studies is still limited.
- Influence of study program and the study situation on the use of AI tools in studies.

AIM OF THE STUDY

- Empirical study of student usage patterns, motivational factors and uncertainties when using AI tools during studies.
- Provide empirically based recommendations and make research open for further study.

SAMPLE

- Online questionnaire with 58 items, addressing 62 sports departments, including 262 students

Have you ever used AI-tools? (bar chart: yes — male 72, female 74, diverse 1; no — male 29, female 44, diverse 1)

General use of AI tools	n	percent
Every day	1	0.6
Several times per week	25	14.9
Once a week	19	11.3
One to three times per month	37	22.0
Less than one to three times per month	56	33.3
Never	30	17.9

[1] 168 out of 262 students responded to that question. The missing 94 cases consist of 81 participants who responded "no" to the question "Have you ever used AI tools?" at the beginning of the questionnaire. 30 stated that they have "never" used AI tools in their studies but have used them in other contexts. 13 did not respond to that specific question.

RESULTS

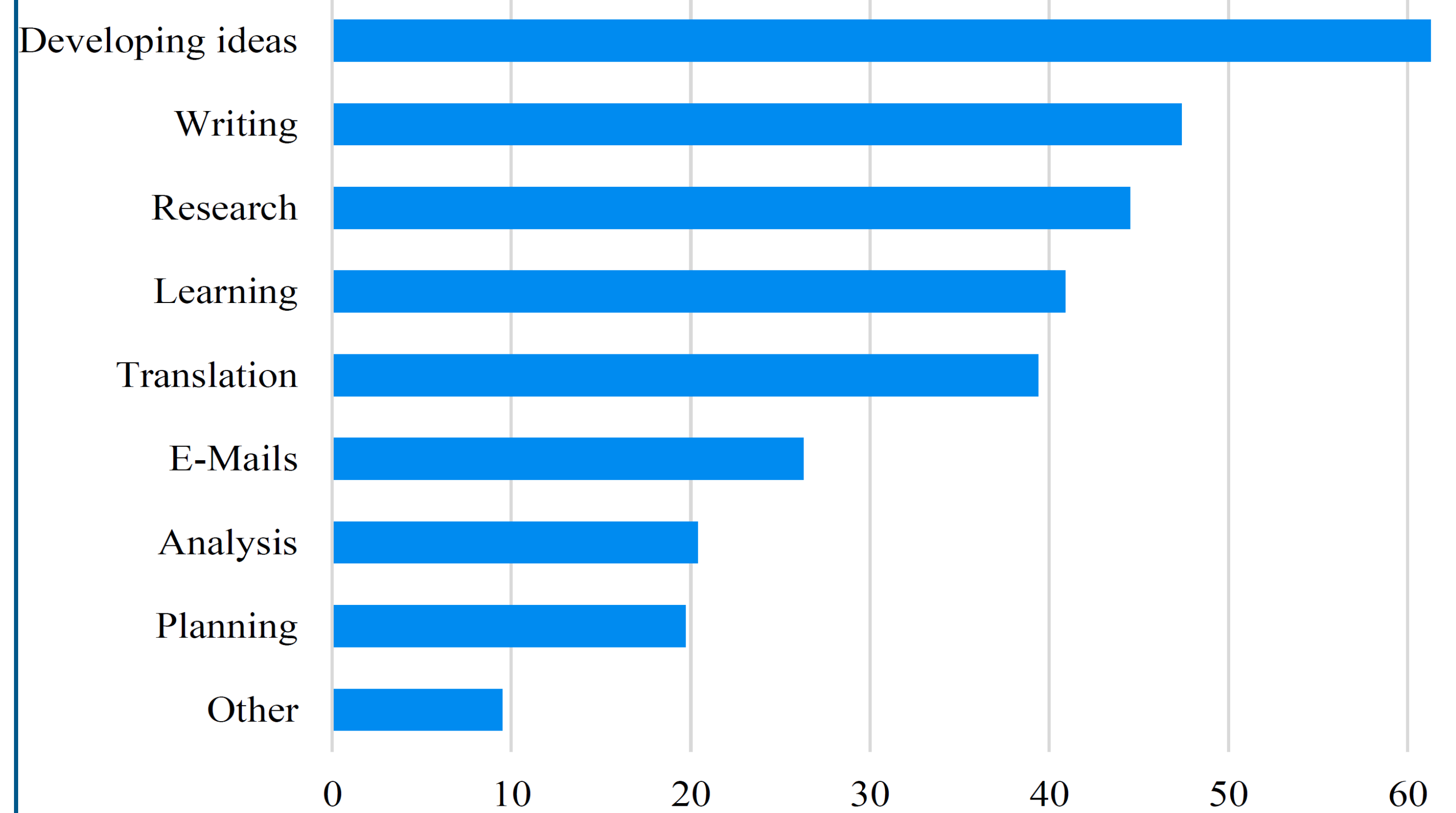**Figure 1: Application areas in studies**
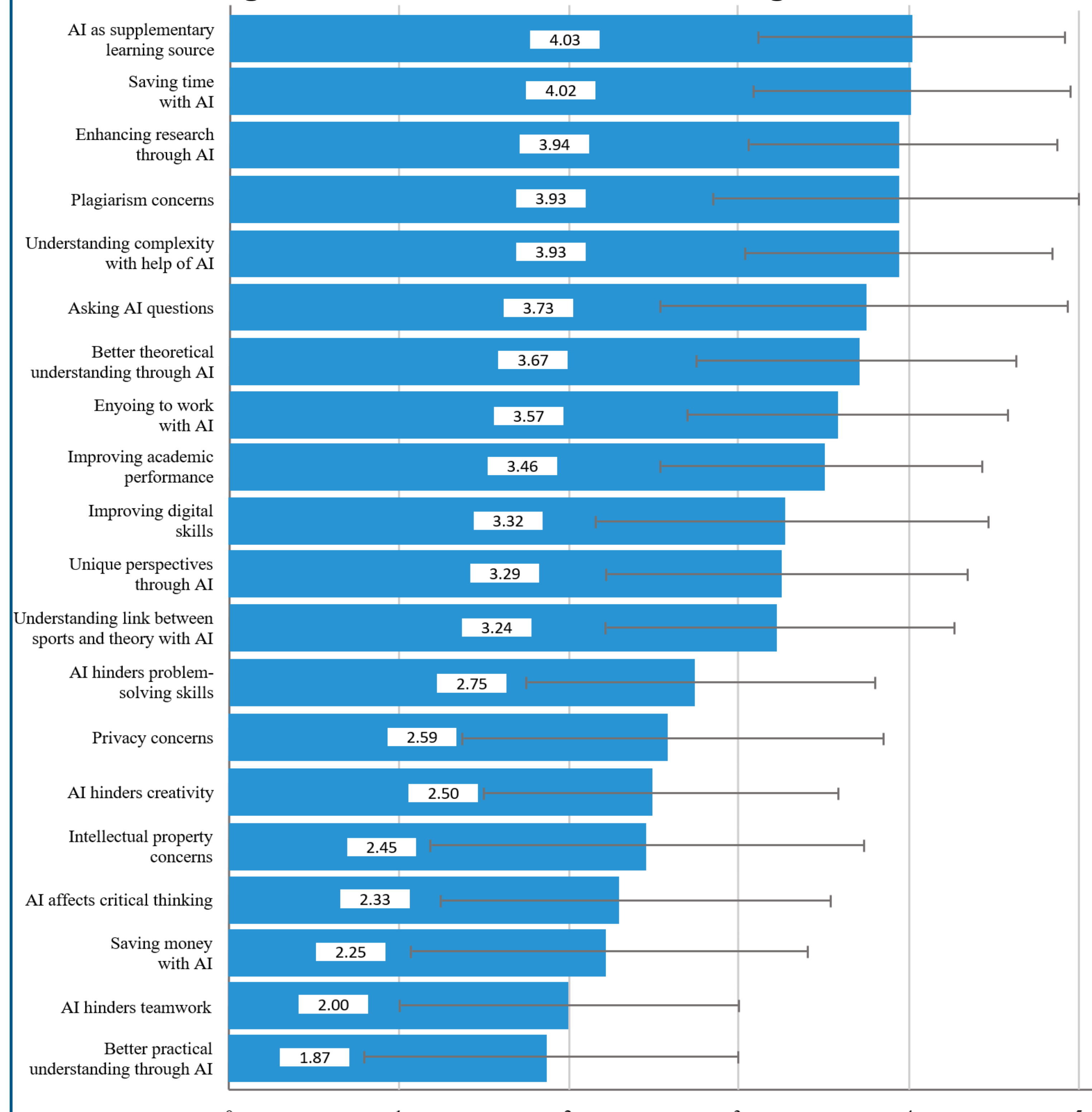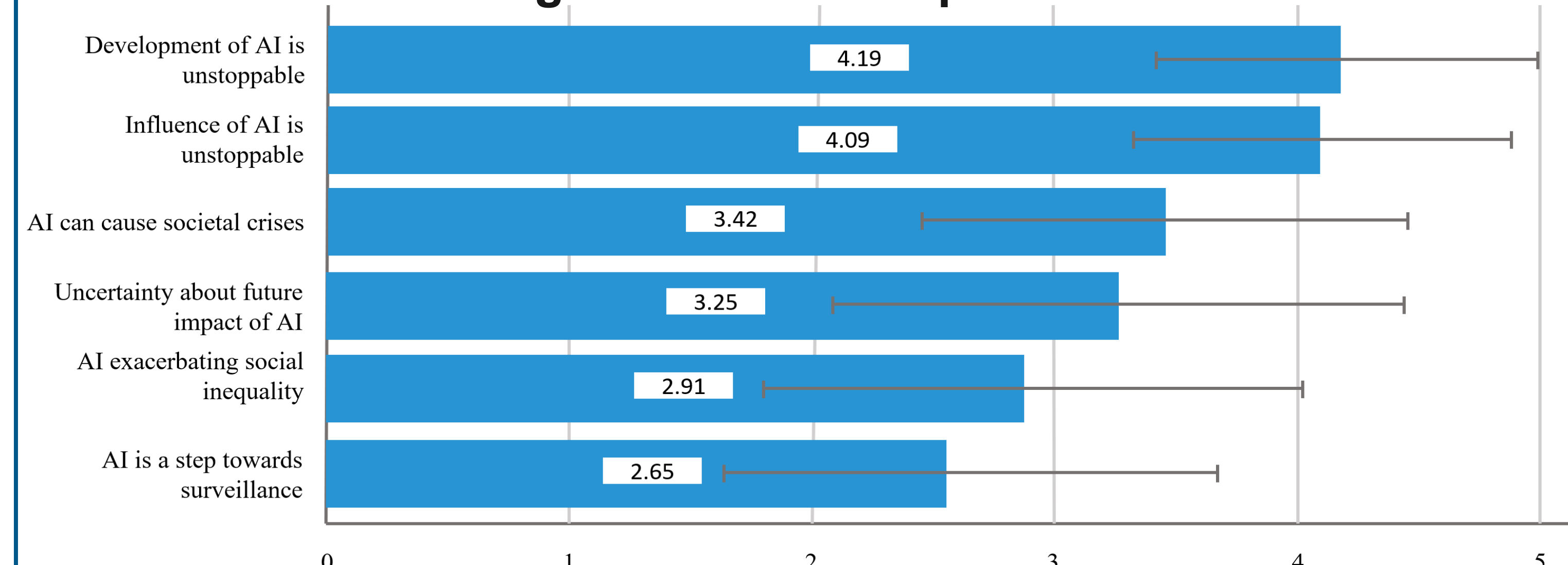

