



Hanoi National University of Education

High School Teachers' Awareness and Practical Use of AI in Hanoi, Vietnam: Insights from Practice and Training

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Agenda

01

Overview of AI
in Education

02

Teachers' AI
Awareness and
Practical Use of
AI in Hanoi

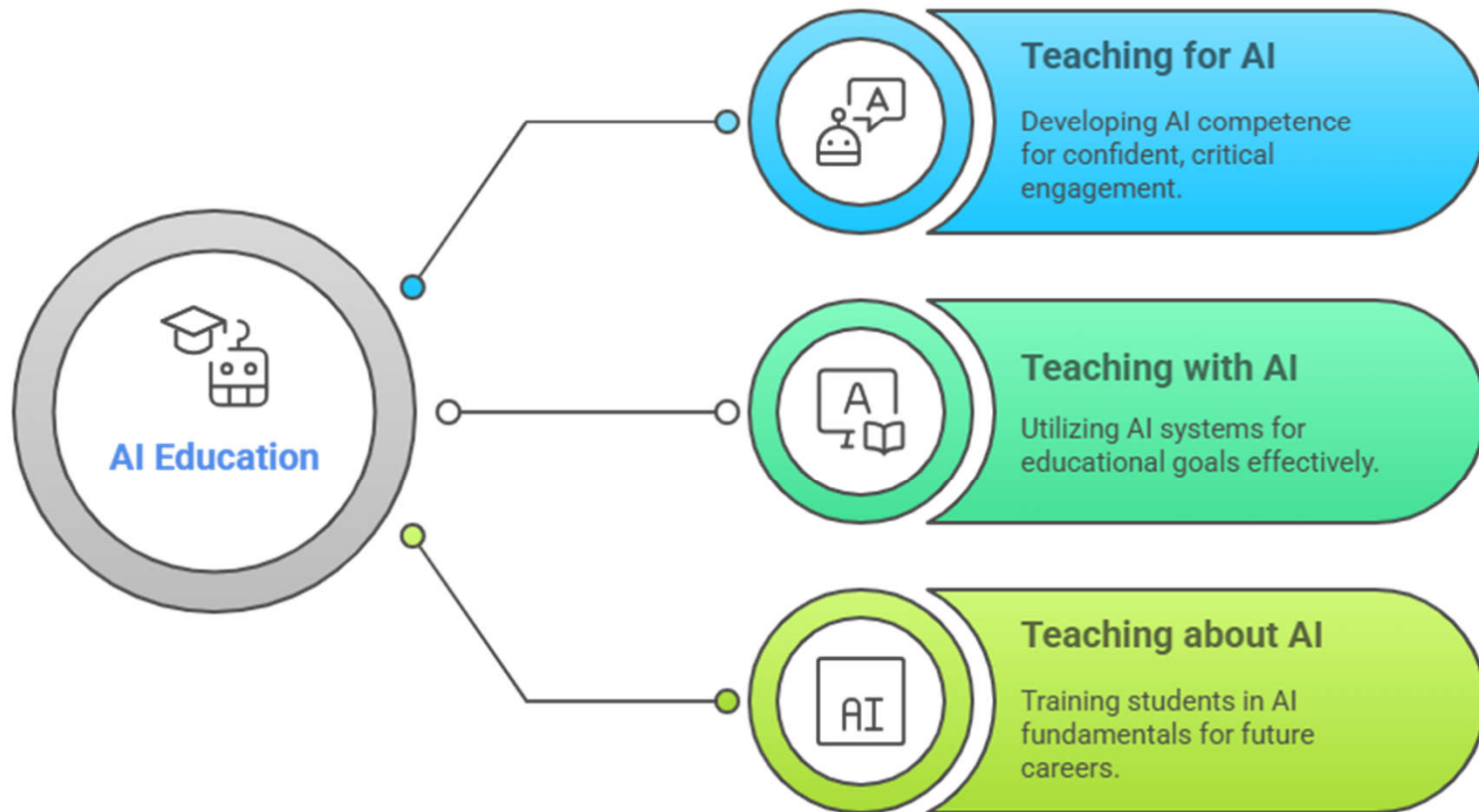
03

Experiences and
Solutions in AI
Teacher
Training

01 Overview of Ai in education



Exploring Dimensions of AI Education



Source: European Digital Education HUB

01

The current state of Teaching about AI



Introduction in Grade 12

AI concepts introduced in high school curriculum

AI and machine learning courses offered in IT programs

AI Courses at University



Pilot Programs in Schools

AI education pilot programs initiated in selected schools

