



## **BRIDGING THE DIGITAL DIVIDE: UNRAVELING THE NEXUS BETWEEN PRIMARY SCHOOL TEACHERS' COMPUTER SKILLS, ICT INTEGRATION**

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### **ABSTRACT**

*In the dynamic landscape of modern education, this comprehensive research delves into the intricate relationship between primary school teachers' computer skills, their integration of Information and Communication Technology (ICT) in the classroom, and the ensuing impact on the teaching and learning processes. Employing a robust quantitative research design, the study articulates three primary objectives: firstly, to rigorously assess the current state of primary school teachers' computer skills and knowledge; secondly, to explore the extent of ICT integration within their teaching practices; and thirdly, to unravel the nuanced interplay between teachers' computer skills and ICT integration. The research focuses on the vibrant educational milieu of the Telangana, engaging a diverse sample of 61 primary school teachers. The participants, comprising 37 female and 24 male teachers, voluntarily contributed to the study, ensuring a balanced representation. The multi-faceted questionnaire, organized into four sections, meticulously probes teacher profiles, attitudes towards ICT integration, perceived ICT skills, and the depth of ICT integration in educational contexts. Employing both four-point and three-point Likert scales, the questionnaire captures the richness of participants' perspectives, adding depth to the analysis. The significance of this research lies in its potential to inform transformative strategies for teacher training, curriculum development, and educational policy. By illuminating the current digital landscape of primary education, this study contributes to the ongoing discourse on technology integration, offering practical insights that can propel positive changes in teaching methodologies and learning outcomes. As we celebrate the one-year milestone of this research journey, the findings encapsulate a broader vision for the future of primary education, underpinned by the seamless fusion of teachers' technological proficiency and the integration of ICT tools into the fabric of classroom instruction.*

**Keywords:** Primary school teachers, computer skills, ICT integration, classroom learning, digital competencies, educational technology, teacher training, etc.

### **I. INTRODUCTION**

In the ever-evolving landscape of education, the role of primary school teachers has become increasingly complex and multifaceted. Traditional pedagogical approaches now intersect with the transformative influence of technology, bringing forth a paradigm shift that demands a nuanced understanding of educators' digital competencies. This article embarks on a comprehensive exploration into the world of primary school teachers, focusing on their computer skills, the integration of Information and Communication Technology (ICT) in the classroom, and the ensuing impact on teaching and learning processes. As technology becomes an integral part of the educational ecosystem, understanding how teachers navigate this digital terrain becomes imperative for shaping the future of primary education.

This study, rooted in a robust quantitative research design, unfolds within the dynamic educational milieu of the Telangana. The region's diverse landscape serves as a microcosm for exploring the broader implications of educators' technological proficiency. With the overarching goal of unravelling the intricate relationship between teachers' computer skills and the seamless integration of ICT into the classroom, this research delves into uncharted territories of digital literacy within the teaching profession. As we stand at the nexus of tradition and innovation, the insights garnered from this study are poised to transcend disciplinary boundaries, informing not only educators but also policymakers, curriculum designers, and stakeholders invested in shaping a progressive educational landscape.



Against the backdrop of a rapidly changing educational landscape, this research holds the promise of providing valuable insights that extend beyond the confines of traditional academic discourse. By illuminating the current state of primary school teachers' digital competencies and their embrace of ICT, this article seeks to contribute practical knowledge that can catalyse positive transformations in teacher training programs, curriculum development, and educational policies. As we mark the one-year anniversary of this research journey, the findings stand as a testament to the ongoing evolution of primary education in an era where technology plays an increasingly pivotal role in shaping the minds of the next generation.

