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Exploring the Use of ICT Tools in Formative and Summative Assessment Practices in Afghan Primary Schools

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ABSTRACT
This research examines the application of information and communication technology (ICT) in formative and summative assessment methodologies within Afghan primary schools. Utilizing a convergent mixed-methods methodology, the study integrated quantitative data from 40 teacher surveys with qualitative insights from four semi-structured interviews conducted in public and private schools in Kabul and Badakhshan provinces. The results reveal significant disparities in how public and private schools use and access ICT. Private school instructors said they used tools like WhatsApp and Google Forms more often because their schools had better infrastructure. On the other hand, many public-school teachers didn't have access to even the most basic digital tools because of problems, including unstable energy, slow internet connections, and a lack of institutional support. Even with these problems, most instructors, no matter what kind of school they worked at, said they were hopeful that ICT might make assessments more accurate, efficient, and interesting for students. The report underscores the pressing necessity for focused interventions, encompassing professional development, infrastructural investment, and localized digital content. It gives policymakers, educational leaders, and NGOs evidence-based suggestions on how to make ICT-supported assessment procedures more accessible to all students in Afghan primary schools.
keywords: ICT in Education, Formative and Summative Assessment, Afghan Primary Schools, Mixed-Methods Research, Teacher Perceptions, Educational Technology

1. Introduction

As part of the push for worldwide educational reform, it has become more important than ever to use ICT in teaching and testing. ICT tools have been acknowledged as essential for improving educational access, interactivity, and quality, especially in developing and post-conflict nations. In Afghanistan, where long-term instability has made it hard for students to go to school and teachers to do their jobs, ICT is a great way to change the way we teach and test students. Most of the time, past efforts have been on how ICT can be used in the classroom. There has not been as much focus on how digital tools can help with evaluation, which is an important part of the learning process.

Testing is a key part of improving learning outcomes. Formative assessment helps teachers figure out what their students need to learn right away, while summative assessment gives teachers a way to measure their students' progress. In Afghanistan, where big class sizes, lack of resources, and inconsistent teacher preparation are always problems, making assessment methods better is a national educational priority. Effective assessment, especially when backed

by ICT, can directly improve the quality of primary education by allowing for fast feedback, facilitating differentiated instruction, and increasing accountability. The Ministry of Education and international partners have increasingly recognized the significance of evaluation in national strategic planning; yet, its implementation continues to be restricted in breadth and scale.

This study examines the contemporary utilization of ICT tools in formative and summative assessments by primary school teachers in Afghanistan. It concentrates on both public and private primary schools in the Kabul and Badakhshan provinces to elucidate regional and institutional disparities. The research employs a mixed-methods methodology to investigate the types of ICT tools utilized, their frequency and context of use, and teachers' judgments of their usefulness. This analysis enhances the comprehension of how digital assessment techniques might be facilitated and broadened within Afghanistan's primary education system.

To achieve these objectives, the study addresses the following inquiries:

- What ICT tools are utilized in Afghan elementary schools for both formative and summative assessments?
- How do primary school teachers perceive the effectiveness of ICT tools in assessment?
- What challenges do Afghan primary schools face in the implementation of ICT tools for assessment?

2. Literature Review

The use of ICT tools in educational assessment has changed the way teachers and students learn and teach all across the world by making it easier to come up with new ways to measure student progress. In countries with a lot of digital knowledge and money, Kahoot, Quizizz, and Google Forms are often used for both formative and summative evaluations. These tools make tailored instruction and prompt intervention easier by giving teachers interactive interfaces, real-time feedback, automated scoring, and data visualization dashboards. Their easy-to-use design lets teachers make a wide range of question kinds, give tests from a distance, and see how students are doing right away. When used correctly, they not only get students more involved but also make it easier for teachers to provide each student feedback and ask questions that are appropriate for their level of understanding. Learning Management Systems (LMS) like Edmodo, Canvas, and Moodle make these features even better by combining testing with content delivery, communication tools, and learning analytics. This creates a complete digital learning environment (UNESCO, 2023; Kay & Leung, 2020).

