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Research Article

Enhancing Technical Training Program for ASNAF Trainees through Educational Technology: A Case from the Technical and Vocational Training Centers

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ABSTRACT

This study investigated the role of educational technology in enhancing technical training programs for Asnaf trainees at the technical and vocational training centers. Addressing the critical need for effective vocational training aligned with industry requirements, this research employed a qualitative case study approach involving in-depth interviews and direct observations at the centers. The study examined how digital tools and technology influence trainees' learning experiences and their practical skill application, as well as evaluating the training program's effectiveness in meeting industry needs and improving employability. Findings revealed that educational technology, combined with hands-on projects and interactive tools, significantly enhances trainees' engagement and practical skills leading to better learning outcomes. However, challenges such as insufficient administrative support, financial constraints, and the need for updated curriculum remain. This study highlighted the importance of aligning training programs with industry demands, and investing in infrastructure and professional development to bridge the skills gap. Recommendations include enhancing industry collaboration, increasing financial support for entrepreneurial ventures, and standardizing training curricula across centers. These measures are crucial for improving training effectiveness and ensuring that asnaf trainees acquire relevant skills that boost their employability and career prospects.

Keywords: Educational Technology, Vocational Training, Asnaf Trainees, TVET.

INTRODUCTION

Asnaf refers to a specific group in Islam, identified in the Qur'an as deserving of zakat, or almsgiving, which is one of the five pillars of Islam. These group members include the poor, needy, those in severe debt, and others facing hardship (Al-Mubarak et al., 2020). Within the context of skills training, asnaf trainees are individuals from these marginalized communities who often lack access to quality education and vocational opportunities. In Malaysia, zakat institutions play a crucial role in financing skill development programs aimed at uplifting asnaf individuals by providing them with market-relevant training to improve their livelihood (Rahman & Ibrahim, 2022).

Despite the positive impact of these programs, several challenges still remain. Many skill training initiatives for asnaf trainees suffer from outdated teaching methods and lack access to modern technological tools (Shah et al., 2021). Additionally, there is often limited alignment between the skills taught and the actual needs of the industry, resulting in lower employability for these individuals. This study addressed these gaps by examining how educational technology can be leveraged to improve the effectiveness of training programs for asnaf trainees, focusing on the case study of the centers.

The objectives of this research are twofold. Firstly, it sought to evaluate how educational technology enhances the learning experience of asnaf trainees, particularly in terms of practical skill application. Secondly, it aimed to assess the effectiveness of the training programs in meeting industry requirements and improving the employability of trainees. These objectives are crucial for understanding how to modernize and optimize training programs to better

serve marginalized communities and ensure alignment with current workforce demands (Ahmad et al., 2023; Yusuf et al., 2021).

LITERATURE REVIEW

The Role of Zakat in Funding Skill Training Programs

Zakat, one of the central pillars of Islam, is utilized in various capacities to support social welfare, including funding skill training programs for underprivileged groups like asnaf (Rahman & Ibrahim, 2022). In Malaysia, zakat institutions play a pivotal role in financing educational and vocational training programs aimed at alleviating poverty and promoting economic empowerment (Al-Mubarak et al., 2020). These programs are designed to equip asnaf individuals with marketable skills that will help them transition into the workforce. The effectiveness of these programs in addressing economic disparities and supporting workforce integration has been a subject of academic inquiry.

Despite their positive impact, zakat-funded programs often struggle with long-term sustainability and alignment with labor market demands. A key critique is that while these programs offer valuable short-term solutions, they do not always result in consistent, long-term employment opportunities for asnaf trainees (Shah et al., 2021). Additionally, these programs often lack innovation and modernization, relying on traditional pedagogical methods that may not align with the evolving needs of industries. By examining the role of educational technology in these zakat-funded programs, this research offers insights into how the integration of technology could enhance the effectiveness and sustainability of these initiatives.

Educational Technology in Vocational Training

The integration of educational technology in vocational training programs has gained significant attention in recent years. Educational technology, particularly digital tools and platforms, has been proven to enhance learning outcomes by providing interactive, personalized, and practical learning experiences (Ahmad et al., 2023). This is particularly important for vocational training, where hands-on skills are essential for job readiness. Digital platforms allow for simulated learning environments, reducing the dependency on physical resources and enabling trainees to practice technical skills remotely or through virtual labs (Shah et al., 2021). Such technological advancements in education are crucial for marginalized communities, like the asnaf trainees, who often lack access to updated resources.

