

WORK STRESS LEVELS AT MADRASAH TSANAWIYAH ARRUKHSHATUL'ULUM: THE CHALLENGES OF DIGITALIZATION IN DEVELOPING ISLAMIC EDUCATIONAL INSTITUTIONS

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Abstract: Madrasah Tsanawiyah Arrukhshatul'ulum an Islamic educational institution in Indonesia is facing an era of digitalization that forces every academic institution to adapt to technological developments. This research aims to explore the extent of the impact of digitalization on the work stress levels of teaching staff at Madrasah Tsanawiyah Arrukhshatul'ulum. This research uses quantitative and qualitative approaches to provide a more comprehensive analysis. The population in this study was all teachers at Madrasah Tsanawiyah Arrukhshatul'ulum, totaling 14 people, namely 10 permanent teachers and 4 contract teachers. The instrument used was a Likert questionnaire to measure work stress by analyzing data using descriptive statistics and interviews. In this research, it can be concluded that digitalization at Madrasah Tsanawiyah Arrukhshatul'ulum has had a significant impact on the welfare of teaching staff, with the majority of teachers (65%) reporting work stress levels in the medium category, which indicates that they are still in the adaptation phase to the demands of digitalization. However, this condition should not be ignored, because without appropriate intervention, stress levels can increase to the high category, as experienced by 20% of respondents. As many as 80% of teachers feel that they do not have sufficient skills to use digital devices, so they face difficulties in carrying out their duties. In addition, 70% of teachers stated that digital-based administrative burdens, such as filling in data via applications or electronic reports, were felt to have added to their work pressure.

Keywords: Job Stress, Digitalization, Educators

Introduction

Madrasah Tsanawiyah Arrukhshatul'ulum, as an Islamic educational institution in Indonesia, is navigating the era of digitalization, which demands all educational institutions adapt to technological advancements. Digitalization not only offers opportunities such as administrative efficiency and enhanced access to learning resources (Malik, 2018; Souza & Debs, 2024; Tabroni et al., 2022), but also presents challenges, particularly for educators. It requires new skills in managing technology, which educators often have not fully mastered (Alfalah Riski, 2023; Md Sawari et al., 2022; Pastor et al., 2024). According to a report by the Ministry of Education, Culture, Research, and Technology, only 40% of teachers in Indonesia feel adequately skilled in using technology for teaching. The integration of information technology into education has become an essential part of national policy. Programs such as *Merdeka Belajar* (Freedom to Learn) and the use of Learning Management Systems (LMS) are government initiatives to encourage digitalization (Lim et al., 2023). However, the implementation of these

technologies has not always been smooth. Teachers face additional responsibilities such as creating digital materials, managing learning platforms, and providing individualized virtual guidance. These additional demands often trigger stress, especially among those unfamiliar with technology.

Work stress caused by the demands of digitalization has become a common phenomenon in the education sector (Usman et al., 2020). Over the past three years, work stress among teachers has increased by 25%, primarily due to pressure to quickly adopt new technologies. At Madrasah Tsanawiyah Arrukhshatul'ulum, the impact is evident in decreased teacher motivation, increased complaints about workload, and resistance to change. One of the root problems frequently encountered is the lack of adequate training in technology use (Al-Ahmadi et al., 2020; Hölscher et al., 2024; Laster et al., 2023). Many teachers, particularly in remote areas, struggle to access quality training. This is compounded by UNESCO data indicating that only 37% of teachers in developing countries receive relevant technology training. Rural-based madrasahs often face limited internet access, making online training less effective. Work stress not only affects teachers' mental well-being but also directly impacts the quality of education (Indriyani et al., 2020; Nabila Rahma Aulia et al., 2023; Pitriyani et al., 2022; Tsazkia, 2022; Zulkifli et al., 2014). Stressed teachers tend to have lower concentration, unstable emotions, and diminished motivation to teach. Additionally, 78% of teachers experiencing work stress report difficulty in creating a conducive learning environment, ultimately affecting student learning outcomes.