Multimedia-based assessment tools have changed the way teachers teach even more. (Kay & Leung 2020) say that platforms augmented with interactive question formats, video prompts, and visual aids cultivate deeper cognitive engagement and elevate students' critical thinking skills. These tools also have several ways for students to get feedback, such as audio explanations and video comments, which help them understand and remember what they learned. UNESCO IIEP (n.d.) groups ICT assessment tools by their main purpose, separating those that are mostly used for testing from those that are mostly used for teaching. This classification highlights the importance of ensuring that the choice of tools is in line with the learning goals. The World Bank (2005) also says that these tools only work well in low- and middle-income countries if teachers are digitally literate, there is enough infrastructure, and schools are ready to use them. The availability of tools alone does not ensure meaningful integration, despite technological potential, without strong pedagogical alignment and training.

ICT has a big impact on summative assessments, which look at all the learning that has happened throughout instruction. Educators may provide high-stakes tests safely and quickly by using digital assessment platforms like Exam.net, Testmoz, and Respondus LockDown Browser. These technologies help keep track of time, proctor exams from afar, and check for plagiarism automatically. This makes things easier for administrators and ensures that the exams are fair. The World Bank (2023) says that these technologies not only speed up feedback, but they also help shape policy by gathering assessment data from many schools or areas. They also help with real-time scoring and analytics. These technologies are changing the way we judge things in digitally enabled settings, but their use in developing countries is often limited by problems with infrastructure and worries about fair access.

2.1. ICT in Low-Income and Conflict-Affected Settings

It is very important to use ICT in educational assessments, but it is also quite difficult to do so in fragile, low-income, and conflict-affected areas like Sub-Saharan Africa, South Asia, and some parts of the Middle East. These places often have problems with their infrastructure, such as not having enough access to digital devices, restricted internet coverage, and utilities that don't work. As a result, it is often not possible to use regular digital tools on a broad scale. The World Bank (2005) suggests using low-tech, scalable options, including solar-powered tablets, SMS-based tests, and USB-distributed content, in places where there is no internet or limited bandwidth. These solutions are necessary to make sure that populations without traditional ICT infrastructure have fair assessments.

Many countries show good examples of how to adapt ICT to local needs. In Kenya and Uganda, education ministries worked with NGOs to send preloaded tablets with assessment content to rural schools. This program lets students learn and take tests online even if they don't have internet access. The DIKSHA platform in India greatly increases the reach of marginalized groups by offering assessments that are in line with the curriculum using mobile apps in local languages (UNESCO, 2023; EdTech Hub, 2021). These models show how hybrid techniques can help close the gap between different types of technology by combining digital feedback, instructor interfaces, and paper-based testing. UNESCO IIEP (n.d.) says that just putting in hardware isn't enough; for things to work, teachers need to be trained, the content needs to be localized, there needs to be administrative support, and the community needs to be involved.

Also, ICT technologies are quite important for making sure that everyone can learn in these places. They have personalized interfaces, the ability to magnify screens, and the ability to read material aloud to help students with disabilities. The (UNESCO GEM, 2023) says that tests that are open to everyone and use technology can help close the gap in learning and get more people involved. However, the research also says that digital tests could make current inequities worse by giving pupils in better-resourced settings an advantage if there isn't enough training and investment in infrastructure. (UNICEF, 2023)

In traditional and patriarchal nations, the digital gender difference remains a substantial barrier to the integration of ICT into educational assessment. In Afghanistan and other places where there is conflict, female teachers and students have many more problems. These include societal standards that make it hard for women to use technology, limited mobility, and limited access to digital gadgets. (LIRNEasia, 2010) and (UNICEF, 2023) say that female teachers often don't have access to institutional assistance for digital training, reliable internet, or personal gadgets. These limitations hinder their involvement in ICT-based evaluations and reduce their ability to offer pupils equitable learning experiences.

