

# Acceptance of ChatGPT for teaching related activities among academic community

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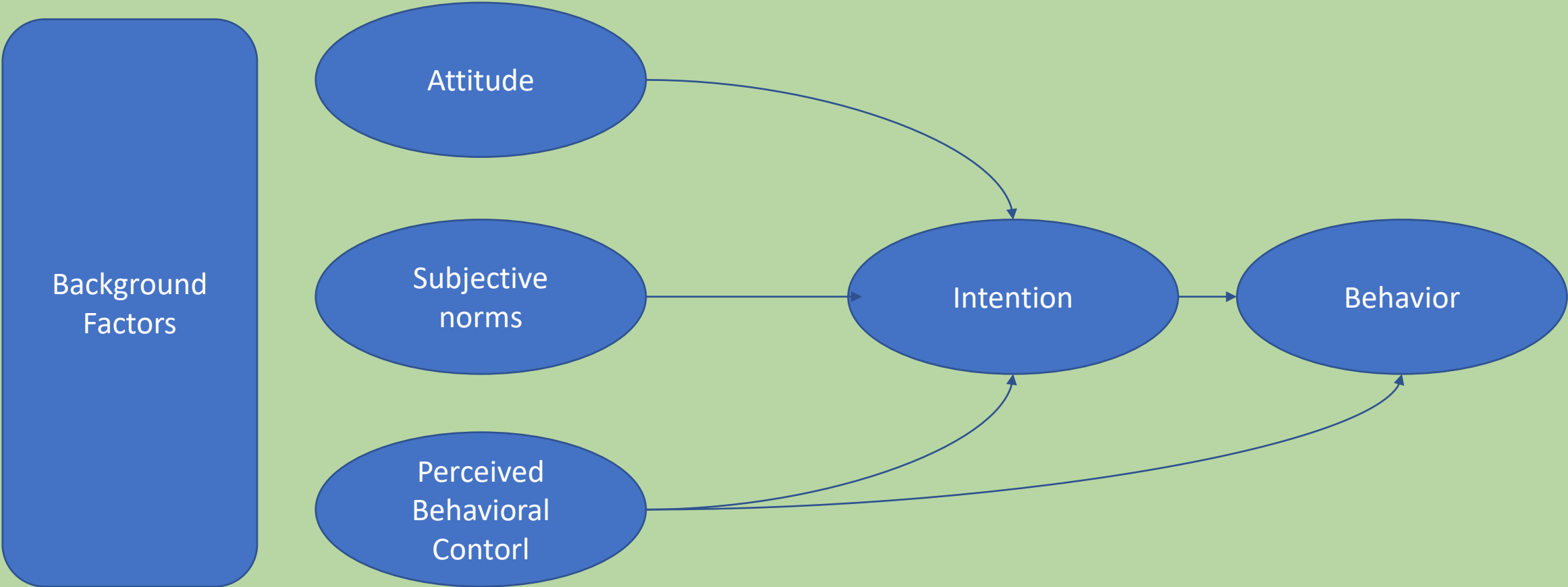
# Theoretical background

- Diversity in measuring acceptance of technology
  - Theory of Reasoned action
  - **Theory of Planned Behavior – Ajzen (1990)**
  - Social cognitive theory
  - Technology acceptance Model
  - **The unified theory of acceptance and use of technology (UTAUT) – Venkatesh et al. (2003)**
  - .....

# TPB and UTAUT models

- TPB antecedents
  - Attitude toward the behavior
  - Subjective Norms
  - Perceived Behavioral control (akin to self-efficacy)
- UTAUT antecedents
  - performance expectancy,
  - effort expectancy,
  - social influence
  - facilitating conditions