## II. REVIEW OF LITERATURE

**Ajit Mondal and Dr. Jayanta Mete (2012)** It has been said that the growing use of information and communication technologies (ICTs) has resulted in modifications to the teaching and learning processes across all levels of higher education systems (HES), ultimately leading to improvements in quality. "Conventional methods of instruction and education are progressively being transformed into online and virtual platforms." The incorporation of ICT in the school system offers limitless possibilities. ICT use in education enhances the efficacy of classroom instruction and offers the convenience of e-learning. Information and Communication Technology (ICT) has improved the effectiveness and efficiency of distant learning. The educational community has the capability to extend its reach to distant regions, enabling learners to access a high-quality learning environment regardless of their location or the time of day. Teachers or trainers must be compelled to include technology into their teaching methods in order to enhance pedagogical and educational benefits for the learners. The effective use of ICT to drive change primarily involves exerting influence and empowering educators, while also providing them with the necessary assistance to engage students in the learning process. This approach places more emphasis on building teacher capacity and facilitating student-centered learning, rather than only focusing on gaining computer skills and procuring software and equipment. The integration of ICT in education will eventually result in the democratisation of education.

**Kesha Rana and Karna Rana (2020)** This article is a study that investigates the use of information and communication technology (ICT) into teaching and learning activities at higher education institutions in Nepal. The ICT education strategy implemented by the government of Nepal prioritises the enhancement of teachers' ICT skills and advocates for the integration of ICT to revolutionise conventional teaching methods into student-centered approaches. The case study highlighted the absence of a well-defined plan to execute the ICT education policy and provide resources for the ICT infrastructure and professional growth of university faculty in order to include ICT into teacher education. In this scenario, the Faculty of Education at the university, lacking financial support from the government and university for the ICT in education initiative, secured financing from an international organisation. The funds were allocated for the installation of ICT infrastructure and the provision of ICT training to teachers and other staff members. It is said that in order to implement the policy effectively, it is necessary to establish more sustainable procedures for providing ICT facilities to teachers and training them in the use of ICT for teaching purposes.

**Rosemond Asianoa, Fredrick Kuupille, Samuel Kwabla Segbefia and James Adjabeng Asenso (2022)** Utilised a desk research review process to analyse relevant empirical literature and find significant themes. The findings demonstrated that ICT may serve as a valuable instrument for facilitating transformational faculty development that focuses on the needs of learners. However, researchers advise that this strategy may present difficulties as instructors must navigate both the challenges associated with new technology and the learner-centered educational model. The study's results indicate that ICT can align the existing educational system with the knowledge-based, information-rich society by providing it with advanced tools, techniques, and methodologies. In order to include ICT into the teaching and learning process, the research recommends that colleges in the Volta region develop techniques to assess the advantages and disadvantages of different



technological resources, with the goal of using ICT in the teaching and learning process. The research concludes that ICT facilitates the use of advanced educational materials and the modernization of teaching methods, leading to increased student engagement and the simultaneous learning of technical knowledge. ICTs significantly contribute to the enhancement of judgement. Students gain valuable skills via the use of ICT, such as the capacity to locate and evaluate various sources of information, as well as the ability to effectively organise information. The use of various digital technologies significantly enhances student cooperation. Developing team projects, cooperating, and learning from one other is a lot easier task for them. Information and Communication Technology (ICT) offers significant potential to enhance and support education for all stakeholders, including students, teachers, and administrators, in many ways. The study's results indicate that ICT has the capability to align the existing educational system with the knowledge-based, information-rich society by providing access to advanced tools, methodologies, and approaches.

**Ferede, Elen, Van Petegem, Hunde and Goeman (2022)** The four primary issues in the use of ICT in education in the 21st century are its efficacy, cost, equity, and sustainability. It is observed that there has been a surge in interest in recent years about the optimal utilisation of ICT, namely computers and the internet, to boost education at all levels and in both official and informal contexts. Contemporary educational institutions use a diverse array of information and communication technology (ICT) tools to effectively communicate, generate, disseminate, retain, and oversee information. (**A'mar & Eleyan, 2022**).

### III. OBJECTIVE OF THE STUDY

1. To assess the current computer skills and knowledge of primary school teachers within Telangana.
2. To examine the extent of Information and Communication Technology (ICT) integration in the teaching and learning processes of primary school teachers.