In rural and culturally conservative provinces, women are often barred from co-ed ICT training sessions, public mobile device usage, or digital literacy seminars due to prevailing social and

cultural conventions. These restrictions hinder their confidence and competence in utilizing digital tools for assessment. Moreover, the lack of tailored initiatives that address the specific needs of female educators is further intensified by policy deficiencies. For instance, many professional development programs don't look into community-based models or flexible scheduling, which might make ICT training more available to women (Rahimi, 2022).

These differences between genders have a ripple effect on students. Female teachers, especially in primary schools, are role models and help make learning more inclusive. Female students are less likely to encounter ICT-based examinations or to cultivate digital literacy abilities due to their exclusion from digital training. To fix this problem, we need to establish policies that are gender-sensitive and cover a lot of ground. These might include funding, safe access to gadgets, and training programs led by women World Bank (2023).

Teachers' beliefs, attitudes, and perceptions have a big effect on whether or not ICT works in educational evaluation. Skepticism or fear of technology can slow down even well-funded projects, whereas positive views might speed up adoption. (Kay & Leung, 2020) found that teachers who often use interactive assessment technologies like Quizizz or Google Forms said that their students are more engaged, their feedback is more useful, and their classrooms are easier to manage. These tools are great for formative assessment since they are easy to use and can be changed to fit different needs.

However, when teachers switch to summative evaluations, they often worry about cheating, technical problems, and whether the tests will meet national exam requirements. Teachers in both developed and developing contexts remain reluctant to utilize ICT for high-stakes exams, favoring traditional paper formats due to their perceived reliability, as noted by (Wang & Heffernan, 2021) and (Howard et al. 2021). In places with few resources, these worries are made worse by bad internet connectivity, old equipment, and a lack of digital strategy that fits with national evaluation frameworks.

Teacher preparation depends on their training, the culture of the school where they work, and their personality traits. (Ertmer et al. 2012) showed that educators who embrace constructivist pedagogies are more likely to experiment with digital tools, viewing technology as a means to enhance student-centered, active learning methodologies. Conversely, educators with traditional, lecture-centric educational backgrounds may perceive ICT as unnecessary or disruptive. (Ali et al. 2020) found that ICT use was limited in rural Pakistan, even though there was digital infrastructure, because teachers didn't have enough training in how to use it. For sustainable implementation to work, teachers need to keep learning, especially through programs that combine ICT with subject-specific teaching methods.

Institutional support is also necessary. (Tondeur et al. 2018) assert that educational institutions should foster a culture of innovation through the promotion of administrative support, collaborative efforts among peers, and the dissemination of success narratives. Teachers are more likely to use new technology when they see real benefits, get praise, and feel like they belong to a learning community. Teacher networks and mentorship initiatives can replace formal training in places with few resources and help close digital knowledge gaps.

2.2. Afghanistan's Policy Issues and New Ideas

Afghanistan's ICT for education policies is both ambitious and hard to put into action. The third Afghanistan National Education Strategic Plan (NESP III, 2017–2021) put digital transformation at the top of its list of ways to improve the quality and availability of education (Ministry of Education, 2017). The plan laid out ways to use ICT in administration, teaching, and testing. However, political instability, problems with governance, and a reliance on donors

have made it much harder to put programs into action, especially after the regime change in 2021. Afghanistan does not have a unified national framework for ICT-enabled assessment, even if it wants to.

(UNESCO, 2022) and the World Bank (2023) have both promised to help Afghanistan's displaced and disenfranchised students with emergency education that uses technology. Dars-e-Afghan, a televised education program, and UNICEF's Learning Passport, a digital learning platform that isn't being used, are two instances of how low-tech solutions can fill in the gaps in assessments when schools aren't available. These platforms have interactive content, tests, and ways for students to get feedback that are specifically made to fit the Afghan curriculum and the country's many languages.