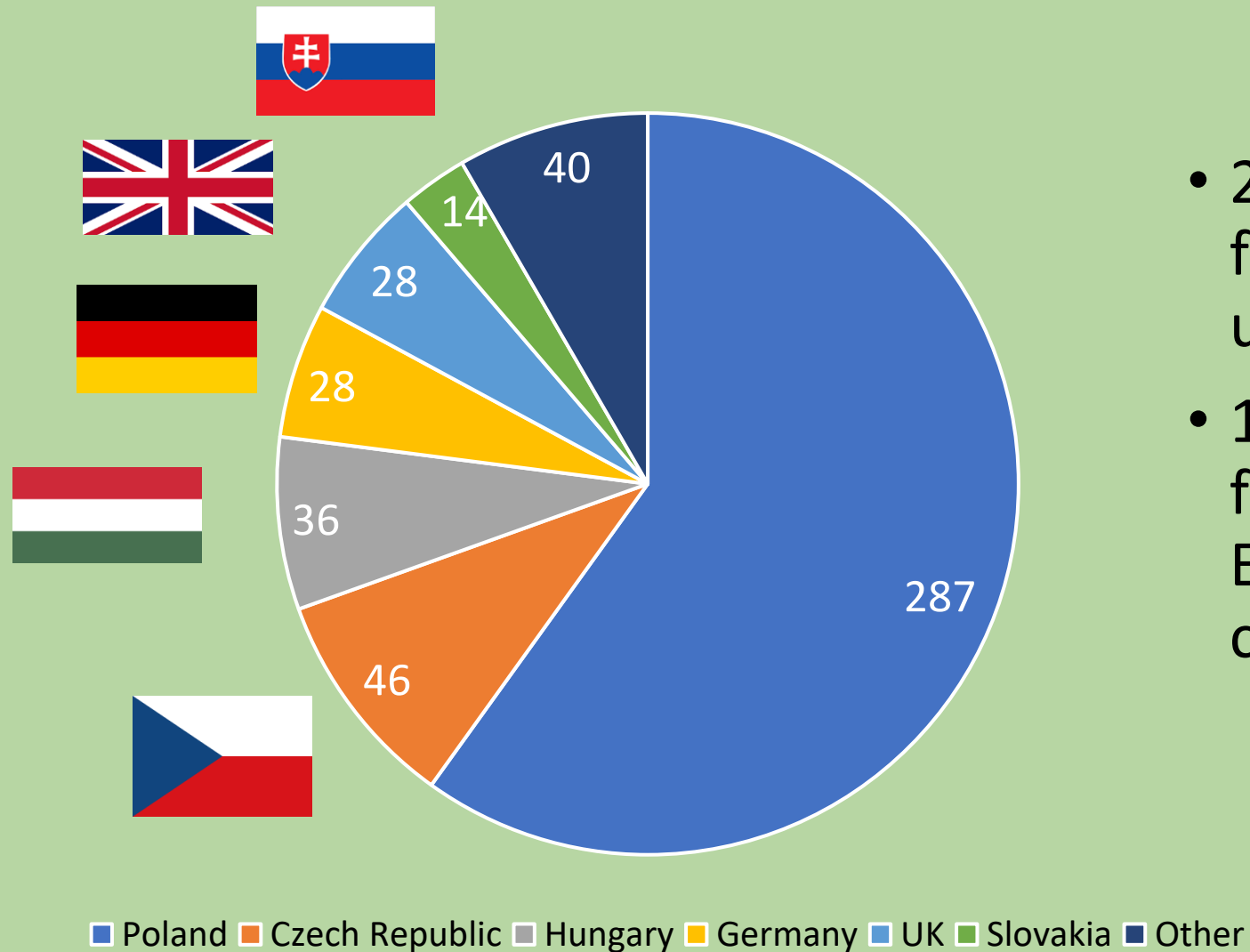
# Theory of Planned Behavior



# Empirical design

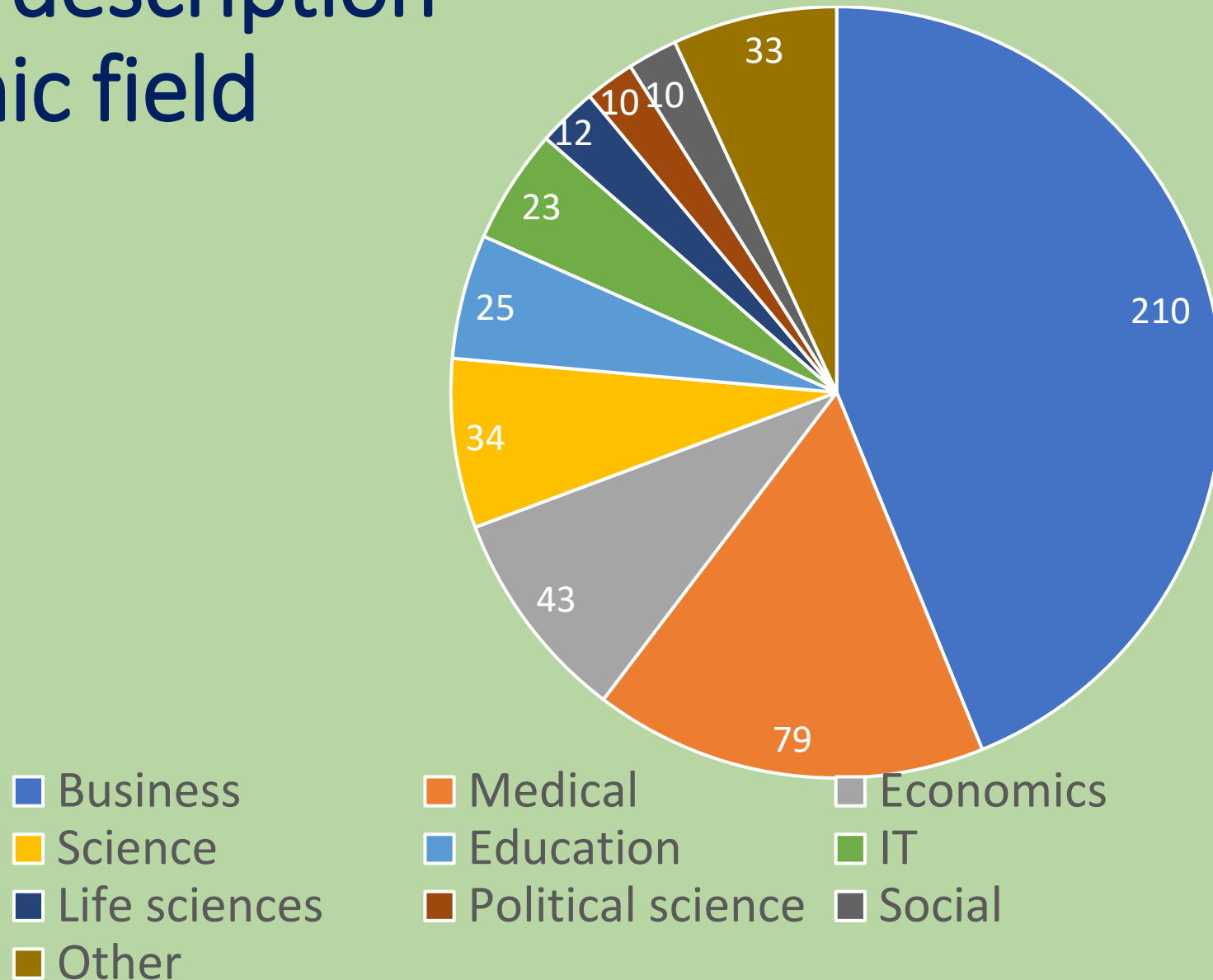
- Pilot study in May 2023
- Data collection between June and October 2023
- Online survey
- Convenience sample based on
  - publicly available data (University web pages)
  - in some cases with the support of University/Faculty authorities
  - personal request for sharing
- In total 479 usable responses

# Sample description - geographic coverage



- 290 responses from Poland (287 usable)
- 192 responses from other European countries

# Sample description – academic field



# Applied measures - TPB

- Behavioral intention
  - I intend to use ChatGPT in my teaching related activities within next 2 years
  - My goal is to use ChatGPT in my teaching related activities within next 2 years
- Attitude
  - Using ChatGPT for teaching related activities is a **good idea**
  - The use of ChatGPT can make **teaching related activities more interesting**
  - Working with ChatGPT can be **fun**
  - I can see many **benefits** of ChatGPT in **higher education**
- Self-efficacy
  - If I tried to apply ChatGPT to my teaching related activities, I would have a high **chance of success**
  - I am confident I can be **effective** in applying ChatGPT to my teaching related activities
  - I will be able to **successfully overcome the challenges** of using ChatGPT in teaching related activities
- Subjective norms (social influence) formative variable
  - My **university** supports and encourages the use of ChatGPT in teaching related activities
  - My **students** would approve of using ChatGPT for teaching related activities
  - My **colleagues** would support me in using ChatGPT for teaching related activities
  - Coverage of ChatGPT by **media** (or social media) encourages me to apply ChatGPT in my teaching related activities



