

ICT Utilization in Teaching and Learning Islamic Education for Students with Visual Impairments in Malaysia During the COVID-19 and Post-COVID Era

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ABSTRACT

The use of Information and Communications Technology (ICT) has undeniably brought numerous advantages across various sectors, including education, development, and economics. The impact of ICT was particularly magnified during the COVID-19 pandemic, as the country faced unprecedented challenges. In Malaysia, the education sector was notably affected, with the Movement Control Order (MCO) hindering normal teaching and learning activities. This disruption extended to Islamic Education in Malaysian Special Education, particularly for students with disabilities. This article aims to explore the utilization of ICT in the teaching and learning of Islamic Education for students with visual impairments during the COVID-19 pandemic and the challenges these students encountered. Additionally, it discusses potential strategies for improving the ICT usage experience for these students. The research adopts a qualitative approach, drawing data from online forums and relevant documentation. The findings indicate that students with visual impairments faced several obstacles, such as inadequate access to devices, poor internet connectivity, and limited proficiency in using technology. This study provides insights into how Islamic Education teachers can overcome these challenges when incorporating ICT in their teaching practices and offers recommendations for enhancing the learning experience of visually impaired students, both during the COVID-19 pandemic and Post COVID-19.

. It also aims to serve as a reference for educational institutions in refining their approach to inclusive education for students with disabilities in the future.

Keywords: *ICT Utilization, Islamic Education, Visual Impairments, COVID-19.*

INTRODUCTION

The COVID-19 pandemic, which spread across Malaysia, profoundly disrupted various vital sectors such as the economy, tourism, business, and education. The resulting turmoil created widespread concern among stakeholders, including the Malaysian public. To mitigate the spread of the virus, the Malaysian government implemented the

Movement Control Order (MCO), restricting citizens' daily activities and permitting only essential services—such as retail, banking, and healthcare—to continue operations (Fareez Azman, 2021). Non-essential sectors were temporarily halted in adherence to Standard Operating Procedures (SOPs) and MCO guidelines. However, many of these sectors shifted to remote operations, including working from home, as recommended by the government. This transition highlighted the crucial role that Information and Communications Technology (ICT) played during the pandemic.

Across the globe, ICT advancements have revolutionized numerous industries, with the education sector being particularly impacted. In Malaysia, the education system swiftly adapted to ICT, replacing traditional face-to-face teaching with online Teaching and Learning (PdP) methods. This change, essential during the pandemic, also had a significant impact on the teaching of Islamic Education for students with visual impairments in Special Education settings. ICT facilitated the creation of interactive, engaging, and inclusive learning environments, enabling Persons with Disabilities (PWDs) to become more technologically literate and access better learning opportunities (Mohd Raus, 2013).

Despite its potential, integrating ICT into PdP for students with disabilities presents distinct challenges, especially for those with visual impairments who require specialized teaching approaches. Before the pandemic, many teachers had limited experience in conducting online classes for students with disabilities (Azman et al., 2020). Students with visual disabilities frequently encounter difficulties accessing information, which is mainly presented in print or digital formats. Although Braille materials are available, their use is still limited (Bernama, 2018). To improve the PdP process, ICT must be adapted to better meet the needs of students with visual impairments, ensuring it evolves alongside technological advancements.

This article explores the role of ICT in the teaching and learning of Islamic Education for students with visual impairments during the COVID-19 pandemic and Post COVID-19. It will address the challenges faced by these students and offer suggestions to enhance their ICT proficiency, ultimately aiming to improve learning outcomes during and after the pandemic. By building on the lessons learned from this crisis, we can create a more inclusive and accessible educational environment for students with disabilities, ensuring that technology is seamlessly integrated into their learning and daily lives in the future.