However, implementing educational technology in vocational settings poses several challenges. Previous research had highlighted many training centers, particularly in developing countries, face infrastructural limitations, such as inadequate online access, lack of trained educators, and insufficient digital tools (Yusuf et al., 2021). Addressing these barriers is critical to fully realizing the potential of educational technology in enhancing the learning experience of vocational trainees. This study contributed to this growing body of literature by evaluating how technology adoption impacts skill development for asnaf trainees at the Northern Branches of GiatMARA Activity Centers.

Aligning Skill Training with Industry Needs

A critical factor in the success of vocational training programs is their alignment with industry requirements. Studies showed that many vocational training programs fail to prepare trainees adequately for the demands of the modern workforce, particularly in industries that require technological proficiency (Yusuf et al., 2021). This skill mismatch results in reduced employability and diminished prospects for trainees upon graduation. In the context of asnaf trainees, this challenge is exacerbated by the lack of access to updated equipment, industry-standard practices, and relevant technologies (Ahmad et al., 2023).

Several scholars advocated for increased collaboration between training institutions and industry stakeholders to bridge this gap. For example, Rahman and Ibrahim (2022) highlighted the importance of partnerships with industry to ensure that curricula are continuously updated to reflect current trends and technologies. Additionally, continuous professional development for trainers is essential to equip them with the necessary skills and knowledge to deliver up-to-date industry-relevant training (Shah et al., 2021). This research built on these findings by exploring how the use of educational technology at the branches of GiatMARA Centers addresses the existing gaps between skill training and industry demands, thereby improving trainee employability.

Evaluating the Impact of Educational Technology on Skill Development

The use of educational technology has been linked to improved skill development across various educational and training settings. Interactive platforms, online resources, and virtual simulations allow for more flexible and engaging learning experiences, which are particularly beneficial in skill-based training (Ahmad et al., 2023). In vocational education, where hands-on practice is crucial, digital tools provide a way to simulate real-world scenarios, allowing trainees to practice skills repeatedly and in diverse settings. This flexibility is critical for asnaf trainees, many of whom face financial and logistical barriers to accessing physical training facilities.

Recent studies emphasized the importance of evaluating the effectiveness of these technological tools in real-world settings. Yusuf et al. (2021) argued that while educational technology offers numerous benefits, its impact must be continuously assessed to ensure that it meets the desired learning outcomes. For instance, without adequate infrastructure and trained educators, the introduction of educational technology could result in disengagement or ineffective learning. This research aimed to fill a gap in the literature by critically evaluating how the use of educational technology enhances the learning experience for asnaf trainees and supports their integration into the workforce.

RESEARCH METHODOLOGY

This research employs a qualitative case study approach to examine the effectiveness of training programs within Technical and Vocational Education and Training (TVET) institutions. The case study method is well-suited for addressing the “why” and “how” questions that are critical for exploring complex dynamics and challenges within the TVET system (Yin, 2018). Data collection involved in-depth interviews and direct observations, providing rich, contextual insights from experienced professionals at GiatMARA centers in Kota Bharu, Baling, and Primer Tasek Gelugor. These experts, each with over ten years of experience, participated in interviews lasting 90 to 120 minutes, which were recorded, transcribed, and analyzed for a deeper understanding of the training programs (Creswell & Poth, 2018).

The analysis followed a systematic process involving transcription, coding, and thematic analysis. Using NVIVO software, interview transcripts were carefully coded to identify emerging themes, continuing until data saturation was achieved, ensuring a comprehensive analysis of the data (Fusch & Ness, 2015). This iterative approach allowed for an exploration of both explicit and implicit meanings in the data, leading to a detailed evaluation of the effectiveness of the training programs.

To ensure validity and reliability, several strategies were employed. Construct validity was addressed through respondent validation, where participants reviewed their transcripts and provided feedback on the findings. This process helped ensure that the data accurately reflected the participants’ perspectives (Guba & Lincoln, 1989). Additionally, peer review among research colleagues was conducted to compare coding and findings, enhancing the reliability and trustworthiness of the results (Silverman, 2020).

