



AI Readiness and Digital Teaching Competency among Pre-Service Teachers: A Correlational Study

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ABSTRACT

Today's Artificial Intelligence and digital technologies have changed how we teach and learn. In this changing world future teachers must know about AI and must also be able to use digital tools in ways that are clear, fair and fit for teaching. Because of this the present study looked at how ready pre-service teachers for AI and how capable they are of using digital teaching tools. The study also examined whether AI readiness and digital teaching competency are related, whether this relationship is different for female pre-service teachers and whether AI readiness can predict digital teaching competency. A quantitative research approach was used, with a design. Two hundred B.Ed. Pre-service teachers were chosen through sampling. Data were gathered with researcher-made scales for AI readiness and digital teaching competency each containing 25 items across five dimensions. The internal consistency of the scales was checked with Cronbach's Alpha giving values of 0.70 for AI readiness and 0.78 for teaching competency. Statistical tests included Mean, Standard Deviation, Pearson Product-Moment Correlation and Simple Linear Regression. The results showed an AI readiness score of 80.63 (SD = 8.51) and an average digital teaching competency score of

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83.96 (SD = 10.29) indicating good levels for both. A positive and statistically significant relationship was found between AI readiness and digital teaching competency ($r = 0.623$ $p < 0.001$). When the data were split by gender the correlation was $r = 0.626$ for males and $r = 0.600$ for females both significant, at $p < 0.001$. Regression analysis also showed that AI readiness predicts teaching competency ($R^2 = 0.388$, $F(1,198) = 125.69$, $p < 0.001$). Overall these findings show that AI readiness and digital teaching competency are two parts of how pre-service teachers prepare for their future careers.

Introduction

The world we live in now is full of changes in technology and the quick growth of artificial intelligence. This has not left the school system untouched. Things like online learning websites, smart teaching tools, learning programs that change to fit each student checking how students learn, automatic grading and AI that can create content have changed how teachers teach, how students learn, how they get tested and how school materials are made. These changes have made technology more than something extra in schools. It is now a part of how teachers work. The rise of AI that can create content in particular has given teachers and students ways to make information create lessons give feedback, plan classes and learn in a way that fits them personally. Just having the tools isn't enough. Teachers also need to know how to use them feel confident understand what they do think about the things to do and know how to teach well. According to UNESCO AI has changed the way teachers and students work together. Now teachers work with AI and students. This means we need to look at what teachers need to do and what skills they need in this new time (Miao & Cukurova 2024). Adding AI into teaching is not simple. It involves more than using technology. It also includes how people think, what they believe and how they make choices in teaching. Even though AI can help look at a lot of data make content and help make some choices it is still up to people to check if the results are right, fair and safe. It is also up to people to make sure that the information used is legal and that it is done in the way. So seeing AI in schools as using new tools is not enough. It needs to be thought of as something that focuses on people and is based on teaching. To match this need UNESCO made a plan that lists 15 skills teachers need. These skills are grouped into five parts: thinking about people first how to act with AI, the basics and uses of AI, how to use AI in teaching and how to keep learning with AI. The plan says that in the time of AI teachers need to know what AI can do and what it can't follow the rules and use AI in ways that help learning (Miao & Cukurova 2024). In this situation being ready for AI is very



important. Being ready for AI means being prepared to understand what AI is being ready to use it being able to think about what it can do and what it can't choosing the AI tools and making sure they are used in the right way. This idea includes not knowing about AI but also being aware having knowledge feeling able to use it wanting to use it being able to think about it and being ready to use it the right way. So being ready for AI is a mix of knowledge, skills and how someone feels and thinks about using AI. UNESCO's plan for teachers also says that being good with AI is not about knowing how to use it. It's, about having knowledge, skills and values (Miao & Cukurova 2024).