LITERATURE REVIEW

The role of Information and Communications Technology (ICT) in supporting various aspects of human life is undeniable, particularly in the field of education. The COVID-19 pandemic has dramatically shifted the way education is delivered, forcing institutions in Malaysia to transition to online Teaching and Learning (PdP) methods. This sudden shift posed considerable challenges, as teachers, students, and parents had to adapt to a new learning environment. Despite these difficulties, ICT proved to be an invaluable tool, enabling the continuation of learning at home during the pandemic.

Modern technology, which began gaining momentum at the dawn of the new millennium, has become an integral part of the education sector. While its adoption was already underway before the pandemic, its use was not as widespread, largely due to limited technological literacy among both students and teachers. Additionally, challenges arose in managing the uncontrolled spread of information, which can sometimes lead to difficulties in filtering content (Syed Hassan et al., 2016). Nevertheless, the rapid

advancement of globalization and technology has ensured that education can now reach a broader audience, offering numerous benefits for all stakeholders, particularly teachers and students.

The Eleventh Malaysia Plan (RMK-11) underscores the government's commitment to fostering a more skilled and knowledgeable workforce, aiming to produce human capital with the right attitude to succeed in the global economy (Noradilah binti Aziz & Lai Wei Sieng, 2019). Technology plays a crucial role in realizing this goal by enhancing the learning process. The integration of technology in PdP allows teachers to adopt creative and innovative teaching methods, significantly improving the quality of education. Digital teaching aids such as e-Learning, M-Learning, websites, and the internet have revolutionized the way teaching and learning occur, making information easily accessible beyond traditional school textbooks.

One notable example of the effectiveness of technology is the use of YouTube, a platform that is widely popular among students. This application serves as an effective tool for delivering lessons through video and audio content, enhancing the learning experience. Originally designed for personal videos and advertisements, YouTube has proven to be an invaluable educational resource, further illustrating the positive impact that technology can have on teaching and learning (Tan & Carol, 2013). It is evident that technological applications, when properly integrated, can offer significant advantages in making education more accessible and engaging for both students and educators.

RESEARCH METHODOLOGY

This study adopts a qualitative research methodology to explore the use of Information and Communications Technology (ICT) in the teaching and learning (PdP) of Islamic Education for students with visual disabilities during the COVID-19 pandemic in Malaysia. Data collection involves two main techniques: documentation and participation in online forums. Researchers analyze relevant documents, such as government guidelines and educational resources, and engage with online discussions where educators and stakeholders share their experiences and insights regarding the implementation of ICT in online education for students with disabilities. The data gathered from these sources provide a comprehensive understanding of the challenges faced by students with visual impairments, such as the lack of appropriate devices, limited internet access, and a lower level of technological proficiency. The qualitative approach allows for an in-depth exploration of the issues and enables the development of practical recommendations to improve ICT usage for Islamic Education teachers and students with visual disabilities.

RESULT AND DISCUSSION

Adaptation of ICT Use in Teaching and Learning (PdP) of Islamic Education for PWDs Visual During & Post COVID-19

Islamic Education is not only accessible to typical students but also to students with disabilities. The teaching and learning of Islamic Education is crucial, as it covers essential knowledge related to worship, such as prayer, reading the Quran, and other aspects. The Ministry of Education Malaysia (MOE) has taken significant steps to

strengthen Islamic Education for Special Education through initiatives like the j-QAF Program, which caters to students with hearing, visual, and learning disabilities (MOE, 2019). Throughout the COVID-19 pandemic, Special Education institutions have adapted by utilizing online Home Teaching and Learning (PdPR) platforms to continue their teaching and learning processes.

The role of ICT is vital not only for typical students but also for students with disabilities, enabling them to maintain their learning during the pandemic. As highlighted by Ms. Nur Atiqah Abdul Aziz (2020), ICT is universally accessible, being widely used in daily activities such as accessing information and using the internet. It has become a crucial tool for disseminating information and knowledge, allowing Persons with Disabilities (PWDs) to stay informed and connected. In this context, both PWD students and Islamic Education teachers have adapted ICT tools to support their PdP processes during the COVID-19 pandemic.

