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Empowering Future Educators for Industry Integrating Digital Literacy in Teachers Preparation for the Digital Era at Secondary School Level in District Kot Addu South Pakistan

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Abstract

The rapid advancement of digital technology has made digital literacy essential for educators, particularly in regions like District Kot Addu, South Pakistan. This study, "Empowering Future Educators: Integrating Digital Literacy in Teacher Preparation," examines secondary school teachers' digital literacy skills in this area. The method used in this research paper is a quantitative in nature, and also used software SPSS latest version 22. The population of this research is kot addu south Pakistan teachers. A total of 450 teachers have been discovered as illustration of this study because they have met the criteria. Aggregate linear abnormality method is used for possibility analysis in this study. The results of data analysis show that the digital literacy variable has a significance value of 0.067 > 0.05 and digital era has a significance value of 0.067 > 0.05 so that it can be determined that these two variables had no effect on empowering future educators in kot addu Islamic secondary school teachers, whereas the digital tools variable has a significance value of 0.000 <0.05, it is certain that it has an influence on the use of the digital literacy tools of kot addu south Pakistan secondary teachers.

Keywords: Digital Literacy, Teachers preparation, Professional Development, Gender Comparison.

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1. Introduction

The 21st century has witnessed unprecedented advancements in digital technology, fundamentally transforming various sectors, including education. As schools increasingly integrate technology into teaching and learning, the need for educators proficient in digital literacy has become critical. Digital literacy, defined as the ability to effectively use digital tools and resources, is no longer a supplementary skill but a core competency for teachers (Ferrari, 2013). It enables educators to enhance instructional practices, engage students more effectively, and prepare them for a rapidly evolving digital world.

Digital literacy is increasingly recognized as a fundamental skill for educators in the 21st century. It goes beyond the mere ability to use digital tools, encompassing a comprehensive understanding of how to apply these tools effectively in teaching and learning contexts (Ferrari, 2013). In this regard, digital literacy is critical not only for enhancing instructional practices but also for preparing students to thrive in a digital society (Buckingham, 2015). As the global educational landscape shifts towards more technology-integrated approaches, the role of teachers in fostering digital literacy becomes more crucial. Teachers are expected to guide students in navigating digital environments, assessing digital content critically, and creating digital artifacts.

Research suggests that when teachers are proficient in digital literacy, they can facilitate more engaging, interactive, and personalized learning experiences (Kivunja, 2014). However, a significant challenge remains in ensuring that teachers, especially in developing countries, are adequately prepared for these demands. For instance, a study by Koehler and Mishra (2009) highlights the necessity of integrating technological knowledge with pedagogical and content knowledge (TPACK) to create effective teaching practices in the digital age.

Statement of the problem:

The integration of digital literacy in education has become essential for preparing students for the demands of the digital era. However, in District Kot Addu, South Pakistan, the current digital literacy levels of secondary school teachers, their impact on students' academic performance, and the gender disparities in technology adoption remain unclear. This study seeks to address these gaps to ensure effective teacher preparation and equitable access to digital learning opportunities.

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Volume No: 02 Issue No: 01 (2025)
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April 24-25, 2025

Objectives of the study:

1. To assess the current competencies in digital literacy skills on Empowering Future Educators of Islamic secondary school's teachers of district kot addu south Pakistan.
2. To investigate the relationship between teachers' digital literacy and the digital era and student's academic performance in digital learning environment in Islamic secondary school teachers of district kot addu south Pakistan.
3. To Investigate the impact of digital era on Empowering Future Educators of Islamic secondary school's teachers of district kot addu south Pakistan.
4. To analyse the combined effect of digital literacy skills and the digital era on Empowering Future Educators Islamic secondary school's teachers of district kot addu south Pakistan.

Significance of the study:

This study is significant as it addresses the critical role of digital literacy in preparing secondary school teachers in District Kot Addu, South Pakistan, for the demands of the digital era. By assessing teachers' competencies, exploring the link between their digital literacy and students' academic performance, and identifying gender-based disparities in technology adoption, the findings will guide targeted interventions to enhance teacher training programs. This, in turn, will empower educators to meet industry standards and improve the overall quality of education in the region.

Literature of the review:

Teacher preparation programs play a pivotal role in equipping future educators with the skills needed for the digital age. The integration of digital literacy into these programs has been advocated as essential for building a workforce of teachers who are competent in using digital technologies to enhance learning (Mishra & Koehler, 2006). According to Sang et al. (2010), pre-service teacher training that includes digital literacy components significantly influences teachers' confidence and competence in using technology in their future classrooms.

However, the implementation of digital literacy in teacher education is not without challenges. Many programs, particularly in developing regions, struggle with insufficient resources, inadequate infrastructure, and a lack of qualified trainers (Tondeur et al., 2017). Furthermore, there is often a

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International Conference on Innovating for a Sustainable Future: Global Challenges and Solutions
April 24-25, 2025

mismatch between the digital skills taught in teacher preparation programs and the actual technological demands in classrooms (Voogt & McKenney, 2017). This gap is particularly pronounced in rural areas, such as District Kot Addu, where access to digital tools and training is limited.