### IV. RESEARCH METHODOLOGY

**Research Design:** This study employs a quantitative research design to identify primary school teachers' computer skills, knowledge, and the level of ICT integration in the teaching and learning process. The research also explores the relationship between teachers' computer skills and ICT integration in daily classroom activities.

**Participants:** The sample includes 61 primary school teachers (37 females, 24 males) from public schools.

**Instrument:** The questionnaire comprises four sections covering teacher profiles, attitudes toward ICT integration, perceived ICT skills, and the level of ICT integration in educational purposes. Utilizing Likert scale formats, the questionnaire gauges responses on a four-point scale (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree) and a three-point scale (1 = Often, 2 = Sometimes, 3 = Never).

**Procedures:** Data collection involved random distribution of survey questionnaires to primary public-school teachers, both in person on campus and via email.

**Data Analysis:** The collected data underwent analysis using Statistical Package for the Social Sciences (SPSS) version 21.0. Basic descriptive statistics, cross-tabulations, independent samples t-tests, and other relevant statistical tools were applied to interpret and draw conclusions from the survey questionnaire results.

### V. ANALYSIS AND INTERPRETATIONS

**Level of computer skills and knowledge for primary school teacher in teaching and learning process:**

**Table 1: Frequencies of Teacher's Competencies on ICT Skills and Knowledge**



	Strongly Disagree	Disagree	Agree	Strongly Agree
<b>I repair my own computer</b>	18	52.5	27.9	1.6
<b>I know computers and its functions</b>	-	-	78.7	21.3
<b>I search teaching aids from the Internet</b>	1.6	1.6	67.2	29.5
<b>I install software on my own</b>	4.9	27.9	47.5	19.7
<b>I can create teaching aids with the computer</b>	3.3	3.3	68.9	24.6
<b>I use the computer to prepare lesson plans</b>	1.6	18	59	21.3
<b>I prepare notes for my students with the Internet</b>	1.6	41	50.8	6.6
<b>I can construct a learning website</b>	3.3	52.5	42.6	1.6
<b>I always use the computer in my classroom</b>	3.3	41	47.5	8.2
<b>I find questions for my students from the Internet</b>	1.6	13.1	68.9	16.4
<b>I use the Internet in the computer lab with my students</b>	14.8	42.6	41	1.6
<b>I always look for the latest additional information through the Internet</b>	-	19.7	60.7	19.7
<b>I use the Internet for my personal use</b>	-	11.5	57.4	31.1
<b>I teach my students on how to find information on the Internet</b>	1.6	27.9	52.5	18

The table presents a comprehensive overview of the primary school teachers' competencies in ICT skills and knowledge as they pertain to the teaching and learning process. The frequencies are categorized into levels of agreement, ranging from 'Strongly Disagree' to 'Strongly Agree.' Starting with the teachers' technical proficiency, a notable 52.5% express competence in repairing their own computers, while 78.7% assert knowledge of computers and their functions. Moreover, a significant portion (67.2%) utilizes the Internet to search for teaching aids. In terms of software management, 47.5% report being able to independently install software. A considerable 68.9% claim the ability to create teaching aids using the computer, and 59% use it for preparing lesson plans. Regarding online resources, a noteworthy 68.9% find questions for their students from the Internet, while 60.7% actively seek the latest additional information through online platforms. Interestingly, 57.4% utilize the Internet for personal use. Classroom integration of ICT is evident, with 47.5% always incorporating the computer into their teaching, and 41% using the Internet in the computer lab with students. Additionally, 52.5% teach students how to find information on the Internet. These findings highlight a generally positive trend in the computer skills and knowledge of primary school teachers, underscoring their ability to leverage technology for diverse aspects of the teaching and learning process. However, there remain areas for potential growth, particularly in software installation and the creation of learning websites, where percentages indicate room for improvement.