In facing significant challenges like work stress caused by digitalization demands, Islam teaches adherence to the values of piety and finding solutions with optimism. The Qur'an provides guidance that every hardship is always accompanied by ease, as stated in QS. At-Talaq: 2

وَمَنْ يَتَّقِ اللَّهَ يَجْعَلْ لَهُ مَخْرَجًا ۖ

Translation: "Whoever is mindful of Allah in all matters, He will provide him a way out of every difficulty" (Agama, 2024)

This verse reminds us that mindfulness of Allah (*taqwa*) is the key to finding solutions when facing difficulties, including work-related stress. *Taqwa* signifies adherence to Allah's commands and avoidance of His prohibitions with full consciousness. It serves as a primary guide, leading individuals toward the right path in every aspect of life, particularly when dealing with challenges. According to Quraish Shihab, *taqwa* is the ability to maintain oneself within the limits set by Allah. He emphasizes that *taqwa* should manifest in attitudes, actions, and relationships with others and the environment (Tamphu et al., 2024). Furthermore, Sayyid Qutb (Nurhikmah, 2024), adds that *taqwa* is a profound awareness of Allah's presence in life, encouraging one to always remain on the straight path. He views *taqwa* as a source of inner strength that brings peace and courage in facing life's challenges. In general, *taqwa* is a comprehensive concept encompassing obedience, caution, and full awareness of Allah's watchfulness in every aspect of human life. Allah promises His mindful servants that He will provide a way out of every difficulty, whether worldly or spiritual. This way out could come in the form of ease in resolving problems, new ideas, unexpected help, or inner strength to endure trials. This verse teaches that when facing challenges like work-related stress or other difficulties, *taqwa* is the ultimate solution. By drawing closer to Allah, individuals gain His help, solutions, and inner peace. In addition to being mindful, this verse encourages entrusting all matters to Allah after putting in the effort (Nursalam., Nurhikmah., & Purnamasari, N, 2019). It instills confidence that every test is temporary, and Allah's help will surely come to those who are obedient and patient. This interpretation provides a message that when facing challenges such as work stress, *taqwa* to Allah is the first step to finding a blessed and sustainable solution. As educators bearing significant responsibilities, teachers can draw motivation from this verse to continue learning, adapting to changes, and seeking support from institutions and educational communities.

As an Islamic-based institution, Madrasah Tsanawiyah Arrukhshatul'ulum also faces the challenge of aligning technology with Islamic educational values. Teachers are not only educators but also moral and spiritual guides (Al Ayyubi, Muhaemin, et al., 2024; Al Ayyubi, Noerzanah, et al., 2024; Al Ayyubi, Riyadi, et al., 2024; Bukhori & Al Ayyubi, 2023; Murharyana et al., 2024; Mutaqin et al., 2024; Sabarudin et al., 2023, 2023). Therefore, it is essential to design a digital approach that focuses not only on technical aspects but also on instilling Islamic values. In addition to limited training, infrastructure issues are a major obstacle to digitalizing education in Indonesia. According to data from the Central Bureau of Statistics, approximately 43% of schools in Indonesia still have limited internet access. Madrasah Tsanawiyah Arrukhshatul'ulum, located in a semi-urban area, often

experiences network disruptions that hinder digital learning processes, preventing teachers and students from utilizing technology optimally (Hanun et al., 2023; Joyoleksono et al., 2022; Lestari & Masyithoh, 2023; Sari & Hamami, 2022; Yarissumi, 2017). To reduce work stress caused by digital adaptation, adequate psychological support for teachers is crucial. Programs such as work counseling, stress management training, and group discussions can help teachers manage the pressures they face (Al-Ahmadi et al., 2020; Hölscher et al., 2024; Kumala, 2024; Nursikin, 2016; Usman et al., 2020). This is vital for maintaining teachers' mental well-being, which is the cornerstone of educational success. The challenges of digitalization in the education sector cannot be addressed by madrasahs alone. Collaboration between the government, educational institutions, and the private sector is needed to provide adequate infrastructure, training, and support. Some collaborative programs, such as providing cloud-based learning platforms by technology companies, have been successfully implemented in several schools in Indonesia as a model solution.

Based on this, the purpose of this study is to explore the extent of the impact of digitalization on the work stress levels of educators at Madrasah Tsanawiyah Arrukhshatul'ulum. Thus, the results of this study are expected to provide strategic recommendations for managing work stress and enhancing the madrasah's readiness to face digital transformation. By understanding the existing challenges and opportunities, Madrasah Tsanawiyah Arrukhshatul'ulum can become a model Islamic educational institution that successfully adapts to the digital era without abandoning spiritual and moral values. Additionally, this study is expected to assist the madrasah in designing technology implementation strategies that align with teachers' capabilities and students' needs. For example, providing user-friendly digital platforms and mentoring programs by more experienced teachers can help reduce the stress of adaptation. Furthermore, this research aims to improve teachers' mental well-being through the implementation of work-life balance programs. Support such as flexible working hours for teachers facing technological pressure or regular discussion sessions to share challenges and solutions are practical steps that can be taken. On the other hand, this research also offers concrete guidance for creating healthier and more productive working conditions, enabling Madrasah Tsanawiyah Arrukhshatul'ulum to continue thriving as a high-quality educational institution in the modern era.