Gender disparities in access to and use of digital technologies are well-documented, with women often facing more significant barriers than men (Hafkin & Huyer, 2008). In educational settings, female teachers frequently report lower levels of digital literacy compared to their male counterparts, which can be attributed to various factors including societal norms, limited access to technology, and fewer opportunities for professional development (UNESCO, 2018).

A study by Aesaert and van Braak (2014) found that male teachers tend to have higher self-efficacy in using digital tools and are more likely to integrate technology into their teaching practices. This gender gap is further exacerbated in regions with existing gender inequalities, where female teachers may have less exposure to digital technologies both in their personal lives and in their professional training (Bingimlas, 2009).

Addressing these disparities is crucial, as the digital divide can have far-reaching implications not only for the teachers themselves but also for the students they educate. When female teachers are less proficient in digital literacy, it may limit the digital learning opportunities available to their students, particularly in all-girls schools (Wodon et al., 2018).

Ongoing professional development is essential for teachers to stay current with the rapidly evolving digital landscape. Studies show that effective professional development programs should be continuous, collaborative, and directly relevant to teachers' instructional contexts (Desimone & Garet, 2015). These programs should also include hands-on experiences with digital tools, opportunities for reflective practice, and support from peers and mentors (Vrasidas, 2015).

However, in many regions, including District Kot Addu, professional development opportunities for digital literacy are often limited. This scarcity is due to various factors, including financial constraints, lack of access to up-to-date technology, and insufficient institutional support (Pelgrum, 2001). As a result, many teachers are left to navigate the complexities of digital teaching on their own, which can lead to inconsistent and suboptimal use of technology in the classroom.

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April 24-25, 2025

A study by Inan and Lowther (2010) highlighted the positive impact of well-structured professional development on teachers' attitudes towards and use of technology. Teachers who participated in comprehensive digital literacy training programs reported higher levels of confidence and a greater willingness to incorporate digital tools into their teaching practices.

The implementation of digital literacy in rural areas, such as District Kot Addu, faces unique challenges that are often distinct from those encountered in urban settings. These challenges include limited access to digital infrastructure, inadequate funding for technological resources, and a shortage of trained educators who can effectively integrate digital tools into the classroom (Gulati, 2008). The digital divide between rural and urban areas is a persistent issue that affects both students and teachers, with rural schools often lagging in the adoption of digital technologies (Trucano, 2012).

Studies have shown that in rural areas, teachers may have limited exposure to digital technologies in their own educational backgrounds, which can lead to a lack of confidence and competence in using these tools in their teaching practices (Mueller, Wood, Willoughby, Ross, & Specht, 2008). Furthermore, the professional development opportunities available to rural teachers are often less frequent and less comprehensive than those in urban areas, exacerbating the challenges they face in acquiring digital literacy skills (Hew & Brush, 2007).

In Pakistan, the disparities in digital literacy between urban and rural teachers are particularly pronounced, with rural educators often receiving less training and support in using digital tools (Bhatti, Aslam, & Huma, 2016). This lack of training contributes to a cycle of digital exclusion, where rural students are less likely to benefit from the educational advantages that digital literacy can provide.

In developing countries like Pakistan, the integration of digital literacy into teacher preparation programs presents both opportunities and challenges. While digital tools can bridge educational gaps and foster inclusive learning environments, there is often a significant disparity in access to technology and digital skills among teachers, particularly in rural areas (UNESCO, 2018). The district of Kot Addu in South Pakistan exemplifies this digital divide, where many secondary school teachers lack adequate training in digital literacy, limiting their ability to fully leverage technological resources in their classrooms.

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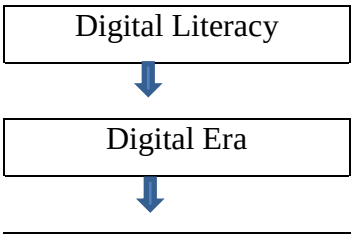
The successful integration of digital literacy into education requires strong policy and institutional support. Governments and educational institutions play a crucial role in creating the conditions necessary for teachers to develop and apply digital literacy skills. This includes providing access to digital infrastructure, offering continuous professional development, and ensuring that digital literacy is embedded in the curriculum (Pelgrum, 2001).

In many countries, national education policies have begun to emphasize the importance of digital literacy, recognizing it as a key component of modern education. For example, the European Union's Digital Education Action Plan (2018) outlines strategies for enhancing digital literacy across all levels of education, including teacher training (European Commission, 2018). Similarly, in the United States, the National Education Technology Plan (2017) emphasizes the need for teachers to be proficient in digital literacy to meet the demands of 21st-century education (U.S. Department of Education, 2017).