But these efforts are still mostly driven by donors and not well-coordinated. (Rahimi, 2022) says that less than one-fourth of Afghan primary school teachers possessed the tools they needed to use digital assessment in the classroom, and even fewer had gotten training in ICT. There are big differences between rural and urban places. Teachers in remote districts don't even have the most basic teaching tools, whereas private institutions in Kabul and other big cities are trying out Google Forms and WhatsApp-based tests. (UNICEF, 2023) says that rural students have only 12% of the digital learning tools that urban students have, whereas urban students have 45% of the same tools.

Afghanistan's poor infrastructure makes it challenging to use ICT. For example, there are frequent power outages, slow internet, and not enough digital technology. Cultural reluctance, especially when it comes to educating girls, is another problem that makes things much harder. In many provinces, girls are not allowed to use digital gadgets or take ICT-based classes. This makes even the best-planned programs less effective and shows how important it is to have solutions that are tailored to the area and the culture.

But new grassroots projects show promise. Community digital centers that run on solar power, mobile-friendly platforms that have Dari/Pashto content, and teacher-led WhatsApp groups for tests are all examples of how technology may be used in fragile settings. These models provide significant insights into the scalability of ICT tools through the adoption of suitable policy alignment, sustained investment, and community involvement (UNESCO, 2023; World Bank, 2021).

2.3. Theoretical Viewpoints and Comparative Insights

Afghanistan may learn a lot from the experiences of other low-resource areas that have been devastated by war. (Munyengabe et al. 2017) found that teachers in Rwanda were more likely to use ICT when they thought the tools were useful and fit with their teaching goals. (Altankhuyag, 2018) discovered that affirmative teacher perceptions correlated with heightened utilization of digital assessments in Mongolia, especially within institutions characterized by inadequate infrastructure. In Bangladesh and Uganda, community-driven initiatives employing solar-powered tablets and WhatsApp were executed to maintain the continuation of assessments amid school closures, especially for remote learners.

The Technology Acceptance Model (TAM) provides a theoretical framework for understanding these trends. TAM says that the main things that affect whether or not people use a new technology are how useful and easy it is to use. In educational settings, this means that teachers are more likely to use ICT tools when they think these tools improve lessons, save time, and are easy to add to their daily routines (Davis, 1989). These perceptions are influenced by elements including infrastructure, peer influence, and institutional support. The application

of TAM to Afghanistan illustrates the imperative for a conducive policy framework, favorable exposure, and readily available, low-complexity tools.

TPACK (Technological Pedagogical Content Knowledge) is another useful approach that focuses on the combination of content, pedagogical, and technological knowledge that is needed to use ICT well. Generic technical workshops are less likely to be effective compared to teacher training that enhances TPACK competencies, especially through subject-specific, culturally responsive modules (Mishra & Koehler, 2006).

3. Methodology

This study utilized a convergent mixed-methods approach to investigate contemporary practices regarding the utilization of ICT resources for formative and summative assessment in Afghan elementary schools. The justification for employing mixed approaches is to obtain both the measurable trends of ICT utilization in schools and the comprehensive insights of educators confronting the issues of scarce resources, digital disparities, and pedagogical obstacles within the Afghan setting. The study seeks to furnish a more comprehensive and dependable narrative on the influence of available ICT resources on assessment in two provinces that are varied both geographically and institutionally by amalgamating quantitative and qualitative methodologies.

Data were gathered from educators in the Kabul and Badakhshan provinces, encompassing both state and private primary institutions. The two provinces were chosen on purpose to show how different it is to get to educational technologies. Kabul is more urbanized and has more resources, whereas Badakhshan gives us a view of a more remote and hilly area. For the qualitative part of the study, one public and one private school were chosen in each province. Teachers from different schools took part in the survey. A purposive sampling strategy was employed to choose educators with direct experience in classroom evaluation, enabling them to provide informed insights regarding their utilization—or lack thereof—of ICT technologies.