# Measures – background factors (based on/inspired by Venkatesh et al. 2003)

- Anxiety

- I feel **apprehensive** about using ChatGPT
- I **hesitate** to use ChatGPT for fear of making mistakes
- ChatGPT is somewhat **intimidating** to me
- **Students will misuse ChatGPT**
- **Students will use ChatGPT for unethical purposes**

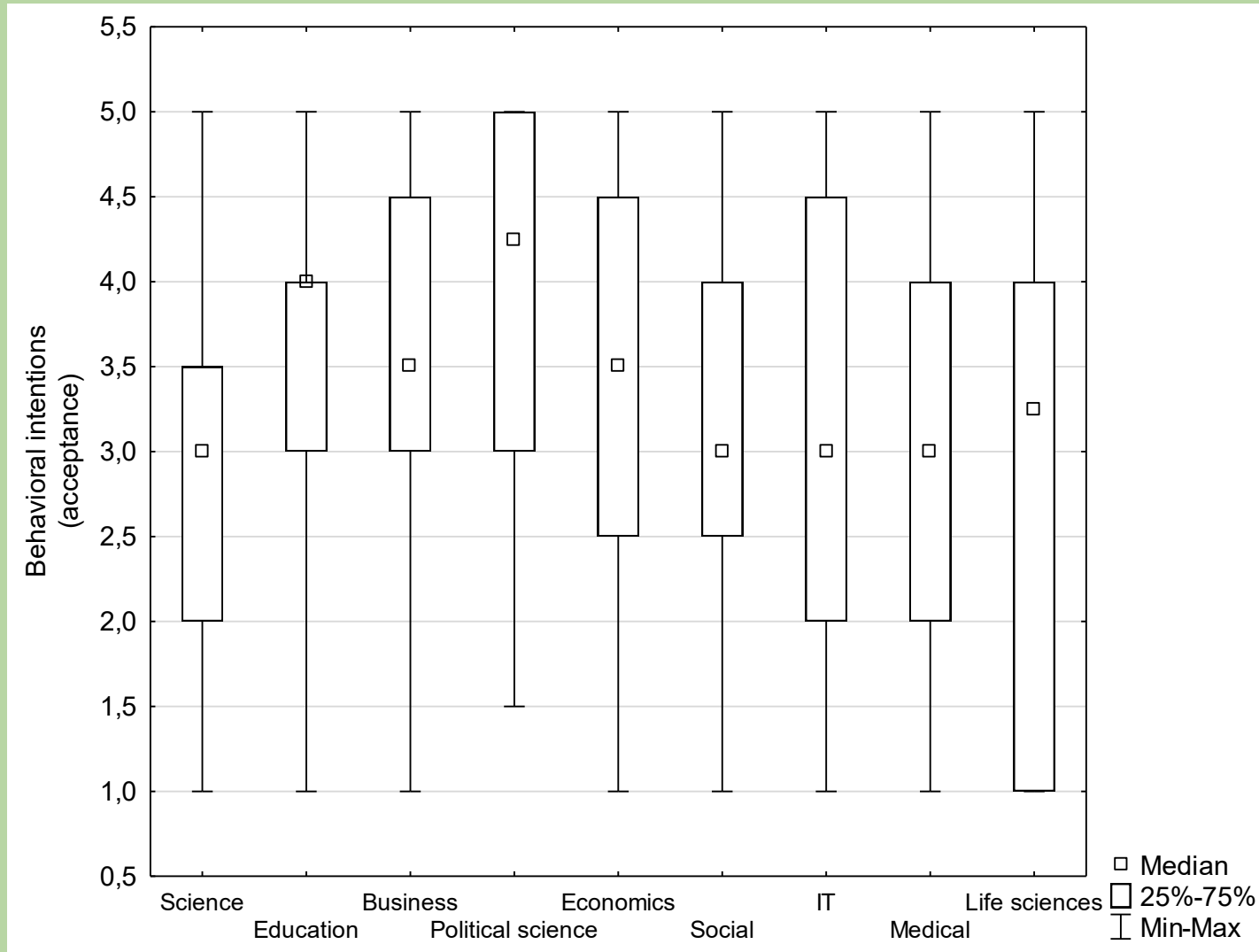
- Chat learning

- I have **started learning** about ChatGPT and its use for my teaching related activities
- I have attended **training, workshops, and conferences** to improve my knowledge and skills in using ChatGPT in my teaching related activities