In Pakistan, however, the implementation of digital literacy policies has been uneven, particularly in rural areas. While national initiatives such as the Digital Pakistan Vision aim to improve digital infrastructure and skills across the country, the impact of these policies on rural education systems has been limited (Nabi, Khan, & Khan, 2019). To address this gap, there is a need for targeted policies and programs that specifically focus on improving digital literacy among teachers in rural areas, supported by adequate funding and resources.

Furthermore, gender disparities in digital literacy training and proficiency have been noted in various studies, with female teachers often having less access to digital tools and training opportunities compared to their male counterparts (Livingstone, 2012). This imbalance can exacerbate existing gender inequalities in education and impede the overall effectiveness of digital literacy initiatives.



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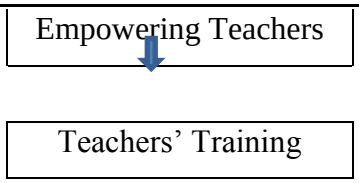


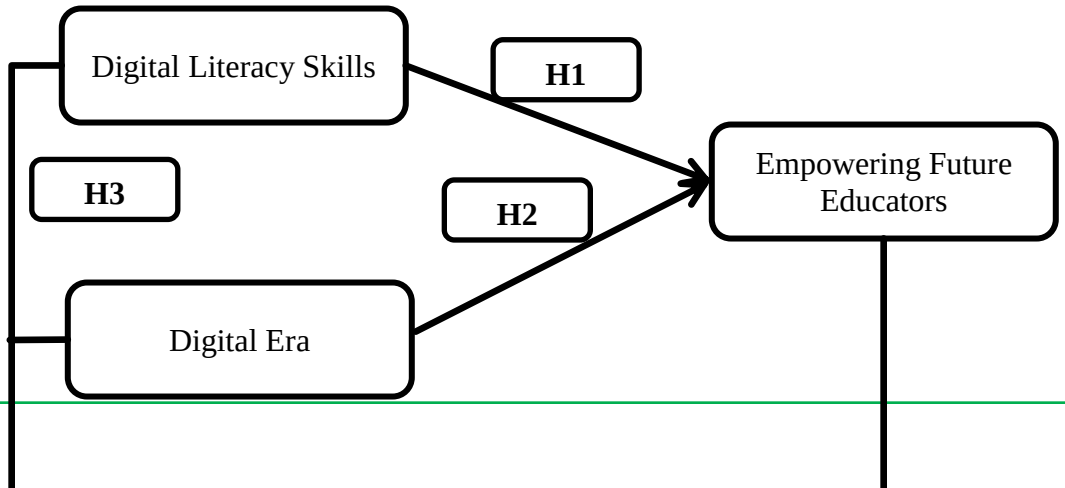
Model of the Study 1.1

2. Methods

CONCEPTUAL FRAMEWORK AND HYPOTHESES

Conceptual framework

In this study the conceptual framework formed aims to Empowering Future Educators for Industry Integrating Digital Literacy in Teachers Preparation for the Digital Era at Secondary School Level in District Kot Addu South Pakistan. The conceptual framework of this research is as follows:



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April 24-25, 2025

H4

Hypothesis

Based on the theory that has been explained, the research hypothesis is as follows:

Hypothesis 1: There is current competencies digital literacy skills on Empowering Future Educators of Islamic secondary school's teachers of district kot addu south Pakistan.

Hypothesis 2: There is an investigate the relationship between teacher's digital literacy and digital era and student's academic performance in digital learning environment in Islamic secondary school's teachers of district kot addu south Pakistan.

Hypothesis 3: There is impact of digital era on Empowering Future Educators of Islamic secondary school's teachers of district kot addu south Pakistan.

Hypothesis 4: There is the combined effect of digital literacy skills and digital era on Empowering Future Educators Islamic secondary school's teachers of district kot addu south Pakistan.

RESEARCH METHODOLOGY

Methodology

The preparation chosen in this study is a quantitative method. Accordant to (Sugiyono, 2017)research methods based on empiricism philosophy, in order to interpret the population or sample, collected data with research assistance tools, as recovered as analyze statistical data with the purpose of experiment hypotheses, it can be named a quantitative formulation method. Purposeful Sampling method was used in this research. Purposeful Measurement is a method of determinant a research sample that takes into relationship definite holding (Sugiyono, 2017). This study used a research implement or instrument by distributing questionnaires via the Google Form link to 450 samples of Islamic secondary school's teachers of district kot addu south Pakistan with digital tools and digital era and enhancing future educators users to get valid and high-fidelity data. Further more, in this study the data were analyzed using the SPSS latest version program to test validity, reliability, condition, multiple correlation and heteroscedasticity. The t-test was applied out to test the planned hypotheses.

Data Source and Collection

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April 24-25, 2025

For reality and hundred percent for truth result in research, the method was chosen quantitative in nature. For collecting data the questionnaire was formed and distributed the questionnaire and respondents or collecting data primary data. According to (Sugiyono, 2017)basicallay primary data is information, data which directly obtained from the sources to researcher, and data was collected in secondary Islamic school's teachers in kot addu south Pakistan. For good and accurate result in research for accurate data information, the researcher distributed the form through google form and population mean Islamic secondary teachers filled the form on google. Data have been collected from Islamic secondary teachers there was total population as a sample was taken 450 teachers from muzaffargarh south Pakistan.