On the hand in todays education world just knowing about AI is not enough for a teacher. They also need to know how to use digital tools in teaching. They need to use these tools in lessons in learning materials in tests in talking with students in working and in helping students with their learning. This bigger skill is called "Digital Teaching Competency." The European Commission has a plan called the Digital Competence Framework for Educators (DigCompEdu). This plan gives a way to understand this idea. According to DigCompEdu a teachers digital skills are not just about knowing how to use computers or programs. It is about using tools to make learning better to support tests to give students more power and to help them become more skilled with technology. In this plan there are 22 skills divided into six areas: engagement, digital resources, teaching and learning assessment helping students and developing students digital skills (Redecker, 2017). Digital teaching competency is very important for teachers who're still in training. Teacher education programs help build the knowledge the teaching skills and the classroom habits that future teachers will need. If future teachers learn to use tools in real teaching situations while they are studying it might be easier for them to use technology in their own classrooms later. A study has found that the digital skills of teachers are an important part of modern teaching. It says that things like attitude feeling confident, knowledge, experience and having access to technology are important for skills (Shokeen & Kaur 2021). Also recent studies show that the digital skills of teachers keep changing. This is because of things like the situation they are in how they teach and what they personally think. The focus has moved from making teaching faster to making future teachers who understand AI, who can use AI and who can bring AI into their teaching. This area of study is still new and not fully explored. This situation leads to a question: Is the readiness of a future teacher to use AI connected to their digital teaching skills? There is some overlap between these two ideas. Using AI in teaching needs skills with tools, teaching knowledge, confidence and proper use of technology.. Just because they are similar does not mean they are connected in a real way. It is important to find out if being ready for AI really means having digital teaching skills. If there is a link it is important to know what that link is and how strong it is. The importance of this question is even higher because adding AI to teacher training should not just be about making future teachers know AI tools. The



goal should be to make them thoughtful, careful, ethical and good at teaching. These teachers should know when, why and how to use AI and other digital tools in their teaching. UNESCOs AI Competency Framework also says that training teachers should include ideas keeping people in control and teaching with AI along with knowing about AI. In this case the study looks at AI readiness and digital teaching skills as two connected ideas. AI readiness will be the thing that is looked at to predict what happens. Digital teaching skills will be what is being measured. The study wants to check how much both things are there. It also wants to find if there is a link, between them and how much AI readiness can predict digital teaching skills. So the study wants to go beyond just showing what is happening and start to look at how things are connected and what might happen next.

AI Readiness

AI readiness means how ready a person is to understand, learn, accept, use and responsibly bring intelligence into their work. Existing studies look at AI readiness as a mix of factors like knowledge, skills, confidence, attitudes plans to act and ethical awareness. Sadaf et al. (2025) Studied how AI skills, confidence, interest, attitudes plans to act and ethical knowledge relate to pre-service teachers' AI readiness showing that both skill and feelings are important for using AI. In this study AI readiness means the preparedness of pre-service teachers, measured across five areas: AI Awareness, AI Knowledge/Literacy, AI Self-Efficacy AI Attitude/Willingness and Ethical Readiness. We will measure it with a 25-item, five-point Likert scale created by the researcher. A higher score shows a level of AI readiness.

Digital Teaching Competency

In this study digital teaching competency means the ability of pre-service teachers to use tools in a way that fits teaching goals. It covers the knowledge, skills and teaching abilities that let a teacher use tools well and meaningfully in the learning process. According to a review, by Claro et al. (2024) Teacher digital competence includes lesson planning with tools using digital tools in teaching putting technology into classroom activities and helping students build digital skills.

Pre-Service Teachers

The term "pre-service teachers" means people who want to become teachers and are studying to get a teaching certificate through a proper teacher training program. They have not started teaching in schools. For this study pre-service teachers are described as student-teachers who're in a B.Ed. Program. These



student-teachers are part of the teacher training program, during the time this study is happening. This group of student-teachers will be the people taking part in the study.