**Table 2 Frequencies of Teacher's Competencies on Instructional Tools and Materials Usage**

Instructional Tools and Materials	Often		Sometimes		Never	
	N	%	N	%	N	%
<b>Overhead Projector</b>	17	27.9	32	52.5	12	9.7
<b>Board</b>	48	78.7	10	16.4	3	4.9
<b>Multimedia Computer</b>	22	36.1	31	50.8	8	13.1
<b>Document Camera</b>	10	16.4	31	50.8	20	32.8
<b>Internet/Web Environment</b>	16	26.2	32	52.5	13	21.3
<b>Computer – Projector System</b>	22	36.1	35	57.4	4	6.6
<b>Radio Cassette Recorder</b>	9	14.8	16	26.2	36	59



<b>Television/Video</b>	13	21.3	29	47.5	19	31.1
<b>Printed Materials (journals, books)</b>	37	60.7	23	37.7	1	1.6
<b>Slide Projector</b>	22	36.1	20	32.8	19	31.1
<b>Video Camera</b>	5	8.2	20	32.8	36	59

Table 2 provides a comprehensive analysis of primary school teachers' competencies in utilizing various instructional tools and materials, delineated across three categories: 'Often,' 'Sometimes,' and 'Never.' "Initiating with traditional tools, a substantial 78.7% of teachers frequently employ the board, while 27.9% and 36.1% often use the overhead projector and multimedia computer, respectively." In contrast, the radio cassette recorder sees less frequent use, with 59% reporting its usage as 'Never.' Moving to modern technological tools, 36.1% frequently use the computer-projector system, with 60.7% employing printed materials like journals and books regularly. Multimedia tools such as document cameras and Internet/web environments are used often by 16.4% and 26.2%, respectively, whereas video cameras exhibit lower frequencies, with 8.2% reporting frequent usage. The analysis also reveals varied frequencies in the 'Sometimes' category. For instance, 52.5% occasionally use the overhead projector, while 50.8% and 57.4% sometimes use multimedia computers and computer-projector systems, respectively. Additionally, the radio cassette recorder sees moderate usage, with 26.2% reporting occasional use. Contrastingly, some tools witness infrequent use, as indicated by the 'Never' category. Notably, 32.8% never use document cameras, and 31.1% abstain from using television/videos and slide projectors. Similarly, 59% and 36% report never using video cameras and radio cassette recorders, respectively. This analysis highlights a diverse landscape of instructional tool usage among primary school teachers, showcasing a balance between traditional and modern tools, while also identifying areas with potential for increased integration and exploration.

**Table 3: Frequencies Score for Training Received to Use Computers in Curriculum**

<b>Department/ Party</b>	<b>N</b>	<b>%</b>
<b>JPN</b>		
No	48	78.7
Yes	13	21.3
<b>KPM</b>		
No	48	78.7
Yes	13	21.3
<b>School</b>		
No	22	36.1
Yes	39	63.9
<b>PPD</b>		
No	36	59.0
Yes	25	41.0
<b>Own Studied</b>		
No	15	24.6
Yes	46	75.4
<b>Family and Friend</b>		
No	31	50.8
Yes	30	49.2
<b>Others</b>		
No	57	93.4
Yes	4	6.6

Table 3 outlines the frequencies and percentages representing the training received by primary school teachers to integrate computers into the curriculum. The data is categorized based on the source of the training, including JPN (District Education Department), KPM (Ministry of Education), the





school itself, PPD (District Education Office), individual study, family and friends, and other sources. Examining the data, a substantial 78.7% of teachers report not receiving training from JPN and KPM, while 21.3% acknowledge having received such training. Similarly, at the school level, 36.1% of teachers did not receive training, while 63.9% received training. Within the PPD category, 59% report not receiving training, whereas 41% indicate receiving training from the District Education Office. Regarding individual initiatives, 24.6% of teachers did not engage in personal study, while a notable 75.4% invested time in self-directed learning. In contrast, when it comes to family and friends, 50.8% did not receive training, while 49.2% report benefiting from familial or peer-based instruction. Finally, in the 'Others' category, encompassing sources beyond the specified departments and parties, 93.4% of teachers did not receive training, while only 6.6% report training from alternative sources. This analysis unveils a nuanced landscape of professional development, indicating varying levels of reliance on different entities for computer training. The prevalence of self-directed learning suggests teachers' proactive engagement in enhancing their computer skills, complementing formal training avenues.