Encik Ahmad Danial Mohd Sani (2020), a student with a Visual Disability from the International Islamic University of Malaysia (IIUM), emphasized that various technologies, both hardware and software, are available to assist students with visual disabilities in their learning and daily activities. Hardware options include mobile phones and laptops, while software tools such as screen readers, Job Access with Speech (JAWS), Zoom, Skype, and Google Meet can support the learning process. For example, JAWS helps students with visual disabilities by reading the computer screen and providing access to notes and materials shared by instructors through online platforms like Zoom.

According to Encik Zakaria Yahya (2020), a Special Education teacher with a Visual Disability, ICT is indispensable for people with visual disabilities. It is essential because technology is integral to daily life, including learning, online shopping, and more. Therefore, it is crucial for students with disabilities to acquire technological skills to facilitate their daily activities. Additionally, accessible technologies such as Apple's iPhone, which can read and interpret graphics like emojis and images as sounds, have become game-changers. Encik Zakaria also shared his use of technologies such as Google Meet, Google Classroom, WhatsApp, and SMS for PdP, alongside Iqra' braille learning materials produced by Universiti Sains Islam Malaysia (USIM), which were also conducted online.

In conclusion, ICT plays a critical role in supporting both teachers and students with visual disabilities in their teaching and learning processes, not only within Islamic Education but across all learning domains, particularly during the COVID-19 pandemic. The adaptation of ICT in Islamic Education for students with visual disabilities has provided a means to facilitate their learning, highlighting the importance of continued ICT use in education even after the pandemic. The knowledge and use of ICT are now essential for both typical students and PWDs, reflecting the growing inclusivity in the educational landscape that will continue to evolve post-COVID.

Challenges of Students with Visual Disabilities Using ICT in Islamic Education Teaching and Learning (PdP) During COVID-19.

The implementation of online Teaching and Learning (PdPR) during the COVID-19 pandemic has raised significant questions regarding how students with disabilities, particularly those with visual impairments, adapt to this new mode of education. Students with disabilities face unique challenges, especially when the PdPR method does not align with their specific learning needs. Visual disabilities, for instance, require

specialized techniques such as the use of braille, which poses additional barriers in an online learning environment. One of the most common issues faced by students during online PdPR is the lack of devices and unreliable internet access (Siti Rohaizah Zainal, 2021). This has led many parents to invest significant resources to ensure their children's education continues despite these technological constraints. In some cases, families had to share devices among siblings, further complicating the situation. Azman Ab Rahman et al. (2020) also noted that inadequate access to technology has been a recurring challenge for students with disabilities throughout the COVID-19 pandemic. This issue extends to the teaching of Islamic Education for students with visual disabilities, where some learners lack stable internet connections or the appropriate devices to engage in online PdPR effectively.

Another challenge faced by students with visual impairments is their proficiency in using technology. As pointed out by Encik Ahmad Danial Mohd Sani (2020), not all students with visual disabilities possess the necessary skills to navigate and utilize ICT effectively. Without mastering these tools, such as screen readers and software like JAWS, students cannot fully benefit from the online learning resources available to them. The need for students to improve their technological skills is essential to ensure that they are not left behind in their education. Furthermore, teachers also face challenges when it comes to teaching students with visual disabilities in an online setting. As mentioned by Nur Atiqah Abdul Aziz (2020), many teachers lack the experience and training to conduct online classes for students with disabilities, especially in specialized areas such as teaching Islamic Education with braille. Most teachers had no prior experience with online teaching before the COVID-19 pandemic, and this lack of expertise further impedes the quality of PdPR.

Additionally, some websites and digital platforms present accessibility issues for students with visual disabilities (Zakaria Yahya, 2020). For example, certain websites with heavy use of graphics are not compatible with screen reader applications, hindering students' ability to navigate the content. The limited availability of Islamic Education teaching aids in braille or other accessible formats for students with visual disabilities further exacerbates the situation. As a result, students are often reliant on materials provided by their teachers, limiting their access to broader online resources.