Figure 2: Overall motivation among students

AI as supplementary learning source	4.03
Saving time with AI	4.02
Enhancing research through AI	3.94
Plagiarism concerns	3.93
Understanding complexity with help of AI	3.93
Asking AI questions	3.73
Better theoretical understanding through AI	3.67
Enyoing to work with AI	3.57
Improving academic performance	3.46
Improving digital skills	3.32
Unique perspectives through AI	3.29
Understanding link between sports and theory with AI	3.24
AI hinders problem-solving skills	2.75
Privacy concerns	2.59
AI hinders creativity	2.50
Intellectual property concerns	2.45
AI affects critical thinking	2.33
Saving money with AI	2.25
AI hinders teamwork	2.00
Better practical understanding through AI	1.87

Figure 3: Future impact of AI

Development of AI is unstoppable	4.19
Influence of AI is unstoppable	4.09
AI can cause societal crises	3.42
Uncertainty about future impact of AI	3.25
AI exacerbating social inequality	2.91
AI is a step towards surveillance	2.65

CONCLUSIONS

- Students have a strong interest in integrating AI. They anticipate its increasing relevance in higher education, are confident that AI will not interfere with critical thinking, and support the integration of more AI-related topics and methods into their curriculum.
- At the same time students believe that AI can produce misinformation and distort perceptions. They believe that AI-generated knowledge may not always be accurate and needs additional verification. Potential plagiarism is seen as one of the biggest uncertainties.

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