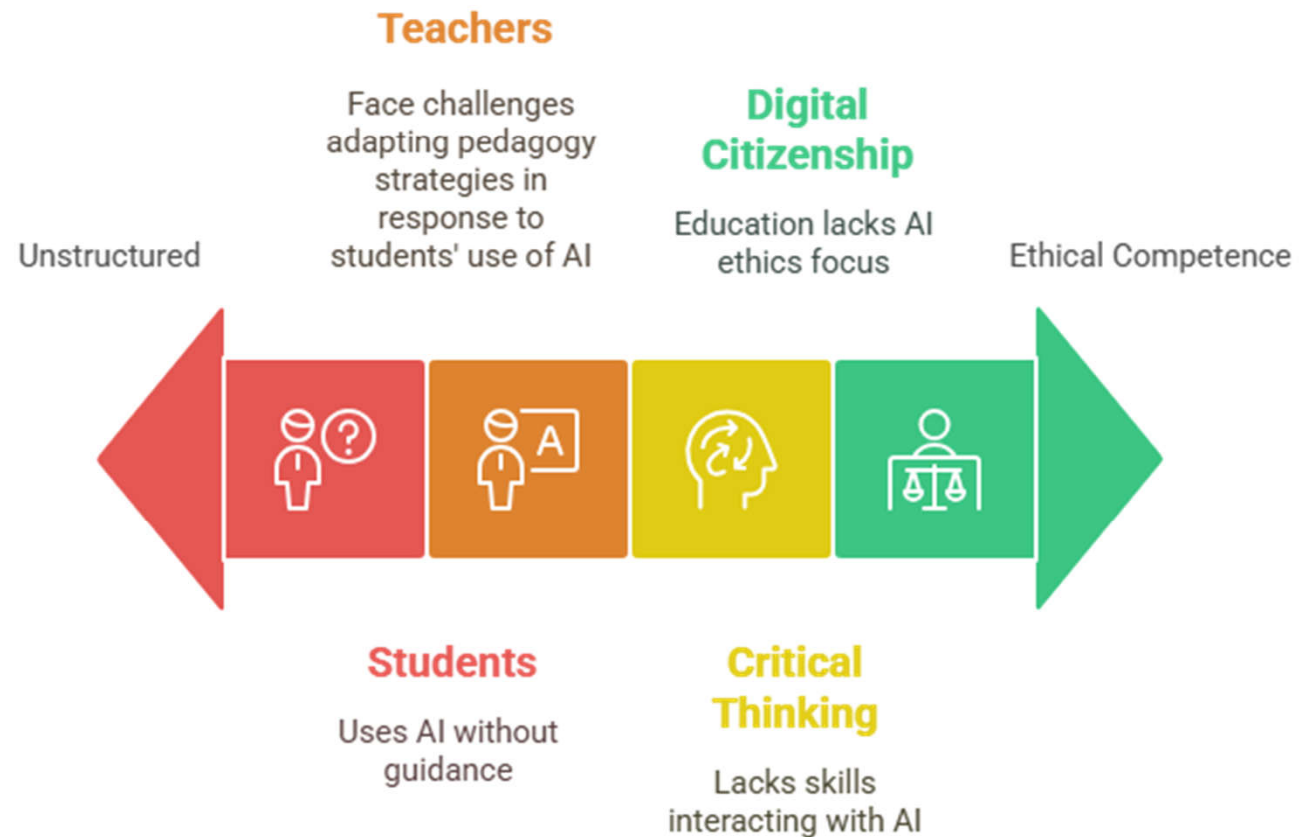
Development of a framework including AI usage competencies

National Digital Competency Framework



01

The current state of Teaching for AI



01

The current state of Teaching of AI

- Currently the most emphasized area in AI education
- Actively addressed through research studies and practical initiatives

Teachers' AI Awareness and 02 Practical Use of AI in Hanoi



02

Research context and methodology



Objective

Develop and validate a scale measuring teachers' readiness to apply AI in teaching



3-Step process

- Step 1: Expert-informed interviews to construct initial scale
- Step 2: Pilot test with 195 teachers to assess reliability and validity
- Step 3: Large-scale survey with 897 teachers in Hanoi