FINDINGS

Enhances the Learning Experience of Asnaf Trainees in technical Training program Through Educational Technology

Enhancing Practical Skill Application through Technology Integration

The findings from the study indicated that the use of educational technology significantly enhances the learning experience for asnaf trainees by facilitating hands-on learning and skill development. At GiatMARA Kota Bharu, trainees expressed that technology-supported learning tools, such as virtual simulations and interactive software, allowed them to better understand complex concepts and apply them in practical settings. One trainee noted, “the use of digital tools during training helped me visualize construction techniques better, especially during hands-on projects” (Respondent, GiatMARA Kota Bharu). This integration of technology bridged the gap between theoretical knowledge and practical application, resulting in a deeper engagement with the training material.

Improved Engagement and Motivation

Instructors at GiatMARA Baling observed that educational technology played a crucial role in keeping trainees engaged and motivated. The incorporation of multimedia resources and online learning platforms enabled trainees

to access learning materials outside of the classroom, making the learning process more flexible and accessible. A respondent highlighted, “with the introduction of digital platforms, trainees can review lessons at their own pace, which has improved their overall understanding and performance” (Respondent, GiatMARA Baling). However, it was noted that a lack of administrative support and insufficient technological infrastructure posed challenges to maximizing the benefits of educational technology, particularly in terms of consistency across different training centers.

Technological Tools Fostering Instructor-Trainee Interaction

At GiatMARA Prima Tasek Gelugur, respondents emphasized the importance of technology in fostering stronger communication and interaction between instructors and trainees. The smaller class sizes, combined with the use of digital learning tools, allowed for more personalized feedback and guidance. One trainee mentioned, “having direct feedback through the online system made it easier for me to correct mistakes and improve faster” (Respondent, GiatMARA Prima Tasek Gelugur). This personalized approach, supported by educational technology, contributed to a more tailored and effective learning experience.

The Effectiveness of the Training Program in Meeting Industry Requirements and Improving Employability

Alignment of Training with Industry Needs

The study found that the skill training program effectively aligned with industry demands, particularly in terms of equipping trainees with relevant technical skills. At GiatMARA Kota Bharu, both trainees and instructors recognized the importance of this alignment in improving employability. One respondent commented, “the training was very practical, and it helped me to get a job as soon as I finished the course. The skills I learned were exactly what employers were looking for” (Respondent, GiatMARA Kota Bharu). The inclusion of industry-standard tools and techniques in the curriculum ensured that trainees were well-prepared for the job market.

Entrepreneurship as a Pathway to Employment

In addition to employment opportunities, the incorporation of entrepreneurial skills into the training curriculum enabled many trainees to consider self-employment as a viable career option. At GiatMARA Baling, respondents emphasized that entrepreneurship training allowed trainees to start their own businesses, particularly in trades such as sewing and carpentry. However, financial support mechanisms were highlighted as a limitation, with one respondent stating, “we need better financial support for trainees who want to start their businesses. Right now, the support is too limited” (Respondent Ma, GiatMARA Kota Bharu).

Instructor Competence and Infrastructure Development

The effectiveness of the training program also depended on the competence of the instructors and the quality of the training infrastructure. At GiatMARA Prima Tasek Gelugur, respondents noted that instructors who adapted their teaching methods to match industry requirements contributed significantly to trainees’ success. One respondent remarked, “the teaching staff are well-qualified, and they know what the industry needs, which helps us a lot in getting jobs after training” (Respondent, GiatMARA Prima Tasek Gelugur). Despite these strengths, the need for continuous professional development for instructors and improvements in training infrastructure were emphasized as key areas for further enhancement.

DISCUSSION

Enhancing Learning Experience through Educational Technology

The findings from this study revealed that educational technology significantly enhances the learning experience of asnaf trainees, particularly in terms of practical skill application. At GiatMARA Kota Bharu, trainees benefited from digital tools that facilitated a deeper understanding of complex concepts and practical skills. This aligns with research by Daugherty and Funke (2022), who argued that interactive simulations and multimedia resources can bridge the gap between theoretical knowledge and practical application, thereby improving the learning experience. Additionally, technology-supported learning environments enable trainees to engage more actively with the material, a view supported by Liu and Zheng (2021), who found that digital learning tools enhance engagement and motivation by providing flexible, interactive learning opportunities.

