



# Artificial Intelligence Enabled in Teacher Leadership: Perspectives of EDUHK Pre-Service Teachers

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## Abstract

This study investigates the impact of artificial intelligence (AI) on teacher leadership from the perspectives of pre-service teachers at the Education University of Hong Kong (EDUHK). With the rapid advancement of technology, AI is transforming educational practices, enhancing teaching efficiency, and personalizing learning experiences. The research employs a qualitative phenomenological approach, utilizing semi-structured interviews with five pre-service teachers who have experience with AI in educational settings. Findings reveal that AI facilitates innovative teaching methods, improves resource allocation, and supports data-driven decision-making, thereby fostering leadership capabilities among prospective educators. However, challenges such as the need for AI literacy, ethical considerations, and the importance of face-to-face interactions with students were also identified. The study concludes that while AI offers significant opportunities for enhancing teacher leadership, it necessitates critical engagement and ongoing professional development to navigate its complexities effectively.

## Subject Areas

Artificial Intelligence

## Keywords

Artificial Intelligence, Teacher Leadership, Pre-Service Teachers, Educational Technology

## 1. Introduction

### 1.1. AI in Education

With the continuous upgrading of computer hardware, the popularity of the In-

ternet, and the rise of big data facilitated by the development of information technology, AI has given direction to the intelligent transformation of education, which has had an impact not only in teaching curriculum design, peer mentoring, and education [1].

### **1.2. The Potential of AI for Teacher Leadership**

Teacher leadership refers to the leading role of teachers in schools and education systems, which is integral in improving the quality of teaching and learning, driving school change, enhancing teacher professional satisfaction, and promoting student achievement [2]. The power of AI for teacher leadership is evident in the fact that AI is good at analyzing the attributes of data to give teachers advice based on real-time evidence, which enhances the foresight and scientific nature of their decisions [3]. Furthermore, with the support of AI learning systems, teachers can explore and innovate to personalize the learning experience for their students, and such personalized resources and feedback can help alleviate the cumbersome step-by-step process of analysis and real-time adjustments [4]. In the ever-changing educational landscape, AI can help teacher leaders better face complex educational challenges such as student diversity and curricular reform [5].

### **1.3. Research Gaps and Objectives**

However, as of now, there is still a lack of further inquiry into the specific areas in which AI affects teacher leadership for the better and how prospective teachers or potential leaders of the future will cope with the changes brought about by AI. In this paper, semi-structured group interviews with EDUHK pre-service teachers will be conducted to explore from their perspectives how AI has an impact on prospective teachers' leadership and how AI affects their preparation for future work.

## **2. Literature Review**

### **2.1. AI in Educational Practice**

Artificial intelligence has driven the development of innovative learning management systems in schools. Many schools are using AI to assist in completing their teaching and learning by intelligently analyzing and predicting students' learning data and performance, thus promoting the efficiency of teaching and meeting the need for personalized learning [4]. In the classroom, techniques like gamification and interaction with chatbots are being used to enhance the fun and engagement of lessons [6]. AI provides self-learning and self-correction chat tools and systems in the field of English teaching, listening, reading, and writing [7].

### **2.2. The TPACK Framework and AI**

TPACK (Technology, Pedagogy, and Curriculum Knowledge) is an important framework for teachers to effectively integrate technology, pedagogy, and content

knowledge in their educational practices [8]. TPACK emphasizes that enhancing student learning requires a combination of all three and that teachers not only need to have an in-depth understanding of the subject matter they are teaching (Content Knowledge CK) but also need to be equipped with the appropriate pedagogical methodology (Pedagogical Knowledge PK), as well as modern technology tools (Technology Knowledge TK). The empowerment of AI in TK allows teachers to organically integrate and innovate content knowledge, pedagogical methods, and technological tools with a broader perspective, thus realizing tailor-made teaching [8].