A structured survey was employed made in Google Forms to collect the quantitative data. The survey had both multiple-choice and Likert-scale items. The instrument was developed to collect information about the types of ICT tools instructors use (such WhatsApp, Google Forms, and Quizizz), how often they use them (daily, weekly, monthly, or never), and what teachers think about how well ICT helps with student assessment. The study also asked about things like province and school type, which made it possible to compare public and private schools and urban and rural areas. There were 40 teachers who filled out the survey.

The qualitative part of the study was based on semi-structured interviews with four teachers, one from each of the four school types and provinces: Kabul-public, Kabul-private, Badakhshan-public, and Badakhshan-private. These interviews were done in person or over the phone, depending on whether the teacher had an internet connection and was free. Interviews were conducted in Dari, recorded with the consent of participants, and subsequently transcribed and translated into English for analysis. The interview protocol aimed to investigate teachers' lived experiences with ICT, encompassing access to infrastructure (electricity, internet, devices), previous training experiences, assessment methods, perceptions of ICT's influence on student learning, and suggestions for enhancing ICT integration.

To protect the integrity of the study, all participants were told what it was about, that they may choose to take part, and that their answers would be kept private. Before any data was collected, the person gave their verbal consent. No personally identifiable information was documented or revealed.

Descriptive statistics, such as frequency counts and percentages, were used to look for patterns in ICT use across provinces and school types in the quantitative data. The results were sorted into main groups that matched the study questions and shown in tables and bar charts. The qualitative data underwent analysis via thematic analysis, employing an inductive coding methodology. We looked at the interview transcripts line by line to find patterns that kept coming up. Then we put these patterns into bigger themes, like "Access to ICT Infrastructure," "Frequency of Use," "Barriers and Challenges," and "Perceived Effectiveness of ICT in Assessment." This thematic structure made it easier to show how teachers felt and what they thought.

The quantitative and qualitative data sets were then combined during the interpretation step. To get a better picture of how ICT-based assessments work in Afghan schools, we looked for areas where they come together, go apart, or work together. This triangulation of data improved the findings' validity and reliability and allowed the study to answer the research questions in a more complete way.

In conclusion, the methodological approach was based on the necessity to comprehend both the quantifiable and qualitative aspects of ICT utilization in Afghan education. The integration of structured survey data and teacher narratives enabled the study to elucidate not only the tools utilized and their frequency of use but also the reasons for the preference of certain tools, the barriers that impede their usage, and the support teachers deem necessary for the more effective incorporation of technology in assessment.

3.1. Analysis of Data

The analysis integrated data from 40 teacher surveys and four comprehensive interviews conducted in Kabul and Badakhshan. The results reveal that ICT is used in evaluations in different ways. WhatsApp was the most popular tool, used by 20% of people. Google Forms was next, used by 10%, and Quizizz was last, used by 8%. But 23% said they didn't use any ICT tools. Private school teachers used them more often because they had better resources, whereas public schools faced challenges with infrastructure and training.

When it comes to how often they used ICT, 22.5% used it every day, 27.5% used it once a week, 25% used it once a month, and 25% never used it. Private school teachers were the ones who used it the most. The statistics suggest a strong correlation between infrastructure accessibility and ICT utilization.

When asked how valuable they thought ICT tools were, 70% said they were "very useful," 15% said they were "somewhat useful," and 15% said they weren't sure. Teachers who had been using ICT for longer were surer of its benefits.