Hypothesis testing

The procedure for evaluating indication from a sample on which to base determination about a teachers is the explanation of a hypothesis test. Testing the hypothesis in this study direct the basic proficiency of synchronic investigating with frequency distribution. Different hypothesis tests to test the hypothesis are a mention to test whether there is an causation of variable X on variable Y. The X variables in this study are , digital literacy,digital era and future educators. . Y variable is use of future educators of Islamic secondary school's district kot addu south Pakistan. This study uses the t test is as follows: t test According (Widjarjono, 2010)is the test used to test how much influence each independent variable individually has on the dependent variable.

2.1 Study Area

The study was conducted in the district of Kot Addu, located in the southern part of Punjab Province, Pakistan. This region is predominantly inhabited by economically disadvantaged and underdeveloped communities, many of whom rely on daily wage labor for their livelihood. Educational institutions in the area operate under governmental policies aligned with the constitutional mandate of free and compulsory education, as enshrined in Article 25-A of the Constitution of Pakistan, 1973. Additionally, the district is home to a class of landowners who hold significant socio-economic influence over the local population, further shaping the region's socio-economic dynamics.

2.1 Data Collection methods and sampling technique

This study utilized a quantitative research method to assess the integration of digital literacy in

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International Conference on Innovating for a Sustainable Future: Global Challenges and Solutions
April 24-25, 2025

teacher preparation. Data were collected through a structured survey administered to a sample of secondary school teachers in District Kot Addu, South Pakistan. The survey included questions on teachers' knowledge and proficiency with digital literacy tools, their participation in digital literacy training programs, and their attitudes toward technology use in education.

The survey was distributed to a randomly selected sample of 500 teachers, and a total of 420 completed responses were analyzed. Statistical techniques, including descriptive statistics and inferential analysis, were used to examine the data and identify patterns and correlations. The analysis focused on evaluating the effectiveness of digital literacy training programs and comparing digital literacy levels between male and female teachers.

Ethical considerations were addressed by ensuring informed consent, maintaining participant confidentiality, and using the data solely for research purposes. The results provided quantitative insights into the current state of digital literacy among teachers and the impact of training programs on their professional development.

3. Results and Discussions

3.1 Table Current digital literacy competencies on empowering future educators of secondary school teachers of kot addu south Pakistan.

	Chowk Azam	Fatehpur	Karor	Chobara
Male	18.62%	7.18%	16.09%	9.44%
Female	13.32%	5.65%	7.76%	19.97%
Total	31.94%	12.83%	23.84%	29.41%

It reveals that males in Chowk Azam Tehsil have performed 18.62% while females perform 13.32% in total, they performed 31.94% whereas in Fatehpur Tehsil males have performed7.18% and female have performed 5.65% in total they performed 12.83% as well as in Tehsil Karor male have performed 16.09% and female have performed 7.76% in total they performed 23.84% similarly in Tehsil Chobara male have performed 9.44% and female have performed 19.97% in total they performed 29.41%.

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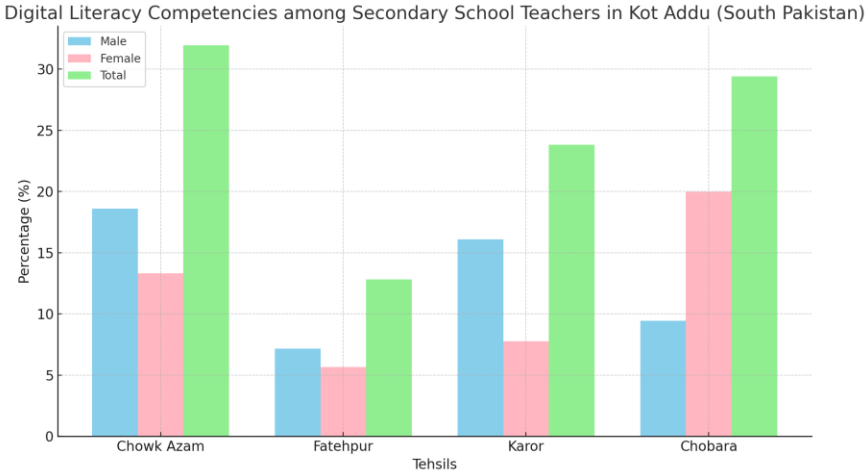
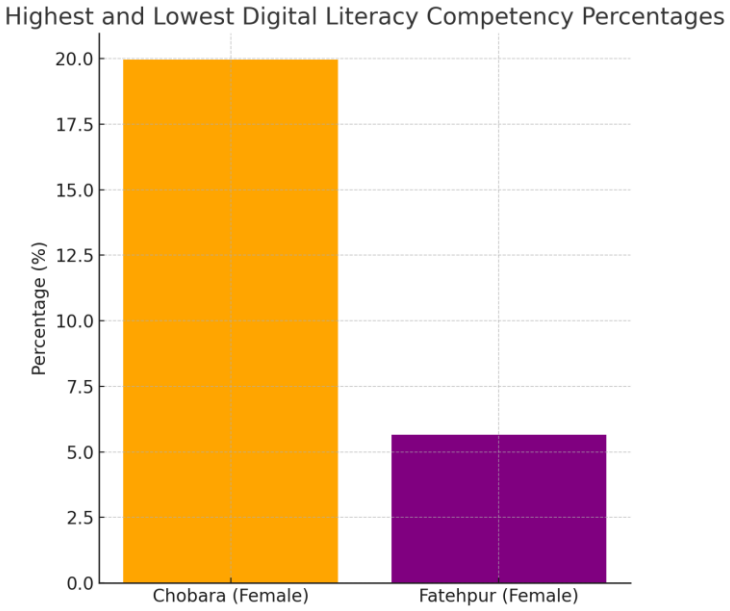