- Exposure to Chat

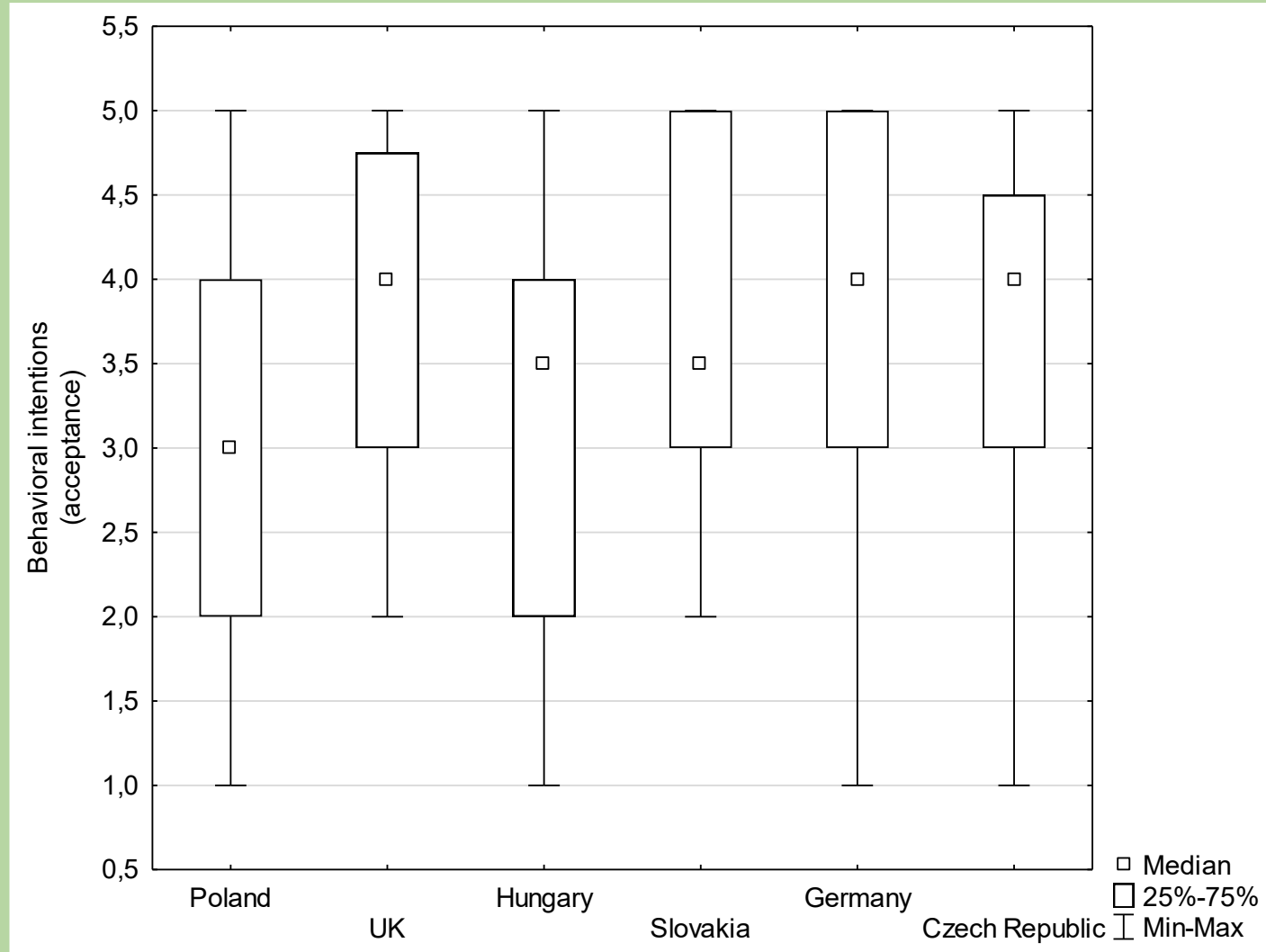
- If Have you ever used ChatGPT for **research purposes** (i.e. developing research studies)?
- I am confident I can be effective in applying ChatGPT to my teaching related activitiesHave you ever used ChatGPT (**for**) **other purposes**?