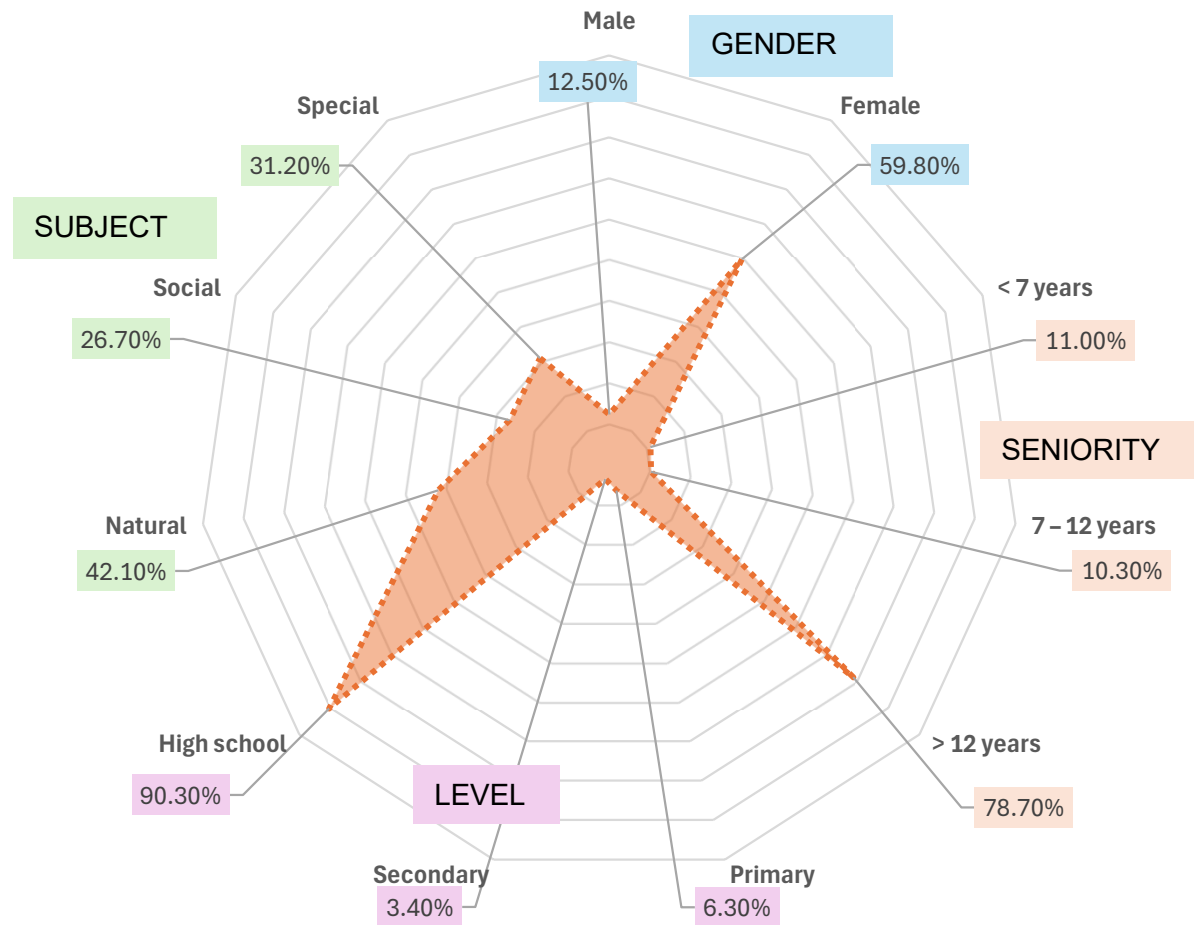


Instruments

- Likert scale (1–5) with reverse-coded control items
- Questions aligned with TAM model + emergent factors
- Manual data cleaning & reliability filtering

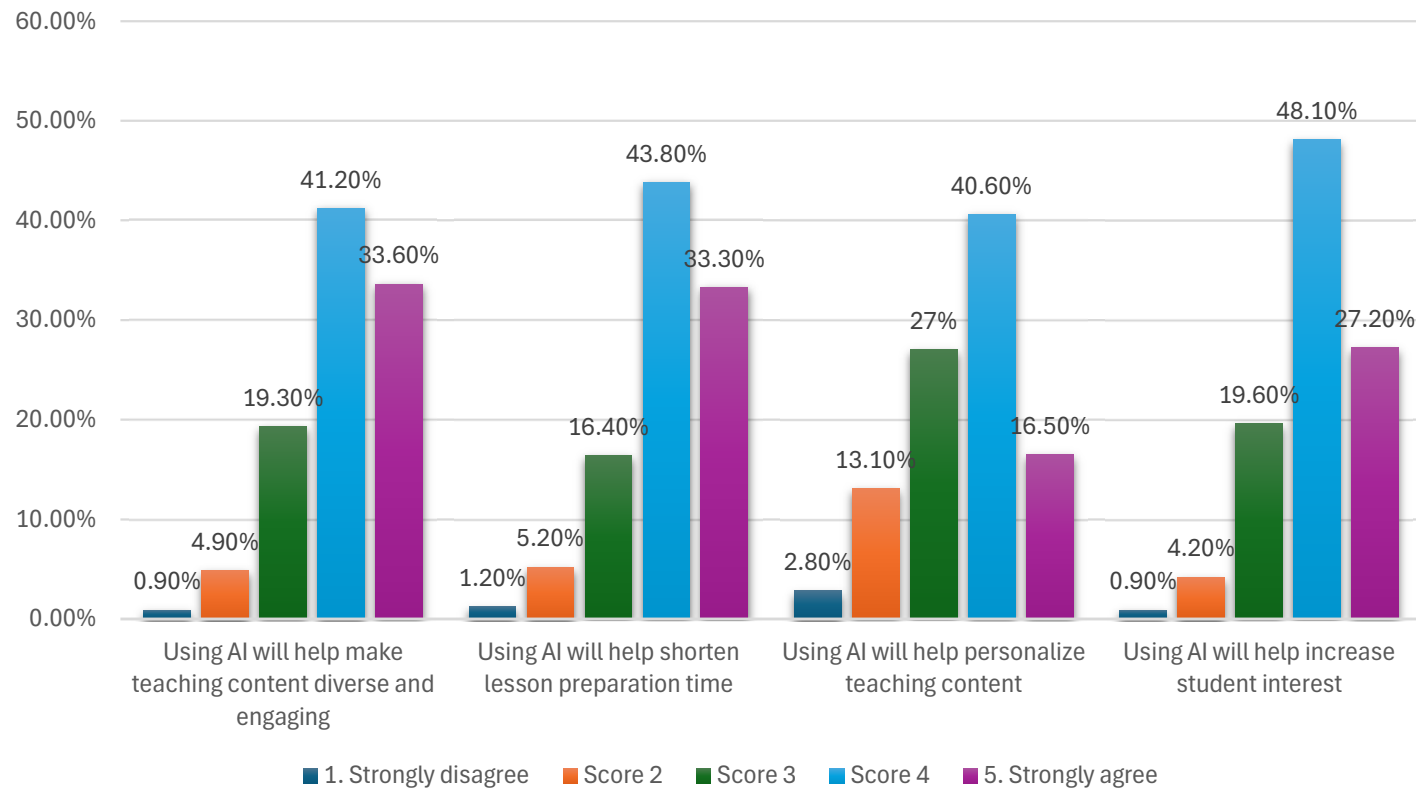
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Statistical chart of survey subjects according to classification characteristics