According to this collected data Females in Tehsil Chobara performed more 19.97% which is more than in Tehsil Chowk Azam 13.32%. So, in Tehsil Chobara the females performed better than males in Tehsil Chowk Azamin total knowledge and proficiency in digital literacy tools for future educators.



3.3 Table Relationship between teacher's digital litercay and Digital era and student's academic performance in digital learning environment in district kot addu south Pakistan.

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Volume No: 02 Issue No: 01 (2025)
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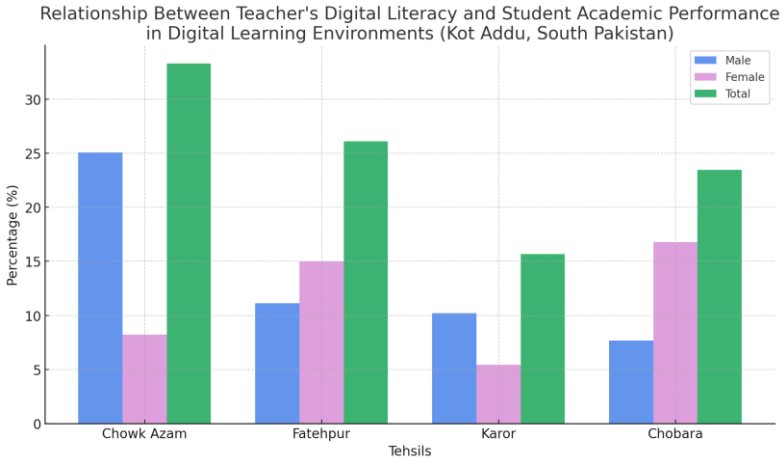
April 24-25, 2025

	Chowk Azam	Fatehpur	Karor	Chobara
Male	25.05%	11.13%	10.22%	7.67%
Female	8.24%	14.96%	5.45%	16.77%
Total	33.29%	26.09%	15.67%	23.44%

It reveals that males in Chowk Azam Tehsil have performed 25.05% while females perform 8.24% in total, they performed 33.29% whereas in Fathepur Tehsil male have performed 11.13% and female have performed 14.96% in total they performed 26.09% as well as in Tehsil Karor male have performed 10.22% and female have performed 05.45% in total they performed 15.67% similarly in Tehsil Chobara male have performed 07.67% and female have performed 16.77% in total they performed 23.44%.



According to this collected data Female in Tehsil Chobara performed more16.77% which is more in Tehsil Fathepur 14.96%. So, in Tehsil Chowk Azam the males performed better then females in Tehsil

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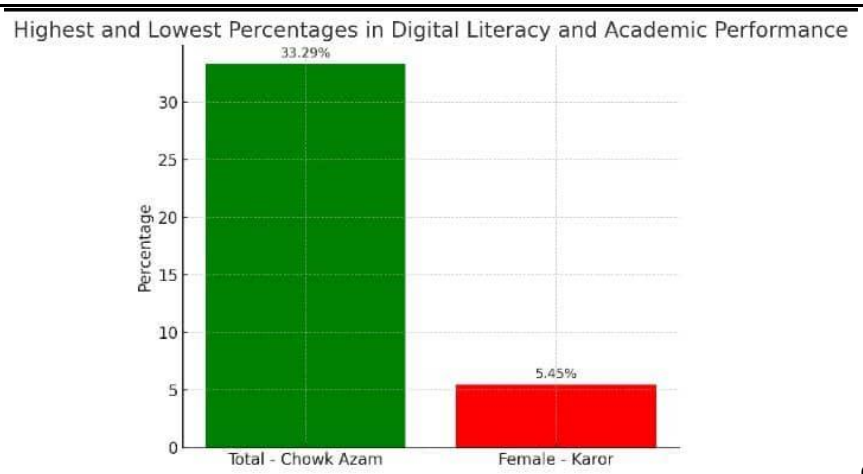

Chobara in Effectiveness of digital literacy training programs for future teachers' professional developments .