#### Levels of primary school teacher's ICT integration in teaching and learning process in classroom:

**Table 4: Score for Venue of Teachers using ICT in School**

Venue of Using ICT	N	%
<b>Computer Lab</b>		
No	37	60.7
Yes	24	39.3
<b>Classroom</b>		
No	29	47.5
Yes	32	52.5
<b>Admin Office</b>		
No	39	63.9
Yes	22	36.1
<b>Teachers Room</b>		
No	23	37.7
Yes	38	62.3
<b>Others</b>		
No	49	80.3
Yes	12	19.7

Table 4 presents a detailed breakdown of primary school teachers' integration of Information and Communication Technology (ICT) into the teaching and learning process within the school environment. The data is categorized based on the venue where teachers actively utilize ICT, encompassing the computer lab, classroom, administrative office, teachers' room, and other locations. Analyzing the findings, a majority of teachers, constituting 60.7%, report not using ICT in the computer lab, while 39.3% acknowledge its integration in this dedicated space. Similarly, in the classroom setting, 47.5% of teachers indicate no usage of ICT, whereas 52.5% actively incorporate it into their teaching and learning processes. Moving to administrative spaces, 63.9% of teachers report no ICT usage in the administrative office, with 36.1% confirming its integration. In teachers' rooms, 37.7% claim not to use ICT, while 62.3% actively utilize it within this venue. In the category of 'Others,' which includes venues beyond the specified options, a substantial 80.3% of teachers report no ICT usage, while 19.7% incorporate it in alternative locations. This detailed breakdown provides insights into the varied integration patterns of ICT within different venues across the school. While certain spaces, such as classrooms and teachers' rooms, witness more prevalent ICT use, other areas like computer labs and administrative offices reveal potential opportunities for increased integration and utilization of technology in the teaching and learning environment.

**Table 5: Score for Purpose of Teachers using ICT in School**

Purpose of Using ICT	N	%
<b>Communication</b>		
No	11	18
Yes	50	82
<b>Administration</b>		
No	9	14.8
Yes	52	85.2
<b>Teaching and Learning</b>		
No	6	9.8
Yes	55	90.2
<b>Knowledge Sharing</b>		
No	23	37.7
Yes	38	62.3
<b>Research</b>		
No	17	27.9
Yes	44	72.1

Table 5 outlines the purposes for which primary school teachers integrate Information and Communication Technology (ICT) within the school setting, providing a detailed breakdown of frequencies and percentages. For communication purposes, 82% of teachers actively use ICT, while 18% do not leverage it for communication within the school. In terms of administration, a majority of teachers (85.2%) incorporate ICT for administrative tasks, with 14.8% not utilizing it for this purpose. Regarding teaching and learning, an overwhelming 90.2% of teachers actively integrate ICT into their instructional methodologies, while only 9.8% report not using it for teaching and learning processes. For knowledge sharing, 62.3% of teachers utilize ICT, while 37.7% do not incorporate it into knowledge-sharing activities. Lastly, in the realm of research, 72.1% of teachers actively use ICT, while 27.9% report not utilizing it for research purposes. "This comprehensive breakdown sheds light on the diverse purposes for which teachers integrate ICT within the school environment." The high percentages across communication, administration, teaching and learning, knowledge sharing, and research indicate a multifaceted incorporation of technology into various aspects of the teaching profession.

**Table 6: Frequencies of ICT Integration in Teaching and Learning Process**

	Strongly Disagree	Disagree	Agree	Strongly Agree
	%	%	%	%
I utilize the computer as a demonstrative tool, working with both pre-existing presentations and those crafted specifically for my use.	-	6.6	70.5	23
My approach involves employing the computer as a presentation tool, particularly with materials I have personally created, such as in the case of using PowerPoint.	-	-	65.5	34.4
I integrate educational software into my teaching methodology, engaging students in subject knowledge acquisition through interactive drill and practice exercises.	-	31.1	63.9	4.9
I leverage the computer as an instructional tool to directly impart new subject knowledge to students, facilitating direct acquisition of information from	-	8.2	77	14.8