### **2.3. AI and Teacher Leadership in Decision-Making**

In an ever-changing teaching and learning environment, teachers are on the front lines of school reformers, identifying change to respond to change and allowing school leaders to make appropriate plans and decisions to lead change. Leaders may have a wealth of experience, but they still have to figure out how to integrate change in the face of new things that come along [3]. Artificial intelligence has advantages in structured decision-making in education and can work with educational leaders in unstructured or semi-structured decision-making, which helps educational leaders integrate various perspectives to better achieve human-centered and optimized decision-making and play the role of mutual supervision [3]. Although AI can serve as a potent mediator in personalized learning, teaching, and educational management, generative AI is still relatively new to some educators and involves the transformation of not only educational programs but also educational technologies, tools, and teaching strategies [9]. How to adapt to the innovative approaches to curriculum design brought about by AI, create engaging activities that enhance students' critical thinking skills, and lead to changes in teaching and learning is not only something that leaders should think about as pioneers, but it is also a powerful way for teachers and prospective teachers to train themselves to be more competitive.

## **3. Research Methodology**

### **3.1. Research Purpose**

The purpose of this study was to explore and understand the impact of artificial intelligence on pre-service teacher leadership in EDUHK. It specifically examined how AI has impacted teacher leadership. In order to gain insight into the experiences of pre-service teachers who use AI, the study utilized a qualitative phenomenological approach. By employing a qualitative approach, pre-service teachers' experiences and perceptual details related to the concepts explored are examined in depth [10]. Through this approach, the study aimed to reveal the subjective perspectives and insights of teachers who had direct exposure to AI either pre-service or during their careers.

### **3.2. Research Approach**

It is a purposive sampling method used to recruit participants (Appendix II) from

the Hong Kong University of Education, which advocates the scientific use of AI. They shared the common characteristics: 1) their schools were using AI in learning and teaching; 2) they had at least one year's experience of using AI in learning and teaching; 3) they self-identified as teacher-leaders or would have the opportunity to become teacher-leaders in the future; 4) all of them had some previous teaching experience. The researcher recruited five pre-service teachers who met the requirements. Therefore, the research sample consisted of five students from the Hong Kong University of Education.

### 3.3. Data Collection and Analysis

The study developed an interview outline (Appendix I) and conducted semi-structured interviews to enable data collection to be targeted to the interviewees, to identify possible surprises or important areas, and to avoid deviating from the key themes. The semi-structured format also facilitated comparability across interviews by ensuring consistency in the questions asked. It was pilot-tested to improve its validity and relevance to the study. A pilot study was first conducted with a pre-service teacher with a profile consistent with the study sample. The pilot study supported the interviewer in estimating the time needed to conduct the interview. In addition, some rewrites were made, which improved the clarity of the interview items.

Data analysis is inclined to use open coding, axial coding, and selective coding, as recommended by [11]. During analysis, interview transcripts were singled out for meaningful content and labeled differently based on similar or dissimilar characteristics. Then, it shifted to axial coding, which involves looking for relationships between codes based on open coding and placing related codes under themes. The final stage shifts to selective coding, picking out core themes and focusing on how other subjects function around the core themes. The combination of coding styles can help the researcher to fully mine the information to establish logical relationships and focus on the core issues [12].

### 3.4. Ethical Considerations

For ethical reasons, participants were identified using the formula T y, where "T" represents the pre-service teacher and "y" represents the number assigned. For example, T 2 represents the pre-service teacher with the number "2".

## 4. Research Findings

### 4.1. Positive Impacts of AI on Teacher Leadership

#### 4.1.1. Access to Resourceful Teaching Materials and Optimized Design

AI helps teachers access rich teaching materials, optimize teaching design, improve teaching efficiency and quality, and lay a pedagogical foundation for their leadership. Participants generally mentioned that AI could integrate massive teaching resources, help prospective teachers develop personalized teaching plans based on students' characteristics, improve teaching effectiveness, and enhance

their leadership in the deployment of teaching resources and personalized instruction for students.

*T5: Use AI to collect lesson-preparation information and design teaching activities and questions.*

#### **4.1.2. Promotion of Innovative Teaching Methods**

AI prompts pre-service teachers to be exposed to new teaching methods and encourages them to think out of the box, incorporate AI technology into their teaching, foster innovative thinking, and promote the formation of innovative teaching concepts. Participants emphasized that AI provides innovative teaching tools, such as intelligent tutoring systems and interactive software, through which prospective teachers can design novel teaching activities to stimulate student learning, enhance classroom attractiveness, and strengthen leadership in teaching innovation.