# Intention to use Chat GPT: comparison of fields



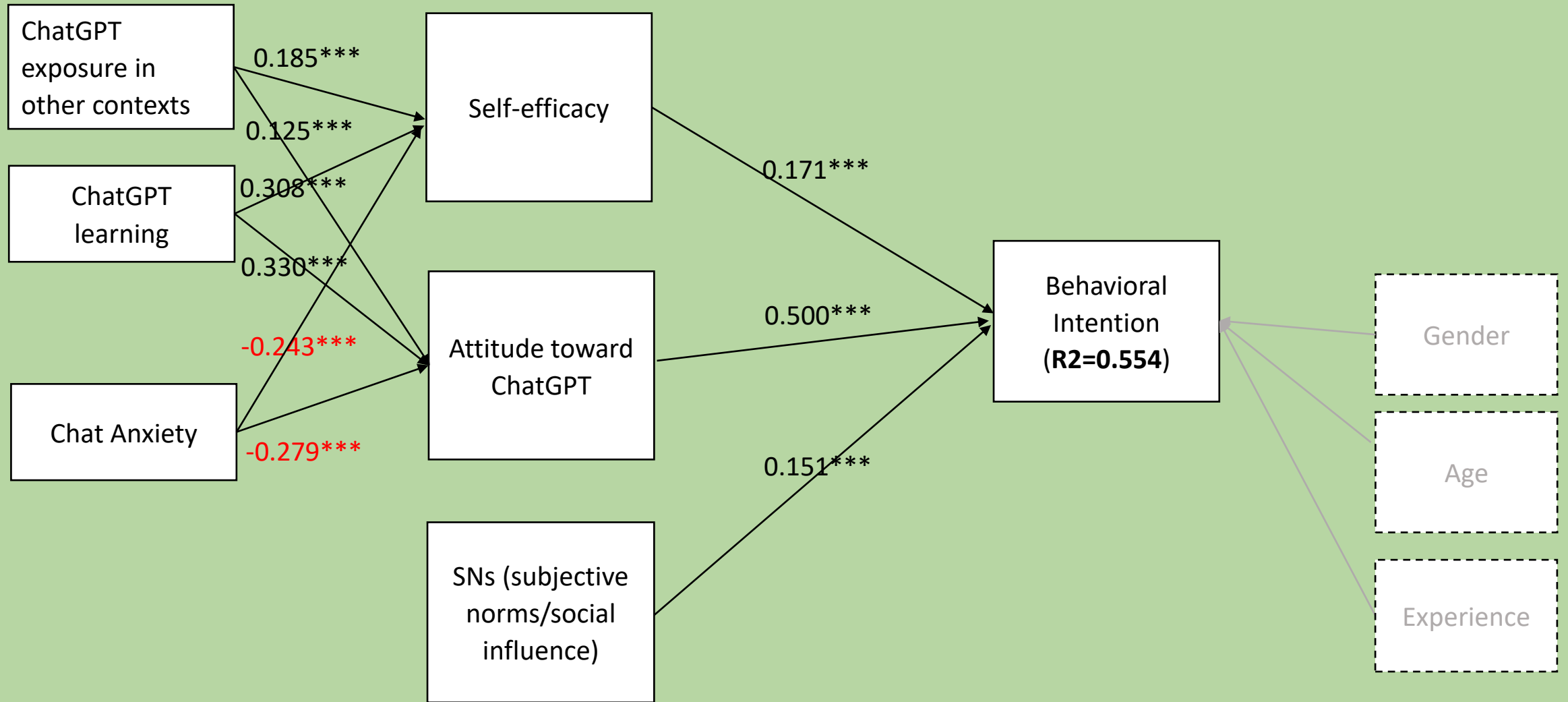
- No significant differences

# Intention to use Chat GPT: country comparison



- In Poland the intention is significantly lower than in UK, Czech Republic or Germany

# TPB results



# Are hallucinations part of the story?



- Single item: ChatGPT can generate false answers/solutions



# Conclusions

- TPB explains well intention to start using Chat GPT for teaching
- Learning about Chat and how to use it improves both attitude and SE; more than exposure to ChatGPT
- Fears about Chat (and its failures) matters
- Positive attitude is more important than SE or social influence (SNs)
  
- Limitations
  - Sample limitations
  - Cross-sectional characters (causality)

# Implications

- Not just for ChatGPT but AI in general – **learning and fears** will affect their **adoption in teaching**
- Hallucinations are not a deterrent to use Chat GPT - **Ethical considerations**
- LLMs applied in teaching – is it about **truth** and **probability** or not?