3.4 Table Comparison between male and females teachers' knowledge of Digital literacy tools, and digital era their technology adoption.

Sr no.	*Tehsil*	*Performance by percentage*
1.	*Chowk Azam*	*33.08%*
2.	*Fatehpur*	*22.52%*
3.	*Karor*	*26.66%*
4.	*Chobara*	*15.33%*

In an overall performance of total Four Tehsils in Tehsil Chowk Azam teachers performed 33.08% and in Tehsil Fatehpur teachers performed 22.52% and in Tehsil Karor teachers performed 26.66% whereas in Tehsil Chobara teachers performed 15.33%. Because in Tehsil Chobara teachers performed low rather than others Tehsils of District Kot Addu so there is less usage of digital literacy tools using digital technology of this Tehsil.

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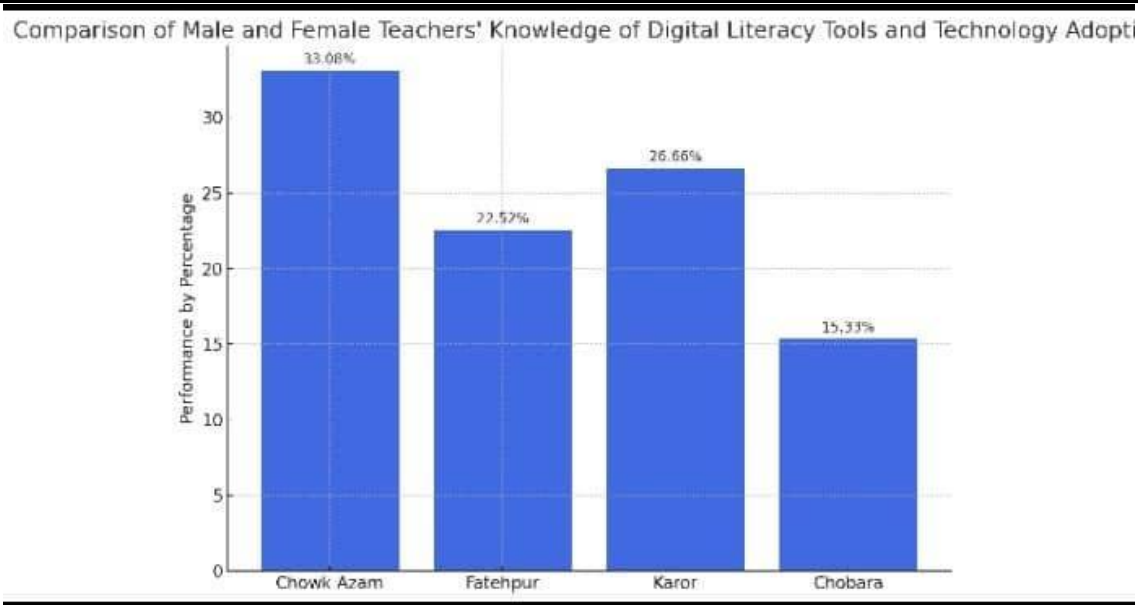

The findings from this study can be deduced that Digital literacy is crucial for modern education, particularly in enhancing student engagement and learning outcomes. However, challenges such as limited access to technology, especially in rural areas like District Kot Addu, hinder its effective implementation. Teachers' attitudes and confidence in using digital tools significantly influence their integration into teaching practices. There is a noticeable disparity in digital literacy between urban and rural educators, which can contribute to educational inequality. Strong policy support and targeted professional development are essential to bridging these gaps and ensuring that all teachers benefit from digital literacy for future educators.

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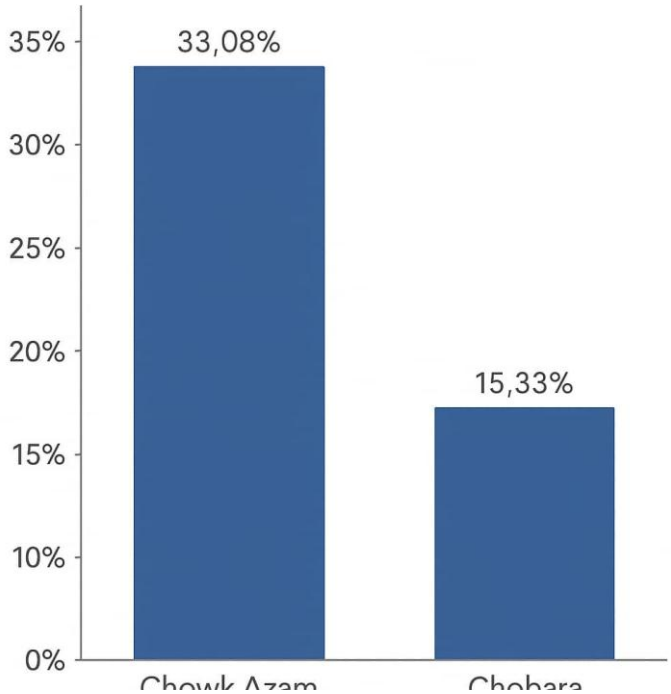