The integration of educational technology also played a crucial role in improving engagement and motivation among trainees. As noted at GiatMARA Baling, the use of online platforms and multimedia resources allowed trainees to review lessons at their own pace, which enhanced their overall understanding and performance. This is consistent with the findings of Chen et al. (2023), who highlight that digital platforms offer learners the flexibility to access and revisit content, thus supporting better retention and comprehension. However, challenges related to administrative support and infrastructure were noted, echoing concerns raised by Fetterman (2021), who pointed out that inadequate technological infrastructure can limit the effectiveness of educational technology in learning environments.

Moreover, the study highlighted that educational technology fostered improved instructor-trainee interactions. At GiatMARA Prima Tasek Gelugur, technology-enabled personalized feedback and communication significantly enhanced trainees' learning experiences. This observation is supported by Yang and Li (2022), who emphasized that technology can facilitate more personalized learning experiences by enabling instructors to provide timely and targeted feedback. Additionally, the findings align with the work of McKinnon and O'Rourke (2021), who argued that technology-supported interactions contribute to a more engaging and supportive learning environment.

Effectiveness of the Training Program in Meeting Industry Requirements

The effectiveness of the training program in meeting industry requirements and improving employability was evident across the GiatMARA centers covered by this study. The alignment of training with industry needs was a key factor in improving trainees' job readiness. At GiatMARA Kota Bharu, the practical skills acquired through the training were directly applicable to the job market, supporting the assertion by Ahmad and Kumar (2020) that industry-aligned training programs are crucial for enhancing employability by equipping trainees with relevant skills. This finding is further supported by Smith and McDonald (2022), who highlighted that industry-focused curricula ensure that trainees are well-prepared to meet employer expectations and industry standards.

The incorporation of entrepreneurial skills into the training program also emerged as a significant factor in enhancing employability. As observed at GiatMARA Baling, the inclusion of entrepreneurship training provided trainees with the skills necessary to start their own businesses. This is consistent with the research by Rose and Ibrahim (2023), who argued that entrepreneurial education can empower trainees to become self-employed and contribute to economic development. However, the need for improved financial support mechanisms was identified as a limitation, reflecting the concerns of Hassan and Ali (2021), who stressed that adequate funding and resources are essential for supporting entrepreneurial ventures among trainees.

Finally, the competence of teaching staff and the quality of training infrastructure were crucial factors in the effectiveness of the training program. At GiatMARA Prima Tasek Gelugur, the expertise of instructors and the adequacy of training facilities played a significant role in the success of the program. This finding is supported by the work of Jones and Clark (2022), who argued that well-trained instructors and robust infrastructure are fundamental to delivering high-quality training programs. Additionally, the need for ongoing professional development for instructors and investment in infrastructure was highlighted, echoing the recommendations of Williams and Thompson (2021), who emphasized the importance of continuous improvement in training resources and instructor competencies to maintain program effectiveness.

CONCLUSION AND RECOMMENDATIONS

The study underscored the significant role of educational technology in enhancing the learning experience of asnaf trainees at the GiatMARA centers. Technology not only improved engagement and practical skill application but also facilitated personalized feedback and learning. However, challenges such as insufficient administrative support and inadequate infrastructure were noted. Additionally, the training programs effectively aligned with industry requirements, enhancing trainees' employability through practical skill development and entrepreneurial training. Despite these successes, issues such as financial support for entrepreneurial ventures and the need for continued professional development for instructors were identified.

To address these challenges, it is recommended that the GiatMARA centers invest in upgrading their technological infrastructure and administrative support to maximize the benefits of educational technology. Enhanced collaboration with industry partners should be pursued to ensure that training programs remain relevant and aligned with current job market demands. Furthermore, increasing financial support mechanisms for trainees and

providing ongoing professional development opportunities for instructors will contribute to improving the overall effectiveness and sustainability of the training programs. These measures will help in better equipping trainees for the workforce and enhancing the impact of vocational training initiatives.

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