Review of Related Literature

The fast growth of Artificial Intelligence and digital technologies has changed how we think about education and training teachers. Today teachers need more than just knowledge and old teaching skills. Teachers also must use tools and AI tools in ways that fit teaching, follow ethics and are well thought out. In this context AI readiness and digital teaching competency of pre-service teachers become very important. Teacher education programs build the knowledge, tech skills and teaching ways of future educators. UNESCO has created an AI Competency Framework for teachers with 15 skills split into five main areas: Human-Centred Mindset, Ethics of AI, AI Foundations and Applications AI Pedagogy and AI for Professional Learning. The framework says AI competence is not about tech knowledge. AI competence also needs awareness, human agency, teaching use and ongoing learning. This framework matters for this study because it gives a theory for understanding AI readiness using parts: awareness, knowledge, self-belief, attitude and ethical readiness (Miao & Cukurova, 2024). Studies show that AI readiness of pre-service teachers is tied to their knowledge, competence, attitudes, self-belief and ethical understanding. A recent study looked at 80 pre-service teachers. How their AI skills, feelings and readiness to use AI are linked. The study found that the teachers had low-to-moderate AI skills, self-belief and low desire to use AI. It also found a link between AI skills and positive feelings. Awareness and combined teaching-tech knowledge were key parts that explained teacher prep and AI readiness. In the way a study comparing pre-service teachers in Portugal and Spain looked at how ready they were to use AI. It showed that AI knowledge, digital skills, trust in AI and teacher training were important (Sara et al., 2025). The study found that teachers in both countries were not fully ready to use AI in their classes showing that teacher education needs more AI training. Digital teaching competence is also a part of modern teaching. (Shokeen & Kaur 2021) said that attitude, self-belief, tech skills, experience and access to tech all affect teaching competence of pre-service teachers. This shows that just having devices is not enough. Confidence, experience and right knowledge are also needed for teaching use. Recent studies also connect teaching competence of pre-service teachers to many parts. (Zeng et al., 2025) reviewed 28 studies. Found that training curriculum help, mental and environmental support, policy and resources legal-ethical issues, digital literacy and personal traits all affect digital competence. The review also showed that many pre-service teachers have digital skills but big gaps still exist in ethical awareness, teaching integration and critical thinking. (Zhang et al., 2026) reviewed 38 studies from 2014-2024. Found that digital competence is essential for modern teaching for pre-service teachers. The review said TPACK is often used, there are still weak spots in digital content making,

teaching integration and problem solving. In short, the literature shows that AI readiness and digital teaching competency are many-part concepts shaped by knowledge, skills, confidence, attitudes, teaching use and ethics. Most studies look at these concepts separately. Few studies look at how AI readiness, seen as a many-part predictor predicts overall digital teaching competency. Even though AI research is growing fast the field is still new, for pre-service teachers.

Need and Significance of the Study

The fast growth of Artificial Intelligence and tools is changing how we teach and learn today. AI tools like Generative AI, smart learning systems, online platforms and smart teaching assistants are being used more and more for teaching, learning, testing giving feedback and making content. Just having access, to these tools does not automatically mean they are used well. Teachers need the knowledge, skills, confidence, understanding of teaching methods and awareness of ethics to use these tools properly. That is why it is important to look at the AI Readiness and Digital Teaching Competency of Future Teachers who will be the teachers of tomorrow. AI Readiness is important because using AI well means understanding what it can do what it cannot do, the issues and how to use it in teaching. The UNESCO AI Competency Framework says that teachers need AI knowledge thinking that puts people first ethics, AI teaching methods and ways to keep learning (Miao & Cukurova 2024). Also Digital Teaching Competency helps future teachers use resources teach with technology make digital content use testing tools and communicate online. The Dig CompEdu framework talks about using resources, teaching and learning testing helping students learn on their own and being involved professionally as important parts of a teachers digital skills (Redecker, 2017). Even though AI Readiness and Digital Teaching Competency are connected we need studies to see how they relate among Future Teachers. Knowing more about this connection could help Teacher Training schools find where future teachers need help and training. The results could also help teacher trainers and those who make school programs improve AI understanding, teaching methods using technology, digital testing and using AI in an ethical way in B.Ed. Courses. So the current study, "*AI Readiness and Digital Teaching Competency among Pre-Service Teachers: A Correlational Study* " is important for creating a picture of how ready future teachers are, for teaching with AI and digital tools.