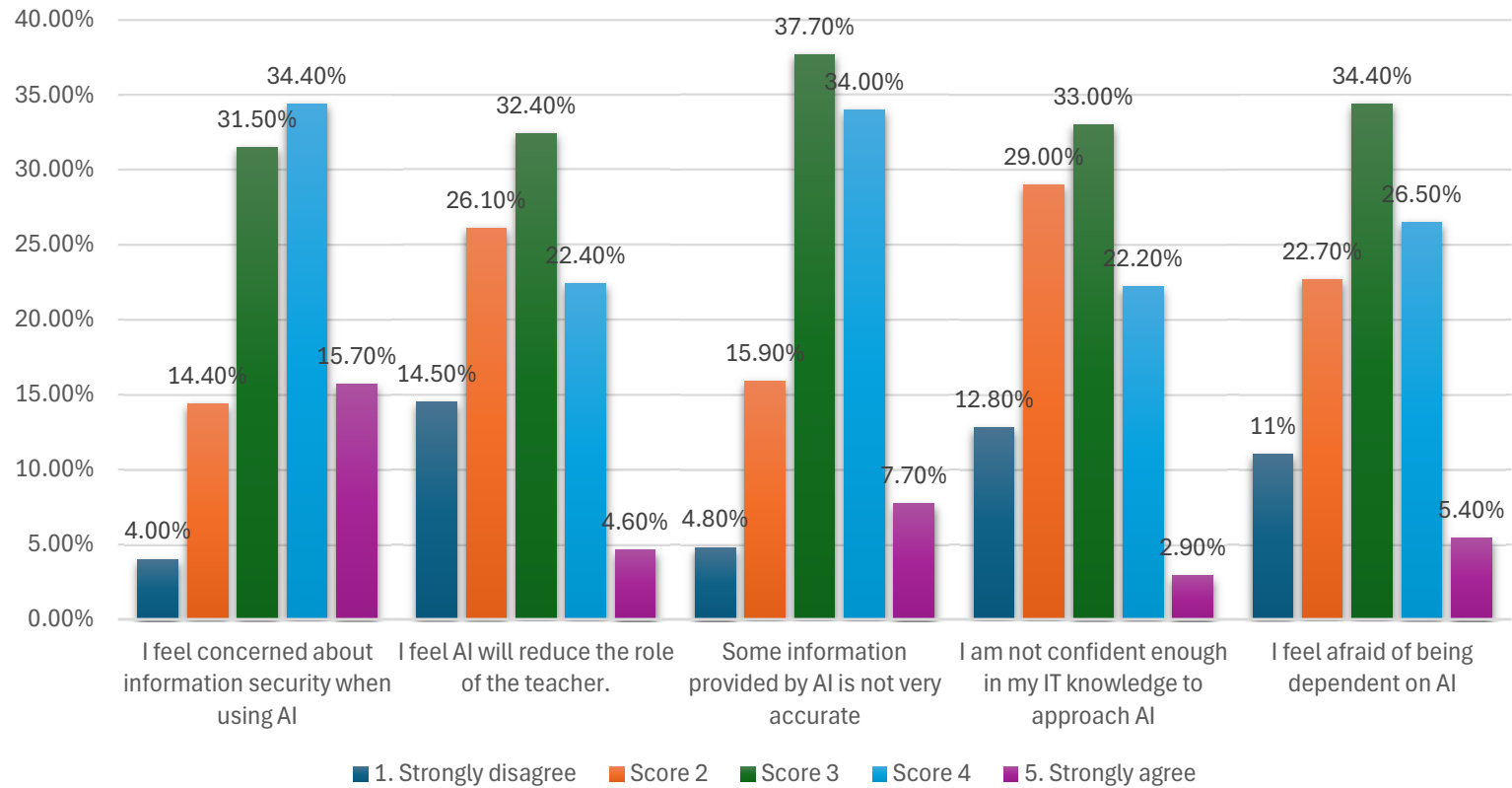
Results

Perceptions of the usefulness of AI



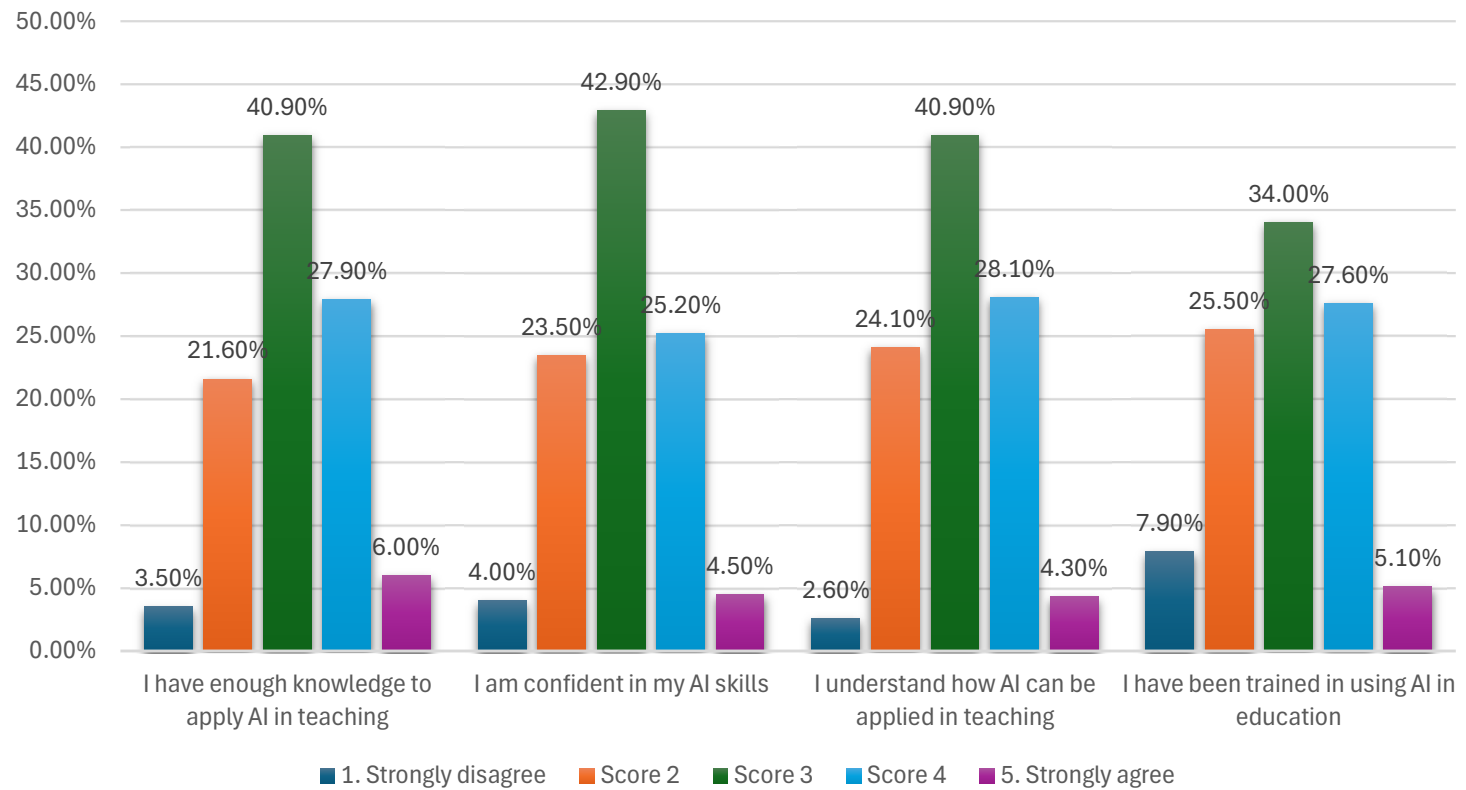
Results

Concerns about AI



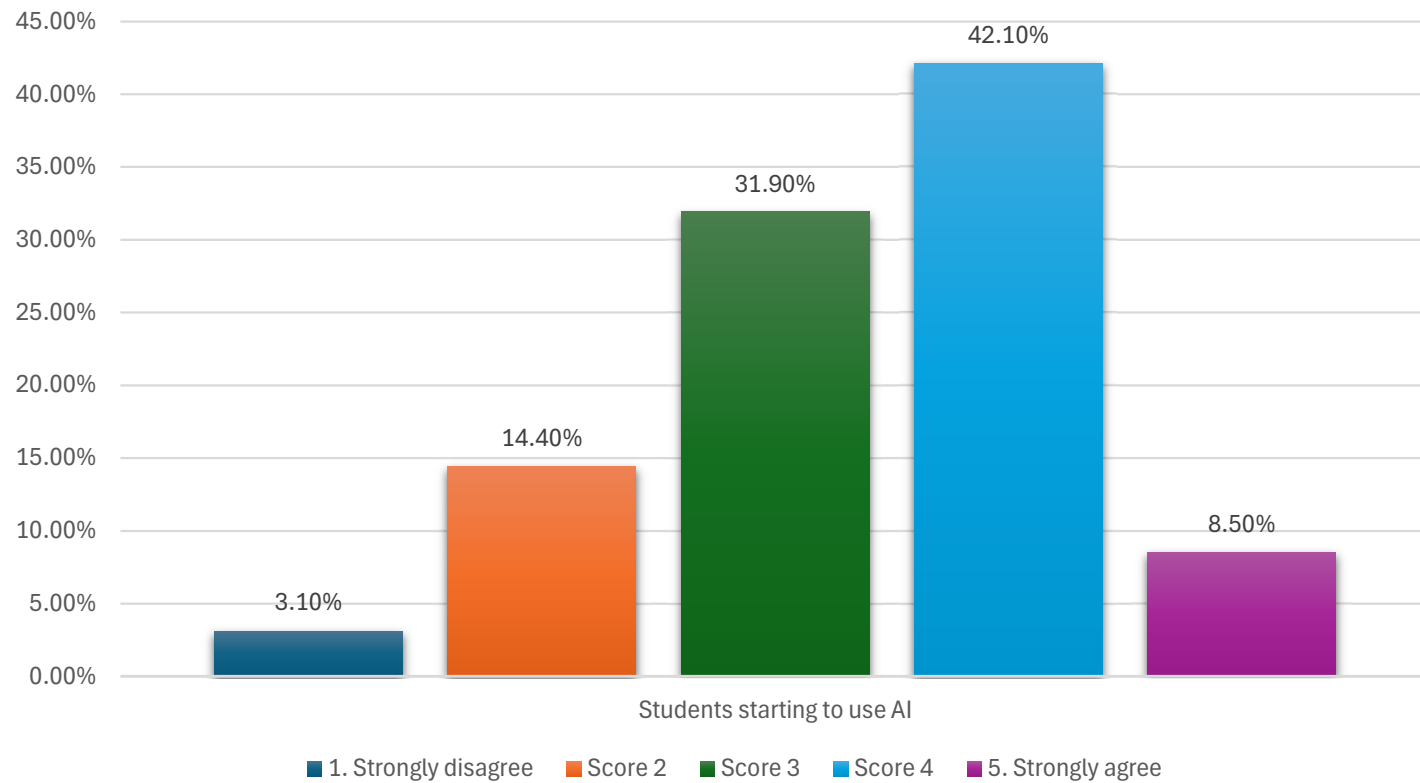
Results

Knowledge and skills about AI



Results

Motivated to apply AI in teaching



01

Sample of using ChatGPT

Given 1 exercise and 4 different small questions, requiring students to answer true or false covering knowledge and skills about "artificial intelligence".

Question 1:

Artificial Intelligence is a technology that allows computers and machines to perform tasks that typically require human intelligence, such as recognizing images, understanding language, and making decisions.