In conclusion, these challenges highlight the need for greater attention and innovation in the education system, particularly for Special Education students in Malaysia. The Ministry of Education (MOE) and other relevant authorities must consider solutions to address these issues, ensuring that Special Education institutions are better equipped to meet the evolving demands of online learning, not only during the pandemic but in the post-pandemic era as well. Creative and adaptive approaches are required to improve the quality of education for students with disabilities and ensure that they are not disadvantaged by the rapid shift towards digital learning platforms.

Contribution of Typical Groups to Encourage the Use of ICT Among Students with a Visual Disability.

Efforts to assist Persons with Disabilities (PWDs), particularly those with visual impairments, in overcoming challenges related to the use of Information and Communication Technology (ICT) should not be seen as a responsibility exclusive to the

PWDs themselves. Instead, it requires a collective effort from all sectors of society, including the typical group. It is essential that the typical group plays an active role in promoting the use and accessibility of ICT for students with visual disabilities. The following methods outline ways in which the typical group can contribute to helping these students adapt to and thrive in the digital age:

1. In-depth Teaching of ICT Skills and Techniques

One of the primary ways in which the typical group can support students with visual disabilities is by providing comprehensive education in ICT techniques and skills. This includes teaching essential tasks such as typing techniques and how to use specialized software like JAWS (Job Access with Speech). As emphasized by Zakaria Yahya (2020), these ICT skills are crucial because technology has become an indispensable part of everyday life. It is particularly relevant in online Teaching and Learning (PdPR) sessions, where devices such as laptops and smartphones are frequently used. By equipping students with visual disabilities with these skills, their learning processes can be made more efficient and accessible. Moreover, proficiency in these skills will not only enhance their educational experience but also open up broader opportunities in various fields, including employment. Hence, the importance of ICT literacy cannot be overstated for students with visual disabilities, as it is no longer just an optional skill, but a fundamental necessity for their academic and professional development.

2. Expansion of Braille Resources

Another significant contribution that the typical group can make is by increasing the availability of braille resources. As noted by Nur Atiqah Abdul Aziz (2020), there is a critical need for more braille translations and written materials that are accessible to students with visual disabilities. The typical group, especially educators and community members, can contribute by creating and distributing additional reference materials in braille, enabling students with visual impairments to access a broader range of learning materials. These resources would not only support the educational growth of these students but also ensure that they have equal access to knowledge and information that is critical for their studies. The more diverse the range of accessible materials, the more opportunities these students will have to engage with their education and explore new topics.

3. Innovation and Development of PWD-friendly Technologies

Another way to assist students with visual impairments is through the development of more inclusive and accessible technological innovations. PWD-friendly technologies such as websites and software designed specifically for users with visual disabilities can significantly improve their ability to access the information they need. Innovations in assistive technologies can provide students with a more seamless learning experience and allow them to navigate educational content with ease. As such, there is an urgent need to expand and improve the digital tools available to students with disabilities, ensuring that they have the same access to online learning platforms, educational resources, and digital

knowledge as their peers. The typical group, including technology developers and policymakers, should prioritize creating such inclusive platforms to support the educational journeys of PWDs.

4. Increased Research and Awareness of PWD Needs

There is also a pressing need to increase research focused on the challenges and needs of PWDs, particularly in the context of education. According to the Action Plan for Persons with Disabilities (PWDs) 2016-2022, Strategic Thrust No. 8 emphasizes the importance of research and development to address the needs of PWDs (KPWKM, 2016). By conducting more in-depth studies into the barriers faced by PWDs in the education sector and exploring solutions, society can foster greater awareness and understanding of these challenges. Research in this area will not only highlight the existing gaps in the education system but will also encourage the development of more targeted interventions to improve the accessibility and effectiveness of education for students with disabilities. The typical group can contribute to this effort by engaging in research, advocating for better policies, and promoting a culture of inclusivity and awareness in the education system.