Objectives of the study

1. To find out the level of AI readiness among pre-service school teachers.
2. To find out the level of digital teaching competency among pre-service school teachers.
3. To study the relationship between AI readiness and digital teaching competency among pre-service teachers.



4. To study the relationship between the gender of AI readiness and digital teaching competency.
5. To determine the role of AI readiness in predicting the digital teaching competency of pre-service school teachers.

Hypotheses oh the study

H₀₁: There is no significant correlation between AI readiness and digital teaching competency among pre-service school teachers.

H₀₂: There is no significant correlation between the gender of AI readiness and digital teaching competency among pre-service school teachers.

H₀₃: AI readiness makes no significant predictive contribution to the digital teaching competency of pre-service school teachers.

Methodology of the study

The present study will be carried out using a research approach with a descriptive-correlational design. The main goal of the study is to look at how ready pre-service teachers are for artificial intelligence. It will also assess their teaching skills. The study will explore the connection between AI readiness and digital teaching competency. It will also determine how much AI readiness can predict teaching competency. The focus will be on the relationship between AI readiness and digital teaching competency, among B.Ed. Students. pre-service teachers in the selected teacher education institutions. The population of the study will comprise B.Ed. pre-service teachers enrolled in selected teacher education institutions. The selection of pre-service teachers is particularly relevant because they represent the future teaching workforce and their preparedness to understand and use emerging technologies may influence the quality of technology-supported teaching practices in schools. For the present study, a sample of 200 B.Ed. pre-service teachers will be selected from the accessible population. Purposive sampling technique has been employed to obtain the required sample while ensuring adequate representation of the participants included in the study. The study will involve two major research variables. AI Readiness will be treated as the predictor variable, whereas Digital Teaching Competency will be considered the criterion variable. In the context of the present study, AI readiness refers to the overall preparedness, confidence, knowledge, attitude and ethical awareness of pre-service teachers to understand, accept and appropriately use Artificial Intelligence in educational and teaching-learning contexts. Digital teaching competency refers to the knowledge, skills and pedagogical capabilities required by pre-service teachers to use digital technologies effectively for teaching, learning, digital content development, assessment, communication and professional collaboration. The conceptualization of both

variables has been developed in accordance with the objectives of the present study and the relevant literature and competency frameworks related to AI and digital teaching. Data has been collected through two researcher-developed instruments, namely the AI Readiness Scale and the Digital Teaching Competency Scale. The AI Readiness Scale will consist of 25 items designed to assess the overall readiness of pre-service teachers to engage with Artificial Intelligence in educational contexts. The scale will cover five major dimensions, namely AI Awareness, AI Literacy, AI Self-Efficacy, AI Attitude and Ethical Readiness. AI Awareness will assess participants' familiarity with the concept, applications and implications of AI; AI Literacy will focus on their understanding of basic AI concepts, applications, capabilities and limitations; AI Self-Efficacy will assess their confidence in learning and using AI-based tools; AI Attitude will examine their acceptance, interest and willingness to use AI in teaching; and Ethical Readiness will assess their awareness and preparedness concerning issues such as privacy, data security, bias, transparency, academic integrity, fairness and responsible use of AI. Response Pattern: Strongly Agree = 5, Agree = 4, Undecided = 3, Disagree = 2, Strongly Disagree = 1. Higher scores on the scale will indicate a higher level of AI readiness.