👉 Answer: ____

Question 2:

A self-driving car that uses sensors and decision-making software to avoid obstacles and follow traffic rules is **not** considered an example of Artificial Intelligence.

👉 Answer: ____

Đặc điểm của cuộc khởi nghĩa Lam Sơn:



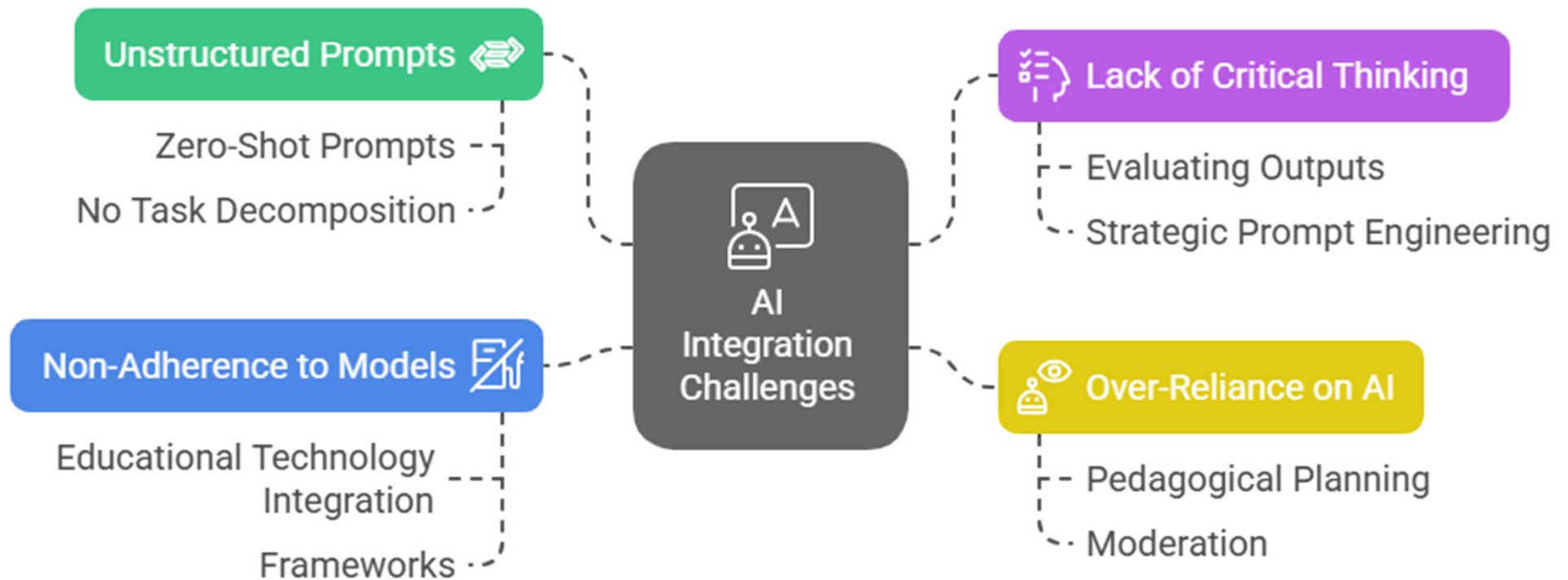
- Phát triển từ cuộc khởi nghĩa nông dân ở địa phương thành cuộc khởi nghĩa dân tộc kết hợp với kháng chiến chống xâm lược (Xiêm, Thanh) bảo vệ vững chắc độc lập tự chủ của dân tộc.
- Địa bàn lúc đầu chủ yếu ở vùng núi sau đó phát triển và ngày càng được mở rộng.
- Lực lượng: thu hút được đông đảo nhân dân tham gia đặc biệt là nông dân.