*T2: Teachers can teach in innovative ways.*

*T4: AI can increase the fun and interactivity of teaching.*

#### **4.1.3. Promotion of Innovative Teaching Methods**

Participants mentioned that AI can assist teachers in understanding students' needs and their strengths and weaknesses, develop personalized teaching plans, better guide students, and play a leading role in students' development. That is, AI can collect and analyze students' learning data, help prospective teachers accurately assess students' learning, make scientific teaching decisions based on data, and improve the accuracy and leadership of teaching decisions.

*T3: Intelligent education software can assist students' learning and meet personalized needs.*

#### **4.1.4. Facilitation of Educational Research**

AI helps pre-service teachers participate in educational research: AI provides pre-service teachers with research tools to help them identify problems and summarize patterns in data, improve their educational research ability, provide a basis for educational decision-making, and enhance their leadership in educational research.

*T4: Teachers can use AI technology to conduct educational data mining and analysis.*

In the process of AI empowerment, pre-service teachers face challenges such as insufficient technical application skills and data security concerns. How to improve AI literacy and cope with ethical issues are important topics they need to address in the process of developing leadership.

*T1: The main challenges are the popularization of AI literacy and ethical and security issues.*

Participants emphasized the importance of popularizing AI literacy. Prospective teachers should take the initiative to learn about AI, master the use of commonly used educational AI tools, and improve their technology application skills to better integrate AI into teaching and to utilize its advantages.

T1: *The popularization of AI literacy is imperative.*

## 4.2. Challenges Faced by Pre-Service Teachers

Participants noted the need for teachers to have critical thinking. In the face of the large amount of information provided by AI, prospective teachers need to develop critical thinking to recognize the accuracy and applicability of the information, avoid blind reliance, and ensure the quality of the content.

T2: *The main challenge may be that teachers must have very clear critical thinking and the ability to distinguish the quality of these questions.*

Participants emphasized that although AI can assist teaching, emotional communication between teachers and students is indispensable. Prospective teachers need to learn to work with AI and, at the same time, focus on face-to-face interactions with students to build good teacher-student relationships and improve their overall communication and coordination skills.

T1: *I think face-to-face communication is still necessary, and AI can only play a secondary supporting role.*

## 5. Discussion and Conclusion

### 5.1. Teacher Leadership Development Catering to Changes

In order to explore teacher leadership in the context of AI, this study addressed two research questions: How will AI impact the development of pre-service teacher leadership and the new competencies and strategies that teacher leaders will need to sustain their roles in the age of AI?

Firstly, participants viewed AI as a tool that can enhance teacher leadership. They believed that through exposure to and use of AI tools, prospective teachers could acquire new skills such as intelligent lesson planning and learning data analysis to enrich their teaching skill base, provide more ways and means for future teaching, and lay the foundation for pedagogical leadership. This is similar to study on the contribution of generative AI tools in lesson planning and critical thinking [9]. In addition, there are also participants who believe that AI brings global educational resources and cutting-edge educational concepts, which prospective teachers use to broaden their horizons, update their concepts of education, better adapt to future educational trends to make plans and decisions and improve their ability to lead in education. This is in line with the research that Ghamrawi [13] envisions future teachers being able to take on the role of resource providers, mentor their fellow educators, and become potential decision-makers. When talking about the challenges faced, participants maintained a positive attitude, with participants believing that it is important to understand the issues in the application of AI in education, such as privacy and security, and that prospective teachers should think about coping strategies in advance to enhance their ability to solve complex problems and be prepared to deal with various challenges in their future work. Keeping abreast of changes in the social environment and advances in technology, learning new skills and strategies, and adapting teaching

practices to achieve effective integration of challenges and opportunities. This is in line with researchers' expectations that the emergence of AI systems also brings new leadership roles, including motivators and monitors [14].

Artificial intelligence is not only involved in lesson preparation and data analysis, but also reshapes the mode of teaching interaction [15]. Taking the intelligent tutoring system as an example, it can analyze students' learning behaviors and problems in real-time and provide teachers with a detailed report on students' learning status, according to which teachers can adjust their teaching rhythm and methods to achieve accurate teaching. This kind of data-based teaching adjustment is difficult to realize in traditional teaching, reflecting the deep involvement of artificial intelligence in the teaching process. At the same time, AI also promotes the transformation of teachers from traditional knowledge transmitters to learning guides. When using AI tools to assist teaching, teachers need to guide students to use these tools correctly and cultivate their ability to filter and evaluate information, which requires teachers to have a higher level of educational guidance ability.