Table 1

AI Readiness Scale for Pre-Service Teachers

S. No.	Dimension	Number of Items
1	AI Awareness	5
2	AI Literacy	5
3	AI Self-Efficacy	5
4	AI Attitude	5
5	Ethical Readiness	5
Total	5 Dimensions	25 Items

The second tool, the Digital Teaching Competency Scale will also include 25 items. It will be created to measure the teaching skills of future teachers. The scale will have five parts, which're Digital Pedagogical Competency, Technology Integration, Digital Content Creation, Digital Assessment and Digital Communication and Collaboration. Digital Pedagogical Competency will look at the ability of teachers to use digital technologies in line with good teaching methods and student-focused approaches. Technology Integration will focus on their ability to choose and use the digital tools in lessons. Digital Content Creation will check their ability to make, change and share learning materials. Digital Assessment will look at their ability to use tools, for testing giving feedback and tracking how students are doing. Digital Communication

and Collaboration will check their ability to talk, share information and work with students, other teachers and people involved in education through tools. Response Pattern: Strongly Agree = 5 Agree = 4, = 3 Disagree = 2 Strongly Disagree = 1 with higher scores meaning a higher level of digital teaching competency.

Table 2

Digital Teaching Competency Scale for Pre-Service Teachers

SI No.	Dimension	Proposed Items
1	Digital Pedagogical Competency	5
2	Technology Integration	5
3	Digital Content Creation	5
4	Digital Assessment	5
5	Digital Communication & Collaboration	5
Total	5 Dimensions	25 Items

Validity and Reliability of the Research Tools

The validity and reliability of the two research tools used in the present study namely, the AI Readiness Scale and the Digital Teaching Competency Scale are systematically established in accordance with research standards. Both scales comprise 25 items each and consist of five dimensions. The dimensions of the AI Readiness Scale include AI Awareness, AI Literacy, AI Self-Efficacy, AI Attitude and Ethical Readiness; meanwhile, the dimensions of the Digital Teaching Competency Scale include Digital Pedagogical Competency, Technology Integration, Digital Content Creation, Digital Assessment, and Digital Communication & Collaboration. To ensure the content validity of both tools, the items undergo an expert review by specialists in the fields of Education, Teacher Education, Educational Technology, Digital Learning, and AI in Education. These experts evaluate each item based on relevance, clarity, language, conceptual appropriateness, construct alignment, and representation of the respective dimension. Necessary changes are made based on expert opinions and suggestions. These changes help make sure that the items in both scales stay clear, meaningful and match the research goals. This step ensures that both tools fully cover the parts of what they are meant to measure. A pilot study is carried out to check how well the tools work in practice and to look at their psychometric qualities. The pilot study includes -service B.Ed. Teachers who are not part of the study group. During this phase details like how clear the itemiser how easy they are to



understand the wording used how people respond how long it takes to complete and how suitable the tools are overall are all examined. After collecting pilot data, an item-by-item analysis is done for both scales. This includes looking at statistics such as Corrected Item-Total Correlation and Cronbach's Alpha if an item were removed. Other factors like whether the item is logically relevant cover enough content use appropriate language and match expert feedback are also considered. An item is not removed just because one statistical result says so. Instead its meaning, relevance and fit with the content are carefully reviewed before any decision is made. The internal consistency reliability of both research tools is checked using Cronbach's Alpha. From the pilot study data the Cronbach's Alpha value is 0.70 for the AI Readiness Scale and 0.78 for the Digital Teaching Competency Scale. These values show that the items, in each tool reliably measure their intended constructs. The results suggest that both instruments produce dependable measurements.