The interview data further confirmed these findings, showing that there were big disparities in ICT availability and use between different types of schools. Teachers at private schools said they often utilized Google Forms and WhatsApp to give quizzes, collect homework, and give feedback. A teacher at a private school in Kabul said, "With WhatsApp, I can send short quizzes and get answers quickly. It helps me see who is getting better." On the other hand, teachers from public schools pointed out that there was no fundamental infrastructure. A teacher from a public school in Badakhshan said, "We don't even have a computer, and most of the time there isn't any power." How can we take advantage of technology? Even with these constraints, all of the teachers who were interviewed, even those who had never used ICT before, said they were very interested in learning how to utilize digital tools for assessment if they got training and assistance from their school. Their views show not only the problems that are now in place

but also the potential that hasn't been used yet and the willingness of teachers to use ICT-based assessment methods.

Key barriers included were unstable electricity, slow internet, not enough devices, not enough training, and, in some cases, cultural barriers, including gender-segregated access to ICT. Despite this, all of the teachers who were interviewed were hopeful about ICT's possibilities and asked for better infrastructure, content in Dari and Pashto that is more relevant to their students, and training that is more focused.

4. Findings and Discussion

The analysis of this study goes beyond identifying gaps between public and private schools; it also points toward several practical steps that different stakeholders can take to make ICT-supported assessment more effective, inclusive, and sustainable in Afghanistan. The practical implications can be viewed from the perspectives of teachers, policymakers, NGOs, or donor agencies, all of whom have an important role in addressing the barriers revealed by this research.

Teachers are the direct implementers of ICT-based assessment, and the findings suggest that many are open and willing to experiment with digital tools even when resources are scarce. This indicates that practical interventions for teachers should begin with tools that are simple, low-cost, and easy to use in everyday classroom practice. WhatsApp, which was already found to be used by private school teachers, can be extended more widely for formative purposes such as sharing short quizzes, gathering quick feedback, or monitoring homework completion. Teachers can also explore free platforms like Google Forms, which provide immediate data on student performance and reduce grading time.

In contexts where internet access is unreliable, teachers can adopt offline solutions. These include storing quizzes on USB drives, using basic mobile phones for SMS-based questioning, or applying interactive activities through laptops that do not require an internet connection. Moreover, teachers can create peer-learning networks through WhatsApp or Telegram to exchange strategies and resources. Such networks help overcome the lack of formal training by enabling teachers to learn from one another’s experiences. The study revealed that teachers are motivated to integrate ICT if they receive even minimal support, which means that professional development programs should prioritize practical demonstrations and hands-on activities rather than abstract theoretical approaches.

At the policy level, the findings underscore that ICT adoption cannot succeed without a strong infrastructural backbone. For Afghan policymakers, the first implication is the need to invest in reliable electricity and affordable internet access, especially in rural areas such as Badakhshan, where the digital divide is most visible. Solar energy systems and community internet hubs could be prioritized as short-term solutions for schools that remain off-grid.

Another implication is the recognition that teacher training is not a one-time activity. Policymakers should institutionalize continuous professional development programs that support teachers in integrating ICT into assessment. This could include school-based workshops, online mentoring platforms, and the establishment of resource centers where teachers can practice with digital tools.

Additionally, national education policies must ensure that ICT is localized. Assessment materials should be developed in Dari and Pashto and aligned with Afghanistan’s national curriculum so that teachers can apply them immediately in classrooms. By embedding ICT assessment frameworks within education reforms, policymakers can reduce the gap between

private and public schools and ensure that ICT tools are not seen as privileges for urban institutions but as essential resources for all schools across the country.

The role of NGOs and donor agencies is equally important because the study shows that external support often helps private schools advance more quickly in ICT integration. NGOs can extend these benefits to public schools by piloting scalable and low-cost ICT initiatives that respond to Afghanistan's unique challenges. For example, they could develop offline mobile applications that allow teachers to create assessments without internet connectivity, or SMS-based assessment systems that work on basic phones, which are widely available even in rural households.