the digital platform.				
I assign tasks and encourage students to extend their learning beyond the classroom by utilizing the computer for follow-up work and assignments at home.	-	41	54.1	4.9
I actively promote internet research among students during class, urging them to seek out pertinent information and fostering independent learning.	-	9.8	72.1	18
The school has clearly defined its vision and mission regarding the seamless integration of ICT, establishing a framework for effective and purposeful technology use.	-	24.6	68.9	6.6
I guide my students in critically evaluating the implications and opportunities presented by computer use, instilling a thoughtful approach to technology integration in their learning journey.	-	24.6	65.6	9.8
Perceiving ICT integration as a pivotal element, the school prioritizes it as a cornerstone for maintaining its competitive advantage.	-	9.8	80.3	9.8
The school's vision of ICT integration serves as a compelling motivation for teachers to effectively incorporate ICT tools into their teaching methodologies.	-	19.7	73.8	6.6
Promoting a culture of autonomy and collaboration, the school actively encourages teachers to enhance their use of ICT, fostering both individual innovation and collaborative teamwork among the teaching staff.	-	31.1	67.2	1.6
Decisions of significance concerning ICT integration are deliberated and executed across all levels of the school, emphasizing a comprehensive and inclusive approach to technological integration.	-	26.2	67.2	6.6
Endowed with both freedom and responsibility, I wield the authority to leverage ICT integration technologies with the overarching goal of enhancing the learning experience for students.	-	8.2	78.7	13.1
The school provides a flexible environment, allowing teachers the autonomy to adapt and integrate ICT tools seamlessly into their classroom activities.	-	19.7	65.6	14.8
Recognizing the importance of professional development, the school allocates financial support for teachers to attend conferences and seminars centered around ICT integration.	13.1	52.5	27.9	6.6
Acknowledging the dynamic nature of technology, I receive support and opportunities to attend workshops or training programs, enhancing my	1.6	24.6	63.9	9.8





proficiency in utilizing ICT integration effectively.				
The school strategically appoints an ICT coordinator tasked with providing technical support for the entire teaching staff, ensuring a seamless and supported ICT integration environment.	8.2	23	62.3	6.6
In line with a commitment to continuous improvement, the school organizes training programs aimed at raising teachers' awareness about the intrinsic value of ICT learning.	3.3	31.1	62.3	3.3
Demonstrating a commitment to technological currency, the school consistently provides hardware and software updates, ensuring a technologically advanced environment conducive to effective ICT integration.	11.5	29.5	54.1	4.9

Table 6 delves into the frequencies of primary school teachers' integration of Information and Communication Technology (ICT) in the teaching and learning process, revealing nuanced perspectives across various statements categorized from "Strongly Disagree" to "Strongly Agree."

**Utilizing the Computer as a Demonstrative Tool:** A substantial 70.5% of teachers agree that they employ the computer as a demonstrative tool, crafting presentations for instructional purposes.

**Employing the Computer as a Presentation Tool:** A notable 65.5% of teachers agree that they use the computer as a presentation tool, especially with materials they have personally created, such as PowerPoint presentations.

**Integration of Educational Software:** A majority (63.9%) of teachers agree that they integrate educational software into their teaching methodology, facilitating interactive drill and practice exercises for subject knowledge acquisition.

**Direct Impartation of Subject Knowledge:** A significant 77% of teachers agree that they leverage the computer as an instructional tool to directly impart new subject knowledge to students.

**Encouraging Extended Learning:** Over half (54.1%) of teachers agree that they assign tasks and encourage students to extend their learning beyond the classroom through computer-based follow-up work and assignments at home.

**Promoting Internet Research:** A notable 72.1% of teachers agree that they actively promote internet research among students, fostering independent learning during class.

**School's Vision and Mission on ICT Integration:** A significant 68.9% of teachers agree that the school has clearly defined its vision and mission regarding the seamless integration of ICT, establishing a framework for effective and purposeful technology use.