Finally, the concerns raised by the participants coincide with [16]. Some teachers are not receptive to new things; schools do not have the conditions, facilities, and environments to do so, the use of AI without boundaries or training, and teachers who do not think critically enough can regress in their decision-making skills. Students who have not yet developed a three-dimensional perspective may also become overly reliant on AI, negatively impacting learning outcomes [17].

The study found that the participants generally recognized that AI has a multi-faceted impact on their own teacher leadership and plays a driving role in educational reform and innovation, such as receiving literacy training with the help of AI, updating teaching concepts, optimizing curriculum design, and integrating teaching resources for personalized teaching, which will lay down the competencies and strategies for becoming a member of educational reform. The study gives added theoretical support to how to utilize AI to develop leadership in pre-service teachers. On the other hand, from the study, it was observed that the use of AI requires teachers to think critically, consider ethical issues, conduct literacy training, and have a certain level of acceptance. However, if the teacher does not have these prerequisites, it may play a role in AI being counterproductive for the teachers or leaders. Therefore, how to develop AI literacy systematically and strategies for utilizing AI still need to be further explored.

## 5.2. Limitations and Future Research Directions

Limitations of this study also hindered a complete understanding of the findings and implications of this study. First, the sample size of five pre-service teachers from different undergraduate study backgrounds may be small and would limit the representativeness of the findings of this study. In addition, the qualitative nature of the study design relied on semi-structured interviews and thematic analyses derived primarily from participants' opinions and perspectives, which could

introduce subjectivity and potential bias in the interpretation of the data. Further, the five pre-service teachers did not have experience as former school leaders, were not based on empirical evidence, and had speculative views that may have deviated from the needs of the real world. Additionally, the study examined the impact of AI on pre-service teacher leadership but did not consider the perspectives of school administrators, students, parents, or policymakers. This omission limits the overall view of how various stakeholders perceive the impact of AI on teacher leadership and may limit the depth of research insights. It is recommended that future research focus on broader perspectives related to the research topic.

In conclusion, AI upholds the openness of education to pre-service teachers to develop their own leadership skills by providing resources, tools, ideas of direction, etc. Conversely, AI has not been fully integrated into school reforms and training for situational differences. How to utilize AI to help the synergistic development of teacher leadership still needs further depth.

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### Conflicts of Interest

The authors declare no conflicts of interest.

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## Appendix I

### I. Personal Background

Please briefly describe your educational background and current studies.

Have you been exposed to any AI-related courses or tools during your teacher training? If so, please share your experience.

### II. Understanding of Artificial Intelligence

What are your views on the use of AI in education? What potential impact do you see it having on the teaching and learning process?

Have you used any AI tools (e.g., smart tutoring systems, learning analytics tools, etc.)? If so, please describe your experience with them.

### III. Understanding of Teacher Leadership

In your opinion, what are the core elements of teacher leadership? What do you think are the leadership roles of teachers in schools?

How do you see the role of teachers in promoting educational reform and innovation?

### IV. Integration of Artificial Intelligence and Teacher Leadership

How do you think AI can support teachers in leadership? Please elaborate.

In your view, can AI tools help teachers interact and communicate with students more effectively? If so, please specify.

### V. Challenges and Opportunities

What do you see as the main challenges in putting AI teacher leadership into practice?

How do you see the role of AI in the future of education? What impact do you think this branch of teacher leadership will have?

### VI. Future Outlook

What would you like to see in future teacher training about AI and teacher leadership?

How competent and confident are you in your ability to use AI as a future teacher? What additional support do you think is needed?

## Appendix II

### Demographic Details of Research Participants

| Interviewee Identifier | Age | Gender | Position/Major  | Years of Experience |
|------------------------|-----|--------|-----------------|---------------------|
| T1                     | 36  | Female | English Teacher | 17                  |
| T2                     | 27  | Female | Education Major | Year 1              |
| T3                     | 24  | Female | Education Major | Year 1              |
| T4                     | 22  | Female | Education Major | Year 1              |
| T5                     | 23  | Female | English Teacher | 5                   |

## Appendix III: Interview Transcription

Q1: Please briefly describe your educational background and current studies.

Have you been exposed to any AI-related courses or tools during your teacher training? If so, please share your experience.