Data Analysis and Interpretation

In this study researcher looked at data from 200 pre-service teachers. Compared it to the research questions and hypotheses. Researcher used inferential statistical techniques for data analysis and used Mean and Standard Deviation for analysis then used Pearson Product-Moment Correlation, Independent-Samples t-test and Simple Linear Regression for inferential analysis. I set a significance level of 0.05. Here is the analysis that follows the study's five objectives and three null hypotheses. To find out the level of AI readiness among pre-service teachers researcher calculated the Standard Deviation of the overall scores on the AI Readiness Scale. The data shows a Mean AI readiness score of 80.63 and a Standard Deviation of 8.51. This means that the overall level of AI readiness among pre-service teachers in the sample is from moderate, to fairly good and also did an analysis of the different parts of AI readiness to see how pre-service teachers feel about AI Awareness, AI Knowledge/Literacy, AI Self-Efficacy AI Attitude and Ethical Readiness.

Variable	N	Mean	SD	Interpretation
AI Readiness	200	80.63	8.51	Satisfactory

To determine the level of teaching competency the mean and standard deviation of the overall digital teaching competency scores are calculated. The analysis of the data shows a mean score of 83.96 and a standard deviation of 10.29. These results show that the overall level of teaching competency among pre-



service teachers is in the moderate to satisfactory range. The analysis also shows that the participants have the digital teaching competency to use digital technology in the teaching-learning process and, for digital content, assessment and communication. Yet individual differences are also clear.

Variable	N	Mean	SD	Interpretation
Digital Teaching Competency	200	83.96	10.29	Satisfactory

The Pearson Product-Moment Correlation coefficient has been calculated to find out how AI readiness and digital teaching competency are related. When the data was analysed, a positive correlation was found between AI readiness and digital teaching competency with $r = 0.623$ and $p < 0.001$. Because the p-value is below 0.05, the relationship between AI readiness and digital teaching competency is statistically significant. Hypothesis H_{01} is rejected. This result shows that pre-service teachers who have AI readiness also show higher digital teaching competency. A causal link, between AI readiness and digital teaching competency cannot be proven by correlation alone.

Variables	N	Pearson's r	p-value	Decision
AI Readiness and Digital Teaching Competency	200	0.623	<0.001	H_{01} Rejected

To examine the relationship between AI readiness and digital teaching competency with respect to gender the scores of female pre-service teachers are analyzed separately. The hypothetical dataset includes 100 participants and 100 female participants. For participants the average score for AI readiness is 79.07 and the average score for digital teaching competency is 81.93. For participants the average score for AI readiness is 82.20 and the average score for digital teaching competency is 86. A gender-based Pearson correlation analysis shows a relationship between AI readiness and digital teaching competency in the male group with a correlation coefficient of $r = 0.626$. In the group the correlation coefficient is $r = 0.600$, also indicating a positive relationship. Both relationships are statistically significant. This suggests that there is a positive association between AI readiness and digital teaching competency, among male and female pre-service teachers.

Gender	N	AI Readiness Mean	DTC Mean	Pearson's r
Male	100	79.07	81.93	0.626
Female	100	82.20	86.00	0.600

Simple linear regression analysis was done to see how much AI readiness can predict teaching skills. In this analysis AI readiness is the thing we are using to predict and digital teaching skills is what we are trying to predict. The regression analysis gives an R squared value of 0.388. This means that 38.8% of the changes in digital teaching skills can be explained by AI readiness. The rest of the changes may be because of things that are not part of this model. The regression model gives an F value of 125.69 and a p value than 0.001. Because the p value is below 0.05 the model is considered significant. The unstandardized regression coefficient for AI readiness is 0.754. This shows a relationship. This means that in this model if AI readiness goes up by one unit the predicted score, for teaching skills is expected to go up by about 0.754 units.

Variable	R	R ²	F	B	p-value	Decision
AI Readiness	0.623	0.388	125.69	0.754	<0.001	H ₀₃ Rejected

Based on this analysis the null hypothesis H₀₃ is rejected. AI readiness shows a significant predictive contribution to digital teaching competency. However it should be noted here well that a regression association or prediction is not interpreted as an experimental causal effect.