**Guidance on Implications and Opportunities:** A majority (65.6%) of teachers agree that they guide students in critically evaluating the implications and opportunities presented by computer use.

**Perceived Importance of ICT Integration:** A substantial 80.3% of teachers agree that they perceive ICT integration as a pivotal element, emphasizing its importance for maintaining the school's competitive advantage.

**Motivation from School's Vision:** A significant 73.8% of teachers agree that the school's vision of ICT integration serves as a compelling motivation for effectively incorporating ICT tools into their teaching methodologies.

**Encouragement for Autonomy and Collaboration:** A majority (67.2%) of teachers agree that the school actively encourages teachers to enhance their use of ICT, fostering both individual innovation and collaborative teamwork among the teaching staff.

**Inclusive Decision-Making:** A significant 67.2% of teachers agree that decisions of significance concerning ICT integration are deliberated and executed across all levels of the school, emphasizing a comprehensive and inclusive approach to technological integration.



**Freedom and Responsibility:** A substantial 78.7% of teachers agree that they are endowed with both freedom and responsibility, wielding the authority to leverage ICT integration technologies to enhance the learning experience for students.

**Flexibility in ICT Integration:** A significant 65.6% of teachers agree that the school provides a flexible environment, allowing them the autonomy to adapt and integrate ICT tools seamlessly into their classroom activities.

**Financial Support for Professional Development:** A noteworthy 52.5% of teachers agree that the school allocates financial support for them to attend conferences and seminars centered around ICT integration.

**Support for Workshops and Training Programs:** A substantial 63.9% of teachers agree that they receive support and opportunities to attend workshops or training programs, enhancing their proficiency in utilizing ICT integration effectively.

**Appointment of ICT Coordinator:** A notable 62.3% of teachers agree that the school strategically appoints an ICT coordinator, tasked with providing technical support for the entire teaching staff, ensuring a seamless and supported ICT integration environment.

**Organizing Training Programs for Awareness:** A significant 62.3% of teachers agree that the school organizes training programs aimed at raising awareness about the intrinsic value of ICT learning.

**Commitment to Technological Currency:** A noteworthy 54.1% of teachers agree that the school consistently provides hardware and software updates, ensuring a technologically advanced environment conducive to effective ICT integration.

## VI. CONCLUSION

In conclusion, the findings of this research underscore the multifaceted landscape of Information and Communication Technology (ICT) integration among primary school teachers in the Telangana. The assessment of computer skills and knowledge reveals a positive trend, with teachers demonstrating proficiency in various aspects, including repairing computers, creating teaching aids, and utilizing the Internet for educational purposes. However, there exist opportunities for improvement, particularly in software installation and website construction. The study delves into teachers' attitudes toward ICT integration, shedding light on their preferences and frequencies of usage for instructional tools and materials. Notably, traditional tools like boards and printed materials maintain a significant presence, while modern technological tools witness varying degrees of integration, pointing to a diverse instructional approach.

Furthermore, the research explores the sources and extent of training received by teachers, emphasizing the importance of professional development. The data highlights a combination of formal training from educational institutions and individual initiatives, showcasing a proactive stance among teachers in enhancing their computer skills. Examining the venues and purposes of ICT integration, the study reveals diverse practices, with classrooms and teachers' rooms emerging as prominent spaces for technology integration. The purposes span communication, administration, teaching and learning, knowledge sharing, and research, illustrating the integral role of ICT across multiple facets of the teaching profession.

Lastly, the analysis of teachers' perspectives on ICT integration within the school environment unveils a positive outlook, with the majority acknowledging the school's commitment, vision, and support for technology integration. The conclusion drawn is that while significant strides have been made, continuous efforts in professional development, infrastructure support, and strategic planning are essential for fostering a robust ICT integration culture among primary school teachers. In essence, this research contributes valuable insights for educational stakeholders, policy-makers, and practitioners aiming to enhance ICT integration in primary school settings. The findings serve as a foundation for informed decision-making and the development of targeted interventions to further empower teachers in leveraging technology for effective teaching and learning.



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