1) T1: My undergraduate major was translation, and I'm currently pursuing a master's degree in educational research. I have teaching experience ranging from kindergarten to junior high school. I started to truly access and use AI tools after enrolling in the Education University. Regarding teacher training, I'm still in the process of exploring the application of AI tools, so I haven't achieved a high level of proficiency in using them for teaching. But I once inputted words into an AI tool to create a cloze test for students. During this process, I found that it significantly saved teachers' energy, and the designed test was logical. I believe that in the future, I will further integrate AI skills into my lesson preparation.

2) T2: I have two majors, applied English and financial management. In my previous studies, I used a traditional learning method and had no exposure to any language-research-related AI courses or tools. During teacher training, there was also no involvement with AI-related content.

3) T3: I'm currently pursuing a master's degree at the Hong Kong Institute of Education. During my teacher training, I took an AI course. The course mainly introduced the basic concepts of artificial intelligence, but there wasn't much practical application.

4) T4: I majored in English as an undergraduate and am now studying for a master's degree in education. During my previous studies and teacher training, I used AI to assist in writing papers and completing assignments, and I've gained some experience in this regard.

5) T5: I majored in Business English as an undergraduate. I worked part-time as a teaching assistant and then entered the education industry, with 3 - 4 years of teaching experience. In the past, I had limited exposure to AI in mainland China. It was during my study at the Hong Kong Institute of Education that I had more opportunities to access AI and apply it to teaching and lesson preparation.

Q2: What are your views on the use of AI in education? What potential impact do you see it having on the teaching and learning process? Have you used any AI tools (e.g., smart tutoring systems, learning analytics tools, etc.)? If so, please describe your experience with them.

1) T1: I think the application of AI in education is of great value. For example, grading compositions can save teachers a lot of energy and provide specific suggestions. I also tried to use AI to generate cloze tests, and the results were satisfactory. I plan to use it more in lesson preparation in the future. I've used AI tools such as Kimi, Doubao, and Wenxin Yiyan.

2) T2: I believe that the application of AI in education has both advantages and disadvantages. The advantages are that it can stimulate thinking, provide inspiration, help students learn independently, and simplify teachers' lesson—preparation processes. However, the disadvantages are also obvious. Students may become overly dependent on it, resulting in a reduction in mental exercise. I use AI tools when I encounter problems in my studies. It can answer questions, and when the answers are inaccurate, I will train it.

3) T3: I think AI is very helpful for teaching. It can increase the fun and interactivity of teaching, analyze students' learning situations, and push learning materials. I designed software with my classmates that can identify students' inappropriate gestures, and it can also be used to monitor learning behaviors in the future. I used a gesture-recognition tool in the AI class, which left a deep impression on me.

4) T4: I have a positive attitude towards the application of AI in education. It can improve learning and teaching efficiency and meet the personalized learning needs of students. I used Doubao and ChatGPT for academic assignments and recommended learning software like Banma English and Banma Thinking to primary school students. The results were very good.

5) T5: I mainly use AI to assist in lesson preparation and collecting information for teaching activity design and problem design. For example, when teaching KET or PET courses, I use AI tools like Wenxin Yiyao and Deepseek. According to the students' English levels, these tools can help me plan the courses, which is of great help to teaching.

Q3: In your opinion, what are the core elements of teacher leadership? What do you think are the leadership roles of teachers in schools? How do you see the role of teachers in promoting educational reform and innovation?

The core of teacher leadership is the guiding and exemplary role. Teachers should lead students to explore the unknown, pay attention to students' psychological growth, stimulate their learning motivation, and set a good example in knowledge and concept transmission. In schools, teachers should promote educational reform, coordinate various relationships, and drive the development of the school.

2) T2: I think teacher leadership is reflected in the control of the classroom, students, and knowledge points. However, teachers should not be superior leaders but rather play a role in growing together with students. In promoting educational reform and innovation, enthusiastic teachers will take the initiative to try new methods and innovate teaching.

3) T3: The core elements of teacher leadership include encouraging teachers to use AI tools and understanding students' situations. Teachers can contribute to teaching and research activities in schools, organize AI-related scientific research projects, and analyze teaching data. In educational reform and innovation, teachers should update their concepts and optimize curriculum design.

4) T4: The key to teacher leadership lies in professional qualities and innovation capabilities. Teachers in schools are practitioners and reflectors of educational reform. They promote the development of reform through practice and feedback.