Results And Discussion

1. **Current digital literacy competencies on empowering future educators of secondary school teachers of kot addu south Pakistan**	SS	S	TS	STS
1. I am confident in performing basic computer operations such as creating documents, managing files, and using email.	19	80	3	4

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2. I regularly use digital tools (e.g., educational apps, online resources, or multimedia presentations) to enhance my teaching.	16	72	18	0
3. I am aware of and implement internet safety and data security measures in my professional activities..	9	58	37	2

2 **Relationship between teacher's digital litercay and digital era and student's academic performance in digital learning environment in district kot addu south Pakistan.**	SS	S	TS	STS
1. I regularly use digital tools such as projectors, educational software, or online platforms in my teaching.	7	61	34	4
2. I am confident in preparing and delivering lessons using digital technology.	22	79	5	0
3. I guide students on how to use digital resources to enhance their learning.	14	85	7	0

4 **Comparison between male and females teachers' knowledge of Digital literacy tools, and their technology adoption.**	SS	S	TS	STS

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International Conference on Innovating for a Sustainable Future: Global Challenges and Solutions
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1. I am proficient in using basic digital tools such as word processors, spreadsheets, and presentation software.	13	72	20	1
2. I can use online collaboration tools (e.g., Google Workspace, Microsoft Teams) to enhance teaching and communication.	14	58	31	3
3. I am capable of troubleshooting minor technical issues while using digital tools in the classroom.	12	61	28	5

The results of the research on 450 respondents have gone through the validity test stage. A total of 9 questions from the variables X1, X2, and Y have been tested for validity and declared valid. This identified that the 9 existing questions could be used to measure the influence of digital literacy, digital era and future educators users of secondary Islamic school's teachers. Based on the r table, because it uses 450 respondents with a limit of 0.05 . So the value on the Pearson Correlation validity test of all the variables tested has a value of > 0.1891 . Then it can be concluded that the 9 items are valid. I feel capable of solving problems related to computer use 7 61 34 4 I feel confident using a computer (desktop or laptop) to prepare my lesson plans and teaching materials.. 22 79 5 0 I am able to confidently use educational software and digital tools (e.g., learning management systems, interactive whiteboards) to enhance my teaching l. 14 85 7 0 I believe I can easily troubleshoot common technical issues (e.g., software errors, internet connectivity issues) when using ICT tools in class.

This is because the Cronbach's alpha coefficient on the variable digital literacy and digital era has a value that exceeds or is greater than 0.70 , which means that the test results of this research instrument are declared valid and reliable from 3 digital era questions and 3 digital literacy questions . At the reliability test stage, the digital era variable has a Cronbach's alpha value of 0.883 while digital literacy has a Cronbach's alpha value of 0.873 as well as for the enhancing future educators variable

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Volume No: 02 Issue No: 01 (2025)
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April 24-25, 2025

which has a Cronbach's alpha value of 0.959. Because all variables have Cronbach's alpha, they have a value of more than 0.60 . So, the results of the reliability test for the variable use of future educators with the Cronbach's Alpha test are 0.917. From this test, it can be concluded that overall the variables are declared reliable. In the normality test using Skewness and Kurtosis. Skewness is to measure the Skewness of the data while Kurtosiis is to measure the peak of the distribution data. Data is said to be normally distributed if it has a Skewness and Kurtosis value close to 0. In the Skewness and Kurtosis sections it can be seen that the value of the digital era variable is -0.438 and 0.455; digital literacy variables of -0.173 and 0.962; future educators variable of 0.132 and 0.35. Therefore it can be concluded that the data is normally distributed.

In the hiteroscedasticity test using the Glejser method, Abs_RES acts as the dependent variable. While the value of sig. for the digital era variable (X1) of 0.826 or 82.6%; sig. digital literacy (X2) of 0.151 or 15.1%; and future educators significance (X3) of 0.077 or 7.7%. In this heteroscedasticity test, it can be concluded that this does not occur in this regression model because the significance value of the three variables exceeds 0.05 or 5%. Based on the results of the multicollinearity test on the Col-linearity Diagnostics table, the Eigenvalue is 0.002 <0.01 whereas , the Condition Index value is 46.609 > 30. Therefore, it is concluded that multicollinearity does not occur. Based on the heteroscedasticity test using the Glejser method, Abs_RES acts as the dependent variable. While the value of sig. for the digital era variable (X1) of 0.826 or 82.6%; sig. digital literacy (X2) of 0.151 or 15.1%; and sig. Future educators (X3) of 0.077 or 7.7%. In the heteroscedasticity test it was concluded that this did not occur in the regression model because the significance value of the three variables was greater than 0.05 or 5%.