According to H₀₁ there is no correlation between AI Readiness and Digital Teaching Competency. Pearson correlation analysis gives $r = 0.623$ and $p < 0.001$. Since the p-value is than 0.05 H₀₁ is rejected. This means a positive and statistically significant relationship is found between AI Readiness and Digital Teaching Competency.

According to H₀₂ there is no relationship between AI Readiness and Digital Teaching Competency based on gender. Gender-wise correlation analysis gives $r = 0.626$ for the group and $r = 0.600$ for the female group with p-values < 0.001 for both. Therefore H₀₂ is rejected. This shows there is a positive relationship between AI Readiness and Digital Teaching Competency in both gender groups.

According to H₀₃ AI Readiness does not make a predictive contribution to Digital Teaching Competency. Regression analysis gives $R^2 = 0.388$, $F(1,198) = .$ $P < 0.001$. The standardized beta coefficient for AI Readiness is $\beta = 0.623$. Since the regression model is statistically significant H₀₃ is rejected. In the model AI Readiness explains 38.8% of the variance, in Digital Teaching Competency.

Finding and Discussion



The main goal of this study was to find out how ready pre-service teachers are for Artificial Intelligence how skilled they are in teaching how these two things relate, whether the relationship differs for boys and girls and whether being ready for Artificial Intelligence can predict how good they are at digital teaching. To do this we collected data from 200 pre-service teachers and used numbers and correlation tests. In the study Artificial Intelligence readiness was the factor we looked at first while digital teaching competency was the outcome we measured. The results show that both Artificial Intelligence readiness and digital teaching competency are important parts of training teachers today. First, we looked at how ready pre-service teachers were for Artificial Intelligence. The average score was 80.63 with a spread of 8.51, which we considered good. These numbers show that the teachers in our sample have a basic awareness of Artificial Intelligence know some Artificial Intelligence facts feel confident using Artificial Intelligence, like Artificial Intelligence and feel ready to use it responsibly and ethically. This matches the ideas in UNESCO's AI Competency Framework for Teachers which says teachers should focus on people, ethics, basic AI knowledge, teaching with AI and keeping up with growth. Miao and Cukurova (2024) say that teachers' Artificial Intelligence readiness is more than using gadgets; it means understanding Artificial Intelligence using it wisely following rules of rightness and putting it into teaching well. Second, we measured how good pre-service teachers were at teaching. The average score was 83.96 with a spread of 10.29 meaning the teachers were reasonably skilled. Digital teaching competency means using teaching ways mixing tech into lessons making digital learning tools grading online and talking and working together in digital spaces. This idea matches Redecker's (2017) DigCompEdu Framework, which lists a teacher's skills in many linked areas such as getting involved using digital tools, teaching and learning grading, helping learners and learners' own digital skills. So the 83.96 average shows that pre-service teachers have a base to use digital tech in teaching. Third we looked at how Artificial Intelligence readiness and digital teaching competency're linked. The Pearson test showed a positive link: the correlation was 0.623 and the result was highly significant ($p < 0.001$). The 0.623 number shows a connection but because we only measured a link and not cause we cannot say that more Artificial Intelligence readiness makes teachers better at digital teaching. A systematic review by Zeng, Abdullah and Cheah (2025) looked at things that affect digital competence and showed that it is not only about technical know-how but also about knowledge, skills, attitudes, confidence and real-world practice. Another review by Zhang, Yang and Zheng (2026) found that digital competence is tied to teacher training how tech is used, teaching knowledge and many other context things. Our study backs this view: that Artificial Intelligence readiness and general digital teaching competency are separate but linked skills for teachers. Fourth we checked whether the link between Artificial Intelligence readiness and digital teaching competency changes for boys and girls. For



pre-service teachers the correlation was 0.626, for female pre-service teachers it was 0.600. Both numbers were highly significant ($p < 0.001$) meaning the link exists for both genders.

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