5) T5: Teacher leadership requires a clear direction and the trust of the team. Teachers in schools should play an exemplary role, plan courses, and guide other teachers. In educational reform, teachers should combine experience with new ideas to promote educational progress.

Q4: How do you think AI can support teachers in leadership? Please elaborate.

In your view, can AI tools help teachers interact and communicate with students more effectively? If so, please specify.

1) T1: AI can definitely support the development of teacher leadership. It can collect information and assist teachers in analysis and processing, providing help in teaching resource allocation and other aspects. However, in terms of communication with students, AI can only play an auxiliary role. Face-to-face communication is more important.

2) T2: AI can help teachers explain knowledge points better and guide students to think. But in terms of communication and interaction, AI can only provide suggestions and cannot completely replace the real communication between teachers and students.

3) T3: AI can integrate teaching data, provide support for teachers' decision-making, and predict teaching trends. In terms of interaction and communication, AI has increased the ways and diversity of interaction, facilitating teacher-student interaction both in and out of class.

4) T4: AI can quickly integrate students' information, helping teachers comprehensively understand students, assisting in teaching decision-making, and promoting teacher-student communication. However, in practical applications, attention should be paid to data security and teachers' acceptance of AI.

5) T5: AI can help teachers in information collection and curriculum planning, providing new ideas and a general framework. However, AI's suggestions cannot be completely adopted. They need to be adjusted according to the actual situation. In terms of teacher-student interaction, AI can provide reference opinions, which is helpful for teaching.

Q5: What do you see as the main challenges in putting AI teacher leadership into practice? How do you see the role of AI in the future of education? What impact do you think this branch of teacher leadership will have?

1) T1: Currently, the integration of AI and teaching leadership is in its initial stage. The main challenge is the popularization of AI literacy to make teachers accept AI and consider ethical and security issues. In the future of education, AI will definitely play an auxiliary role. The gap among teachers in the future will lie in their ability to use AI.

2) T2: The main challenge in integrating AI into teacher leadership is that teachers need to have critical thinking to distinguish the quality of information provided by AI. This is a basic ability that teachers must possess. In the future of education, AI may promote teachers' lesson preparation, improve their efficiency, and contribute to their personal growth. For students, it can cultivate their independent learning ability. However, there may also be problems, such as students' over-reliance.

3) T3: The main challenge is that some teachers are not proficient in using AI, especially older teachers. In addition, AI has privacy issues, and data collection may violate privacy. In the future of education, AI has both positive and negative effects. The positive aspect is that it can integrate resources and conduct dynamic

supervision, while the negative aspect is the potential privacy violation.

4) T4: The challenges lie in teachers' acceptance of AI and privacy-security issues. Some teachers with long teaching experience are less likely to accept new technologies, and the AI algorithms are not transparent, posing a risk of privacy leakage. AI's entry into the education field is an irreversible trend. It has a dual-edged-sword effect on teacher leadership, improving efficiency but with difficult-to-balance data—security problems.

5) T5: The framework provided by AI lacks pertinence and may not meet the actual situation of different regions and schools, affecting teachers' decision-making. However, AI can also improve efficiency and provide new ideas, promoting the development of teacher leadership. In the future of education, AI may have a guiding influence on leadership decision-making.

Q6: What would you like to see in future teacher training about AI and teacher leadership? How competent and confident are you in your ability to use AI as a future teacher? What additional support do you think is needed?

1) T1: In future teacher training, I hope to focus on the popularization of AI literacy, enabling teachers to master the operation methods. I'm confident in my ability to use AI and hope that teachers in different regions can have the opportunity to learn and use AI.

2) T2: I hope that future teacher training will cover how to better apply AI to teaching to improve teaching effectiveness. As a future teacher, I'm confident in using AI and believe it can enhance teaching quality.

3) T3: I look forward to future teacher training on how to better use AI tools for teaching and achieving personalized teaching. I have some confidence in using AI but still need more training and practice.

4) T4: I hope the training content includes how to better combine AI with traditional teaching and solve privacy-security problems. I'm confident in using AI, but currently, the application of AI in the classroom needs further exploration, and teachers need more training.

5) T5: Future teacher training could explore the application of AI in teacher screening and matching. I'm confident in using AI, but currently, the popularity of AI in mainland schools needs to be improved, and teachers need more training.