02

Teaching with AI – Observed Classroom Practices



03

Experience & Solutions for Teacher Training on AI



Experience and Solutions

Design Targeted Training Programs

Develop programs focusing on AI integration

Focus on Prompt Engineering

Emphasize prompt engineering and critical thinking

Leverage Free AI Tools

Utilize free AI tools for educational purposes

Strengthen AI Knowledge

Enhance AI literacy and application in curricula



Clarify Pedagogical Models

Define models and principles for AI in education

Promote Hands-on AI Application

Encourage practical use of AI tools in education

Emphasize Quality over Quantity

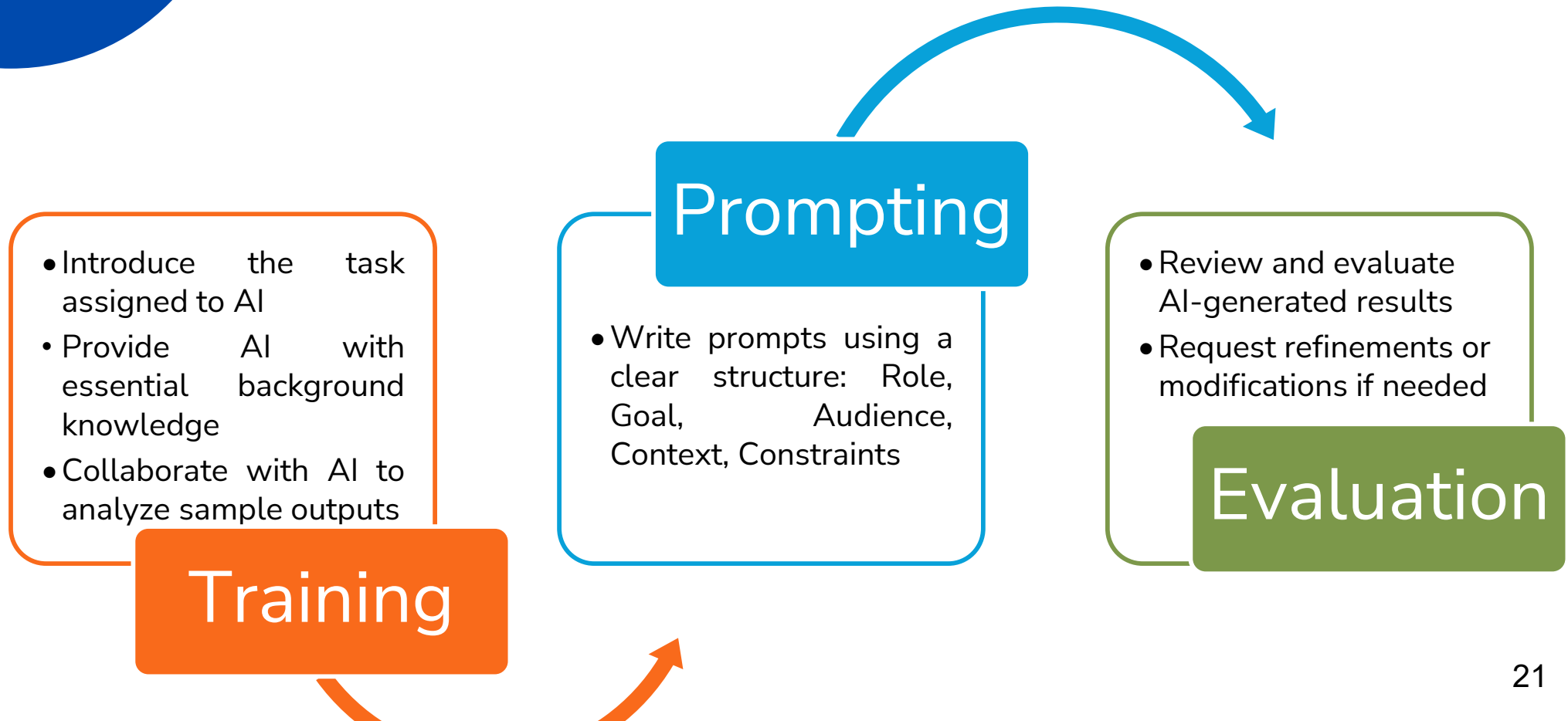
Prioritize quality over quantity in tool adoption

Support Deeper Understanding

Encourage understanding beyond tool usage

02

Steps to Work Effectively with AI



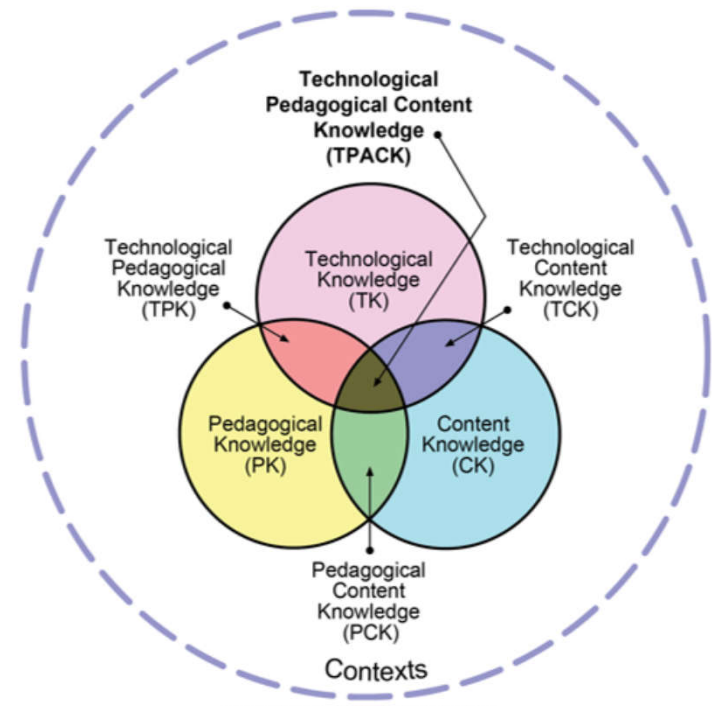
03

Technological Pedagogical Content Knowledge - TPACK

Pedagogical Knowledge

Content Knowledge

Technological Knowledge



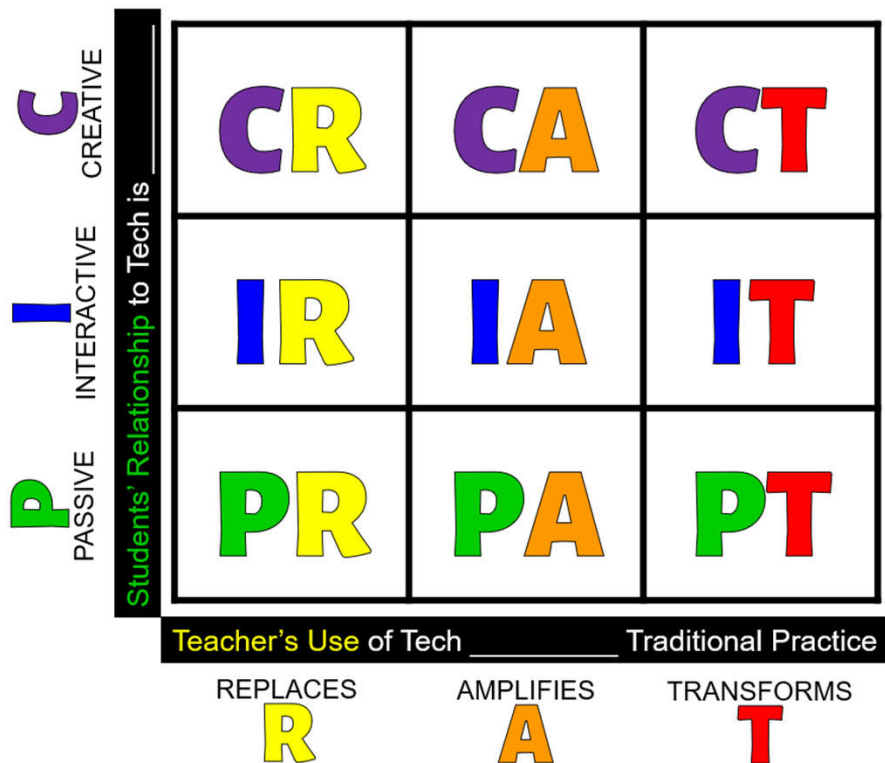
(Koehler & Mishra, 2009)