5. Mastery of Braille by the Typical Group

In addition to the benefits for students with visual disabilities, it is equally important for the typical group to master the use of braille. This skill is valuable because it enables the typical group to directly assist individuals with visual impairments in a variety of ways. For example, by learning braille, individuals can help teach students with visual disabilities, such as instructing them in reading the Braille Quran. Habib Ismail (2017) underscores the significance of this skill, especially when it comes to publishing the Quran in braille for students with visual disabilities in Malaysia. Mastering braille not only enhances the ability of the typical group to support their peers with disabilities but also fosters a more inclusive and equitable environment where individuals with visual impairments have the resources they need to access religious texts and other essential materials. As such, learning braille should be considered a necessary skill for the typical group, particularly for educators, religious leaders, and community members who wish to make a positive impact on the lives of people with visual disabilities.

In conclusion, the responsibility of assisting students with visual disabilities in overcoming the challenges of using ICT lies not only with the students themselves but also with the broader community, including the typical group. By contributing in these five key areas—teaching ICT skills, expanding braille resources, developing inclusive technologies, supporting research, and mastering braille—the typical group can play a vital role in enhancing the educational experiences of students with visual impairments. These efforts will not only improve their academic performance during the current pandemic but also ensure that they are better prepared for a future in which ICT plays an increasingly central role in education and daily life.

CONCLUSION

The landscape of education in Malaysia has experienced a profound shift due to the new norms ushered in by the COVID-19 pandemic. With physical Teaching and Learning (PdP) sessions now replaced by online platforms to prevent the spread of the virus, Special Education institutions, including those serving students with visual impairments, have had to navigate numerous challenges. These students face significant obstacles as they adapt to online Islamic Education PdP. Among the key issues are limited access to devices necessary for participating in online classes, a lack of proficiency in using ICT tools, inexperienced teachers who have not been trained to conduct online classes for students with visual impairments, and difficulties in accessing Teaching Aids, especially with websites that are not user-friendly for Persons with Disabilities (PWDs).

In light of these challenges, it is essential that Special Education institutions receive increased attention and support to ensure that the educational needs of students with visual impairments are met effectively. The current pandemic highlights the critical importance of ICT, which has become indispensable for education, both during COVID-19 and in the foreseeable future. However, the role of ICT must extend beyond the Post COVID-19 times. In the post-COVID era, it is crucial to implement long-term strategies that ensure students with disabilities, particularly those with visual impairments, can continue to thrive in an increasingly digital education landscape.

In the post-COVID era, addressing the challenges faced by students with visual impairments requires a multifaceted approach. A key priority is the enhancement of technological infrastructure to ensure these students have adequate access to devices and reliable internet connections. Collaboration between government agencies, educational institutions, and the private sector will be crucial in building a more inclusive digital environment, ensuring that no student is excluded from the benefits of online learning. Furthermore, it is essential to provide continuous ICT training for both students and educators, focusing on specialized tools such as screen readers and braille technology. Teachers must be adequately trained to effectively conduct online lessons for students with visual impairments, empowering them to deliver an inclusive and impactful learning experience.

Furthermore, the development and implementation of more PWD-friendly websites and online resources are crucial in the post-COVID era. The availability of accessible Teaching Aids, including digital Braille materials and software, can greatly enhance the learning experience for students with visual disabilities. It is also important to continue research and development into assistive technologies that cater to the unique needs of these students, as well as increase the availability of such resources across the educational sector. Ultimately, it is essential that the education system in Malaysia evolves to better accommodate students with visual impairments, not only during the COVID-19 pandemic but also in the post-pandemic period. With the right strategies and sustained efforts, students with disabilities can become active participants in the digital world of education, preparing them to contribute to society and the nation's development in the years to come. The post-COVID educational landscape presents a valuable opportunity to reimagine and strengthen the role of ICT in ensuring inclusive and equitable education for all, regardless of disability.

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