Descriptive Statistics

	N	Range	Minimum	Maximum	Means	STD Daviation	Variances
Digital literacy skill(X1)	440	6	3	9	6,23	1,469	2.158
Digital Era(X2) Empowering	440	7	3	10	6.07	1,456	2,119
	440						

Multidisciplinary Journal of Emerging Needs of Curriculum
ISSN Online: 3078-3054, ISSN Print: 3078-3046
Volume No: 02 Issue No: 01 (2025)
International Conference on Innovating for a Sustainable Future: Global Challenges and Solutions
April 24-25, 2025

Future Educators(Y) Valid N (listwise)	440	9	3	12	6.59	1,876	3,520

In the table above, it is known that the number of respondents (N) was 440 teachers. digital era has the smallest value of 3 and the largest value of 9. This value indicates that the response to digital era is between 3 and 9. Meanwhile, the standard deviation of 1.469 is greater than the average, namely, 6.23 . That is, from digital era has a large distribution. Digital literacy has a minimum value of 3 and a maximum value of 10, which indicates that the response to digital literacy is between 3 and 10 . The standard deviation of 1.456 is greater than the mean of 6.07 which means that the data has a large distribution. Future educators has a minimum value of 3 and a maximum value of 12, an average of 6.59 and a standard deviation of 1.876. Meanwhile, when using a digital literacy tools, the minimum value is 6, the maximum value is 12, the average is 7.25 and the standard deviation is 1.972.

Hypothesis testing

t test

Coefficients a

Model	UnStandardized Coffecients		Standardized Coffecients	t	Sig.
	B	std. Error	Betas		
1 (constant)	1,559	,527		2,959	,004
Digital literacy skills(X1)					
Digtal Era(X2)	,637	,345	,474	1,848	,067
Empowering Future Educators(Y)	,706	,172	,673	4,133	,000

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Volume No: 02 Issue No: 01 (2025)
International Conference on Innovating for a Sustainable Future: Global Challenges and Solutions
April 24-25, 2025

Based on the Constant table above, it can be seen that the sig. for the digital literacy variable , namely 0.067 > 0.05; the significance value of the digital era variable is 0.090 > 0.05; and the value of the future educators variable is 0.000 <0.05. So, it can be concluded that H1 or the first hypothesis is rejected. This means that digital era does not have a significant effect on the enhancing the future educators in Islamic secondary school's teachers of kot addu south Pakistan. Whereas H2 or the second hypothesis is rejected because the significance value is 0.090 > 0.05. This means that digital literacy has no significant effect on the enhancing future educators in Islamic secondary school's teachers of kot addu south Pakistan. H3 or the third hypothesis is accepted because the significance value is 0.000 < 0.05, meaning that future educators has a significant effect on the use of digital literacy tools and digital era on the empowering the future educators in Islamic secondary school's teachers of kot addu south Pakistan.

Conclusion

In conclusion, the study revealed that integrating digital literacy into teacher preparation significantly improved teaching practices and student outcomes. Despite the challenges encountered, such as limited resources and gender disparities, the targeted training and resource expansion were effective in enhancing teachers' digital competencies and fostering a more equitable learning environment.

The result of the t value in the linear regression test on the digital literacy skills variable is 1.848 with the sig. 0.067 > 0.05 which means that there is no significant effect of digital literacy skills on the empowering future educators skills in Islamic secondary school's teachers of kot addu south Pakistan, so it can be concluded that hypothesis 1 is rejected.

2. The result of the t value in the multiple linear regression test on the digital era variable is -1.710 with a sig. 0.067 > 0.05, also which means there is no significant impact on future educators in Islamic secondary school's teachers of kot addu south Pakistan. So it can be also concluded that the second hypothesis also rejected.

3. in the other third one the result of the t value in the multiple linear regression test on the future educators variable is 4.133 with a significance value of 0.000 <0.05, which means that both digital literacy and digital era has an effect on the future educators among in Islamic secondary school's

ISSN Online: 3078-3054, ISSN Print: 3078-3046
Volume No: 02 Issue No: 01 (2025)
International Conference on Innovating for a Sustainable Future: Global Challenges and Solutions
April 24-25, 2025

teachers of kot addu south Pakistan. So,the second last third is it can be concluded that hypothesis is accepted.

4. Based on testing with the f test (Simultaneous) it was found that the variable digital era , digital literacy , and future educators had a significance value of 0.000 < 0.05 . This means that digital era , digital literacy , and future educators have an influence on the use of digital tools and future educators for in Islamic secondary school's teachers of kot addu south Pakistan or hypothesis 4 is accepted.

Limitations

The study faced several limitations, including limited funding and time constraints, which impacted the sample size and the scope of the methodology. Additionally, the study was hindered by the remoteness of certain areas within Kot Addu and the lack of proper infrastructure, making data collection challenging. Despite these limitations, it is anticipated that the demographic characteristics of households in the district are relatively homogenous. Most residents rely on daily wage labor and agricultural activities, often using similar methods and tools for their livelihoods. Therefore, Kot Addu was selected as a representative area for the study. To enhance the reliability of the findings, field observations and secondary data were utilized as complementary sources.

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International Conference on Innovating for a Sustainable Future: Global Challenges and Solutions
April 24-25, 2025

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April 24-25, 2025

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