TPACK model

I want...., I use.....

1. I want to DEVELOP A LESSON PLAN, I use **ChatGPT**
2. I want to CREATE A LECTURE SLIDE, I use....
3. I want to GENERATE ILLUSTRATIVE IMAGES, I use....

PICRAT



- Horizontal axis: 3 levels of technology use by **teachers**
- Vertical axis: 3 levels of technology engagement by **students**

03

Ethical and Responsibility Issues



Inaccurate Responses

Generative AI may produce biased, incomplete, or inaccurate information.



Bias and Hallucination

AI may reflect data bias or generate fabricated content..



Personal Data Risks

AI may use user data to improve models, so it's essential to handle personal and sensitive information with care.



High Usage Costs

AI applications often require significant resources, leading to considerable usage costs.



Usage Rights and Policies

Check AI usage rights in schools, research, or academic publishing contexts.

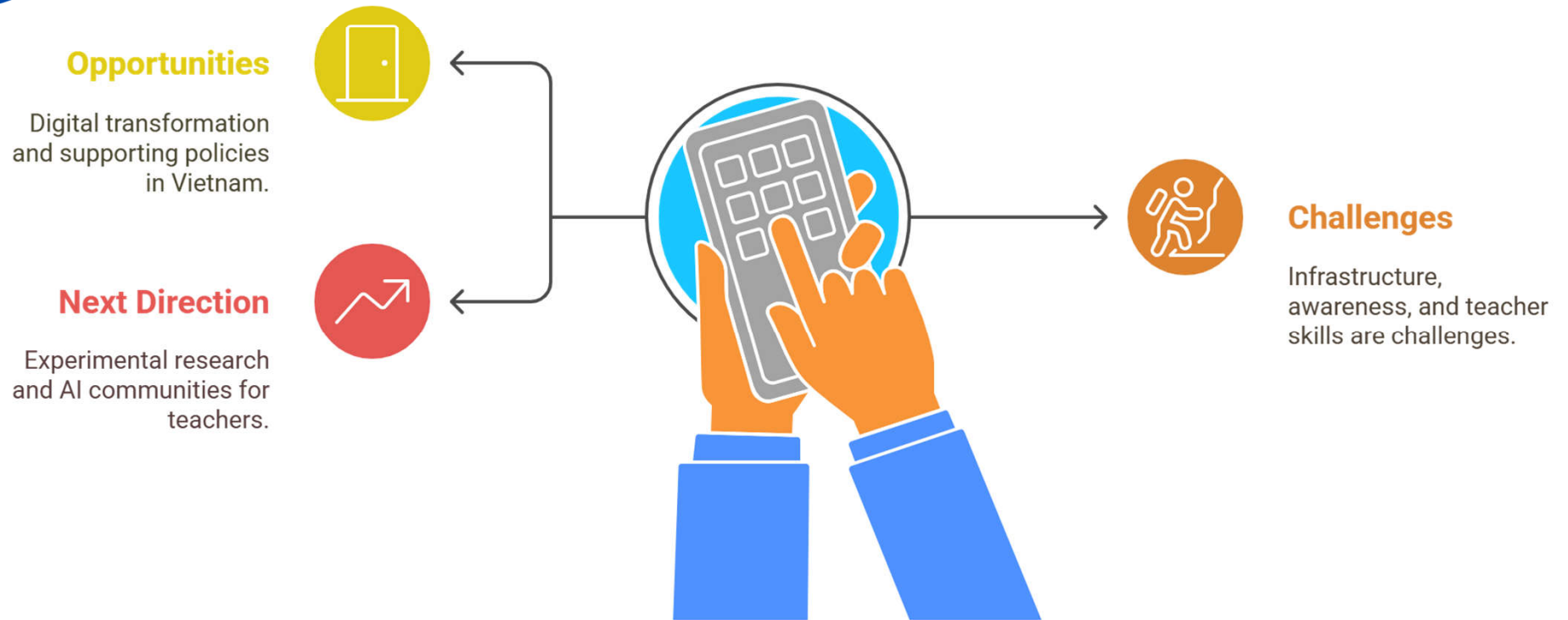


User Ethics

Avoid using AI for harmful purposes such as misinformation, cheating, or violating others' privacy.

03


Prospects and challenges



Conclusion

Teachers in Hanoi are increasingly aware of AI's importance, but they need structured support to move from awareness to effective pedagogical use.

AI training must combine technical fluency, pedagogical insight, and ethical reflection.



**“AI will not replace
teachers — It will
empower them to teach
better”**



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Thank you for your attention!