NGOs can also invest in solar-powered digital centers for rural schools, ensuring consistent access to ICT even in areas without electricity. Beyond technology, NGOs should prioritize capacity-building by offering gender-sensitive teacher training. The cultural barriers identified in this study, such as gender segregation in ICT classrooms, highlight the need for training models that create safe spaces for female teachers to participate fully. Mentorship programs led by experienced female educators could also help inspire confidence and reduce barriers for women who want to adopt ICT in their teaching practice.

Donor agencies should also focus on supporting localized innovation rather than importing one-size-fits-all solutions. For example, developing Dari and Pashto digital tools or assessment systems that align with Afghanistan's specific curriculum and socio-cultural context will increase adoption and sustainability.

The overall implication of this study is that ICT-supported assessment in Afghanistan will only succeed through a coordinated and multi-level approach. Teachers can make small but meaningful steps by integrating low-cost ICT tools into classroom practice. Policymakers must provide the necessary infrastructure, policies, and continuous training to ensure sustainable change. NGOs and donors can complement these efforts with innovative solutions and targeted programs that reduce gender disparities and bridge rural–urban divides.

If all three groups act in alignment, Afghanistan can transition from the current fragmented and unequal adoption of ICT into a system where digital assessment is a normal, equitable, and sustainable part of primary education. This would not only improve assessment quality but also ensure that Afghan children are not left behind in the global move toward digital education.

5. Conclusion and Recommendations

This study examined the utilization of ICT tools in formative and summative assessment processes within Afghan elementary schools, concentrating on both public and private institutions in the Kabul and Badakhshan regions. The research, employing a convergent mixed-methods methodology, uncovered substantial inequalities in ICT access, usage frequency, and teacher training across different school types and geographies.

The results indicated that ICT technologies like WhatsApp, Google Forms, and Quizizz are utilized in certain schools, especially private institutions with superior infrastructure. But many teachers in public schools said they had little or no access to ICT tools for testing. Even with these problems, teachers from both public and private schools strongly believed that ICT might make assessments more effective, faster, and more interesting for students.

This study's main finding is that instructors need more than just access to ICT; they also need training, support, and digital information that is relevant to their students' needs in order to use ICT in a meaningful way in their assessments. Tools are often not used enough because people

don't know how to use them, don't have enough time, or face institutional impediments like unreliable electricity or gender-based restrictions in ICT schools.

The study demonstrates that private schools are more inclined to innovate in ICT-based evaluation, frequently bolstered by internal incentives or external organizations. At the same time, public schools still don't have enough resources, not because they want to, but because of bigger problems with legislative inertia and resource disparity.

5.1. Based on These Results, We Suggest the Following

Improve infrastructure, particularly in underserved regions: Make sure that all schools have reliable energy and internet access, especially in rural and underprivileged areas.

Give Schools the Right Tools: Give schools the computers, projectors, tablets, and printers they need to support digital assessment procedures.

Teacher Training: Set up ongoing professional development programs that teach teachers how to use ICT in assessments, including both technical skills and teaching methods.

Localized Content: Create digital resources and assessment tools in Dari and Pashto, the local languages, to make them more useful and easier to find.

Support from leaders and policies: Urge the Ministry of Education and school leaders to make rules and give money for teaching and testing that uses ICT.

Equity and Inclusion: Make sure that all students and instructors can take advantage of digital opportunities, no matter where they live or what gender they are.

NGO and Donor Engagement: Work with both local and international groups to test ICT projects in schools and see how they affect learning.

For subsequent study, extensive investigations must be undertaken throughout other provinces with larger and more heterogeneous samples. Moreover, subsequent research should incorporate the viewpoints of students and parents, examining the role of ICT in facilitating inclusive education, especially for girls and children in isolated regions.

In conclusion, this study elucidates the significant challenges Afghan instructors have in adapting to the digital transformation of educational assessment. It shows that teachers are ready to use ICT technologies, but they need the right support to do so. Afghanistan has an urgent need for educational recovery, and integrating ICT, especially in assessments, can be very helpful in making schools more inclusive, successful, and ready for the future.

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