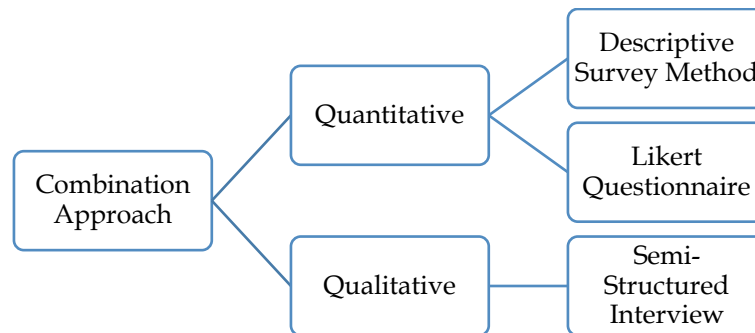
Method

This study employs a quantitative approach with a descriptive survey method to measure the level of work stress among teachers at Madrasah Tsanawiyah Arrukhshatul'ulum. This method was chosen to provide an overall depiction of the intensity of work stress and its contributing factors (Creswell, 2010). Additionally, semi-structured interviews were used as a complementary method to gain deeper insights into teachers' experiences in dealing with digitalization. The combination of quantitative and qualitative methods aims to provide a more comprehensive analysis. The population for this study consists of all 14 teachers at Madrasah Tsanawiyah Arrukhshatul'ulum, including 10 permanent teachers and 4 contract teachers. Due to the relatively small population size, this study employs total sampling, where all members of the population are included as respondents. This approach ensures full representation of all teachers, making the research findings reflective of actual conditions without sample bias. Total sampling is particularly relevant for studies with limited populations.

The main instrument used in this study is a Likert scale questionnaire to measure the level of work stress. A five-point Likert scale was applied, with response options ranging from "strongly disagree" to "strongly agree." The questionnaire covers various topics, including workload, technology adaptation, and digital administration. This instrument was designed to evaluate different aspects related to work stress with reliable and valid measures. To complement the quantitative data, semi-structured interviews were conducted with selected teachers chosen purposively based on high levels of stress. These interviews were designed to explore teachers' in-depth experiences, such as specific challenges in coping with digitalization and their strategies for overcoming them.

The data analysis techniques employed include both quantitative and qualitative analysis. Data from the questionnaires were analyzed using descriptive statistics, such as frequency, mean, and percentage. This analysis aims to identify general patterns in the level of work stress among teachers (Sugiyono, 2021). For instance, the analysis could reveal the percentage of teachers experiencing high stress in certain areas, such as workload or

technology adaptation. Software like Microsoft Excel was used to facilitate data processing. Meanwhile, interview data were analyzed using thematic analysis, involving steps such as initial coding, theme grouping, and interpretation. This process helped the researcher identify key themes, such as *“lack of technology training”* or *“excessive administrative burden.”* The mixed-methods approach in this study was designed to produce a comprehensive analysis. By involving all teachers at Madrasah Tsanawiyah Arrukhshatul'ulum, this research provides a holistic view of the levels of work stress and the factors influencing it. This approach also assists in designing relevant strategies to reduce work stress and improve the madrasah's preparedness for digitalization.



Picture 1. Research Method

Findings and Discussion

Findings

The study revealed that the majority of teachers at Madrasah Tsanawiyah Arrukhshatul'ulum experienced a moderate level of work stress, accounting for 65% of respondents. Meanwhile, 20% reported high stress levels, and 15% experienced low stress. These findings indicate that although most teachers can still manage their work pressures, the impact of digitalization has started to affect their well-being. Teachers experiencing moderate stress levels are generally in the process of adapting to the changes brought by digitalization, though this adaptation has not yet been fully optimized. Those with high stress levels cited limited technological skills and increased administrative burdens as the main contributors to their stress. On the other hand, teachers with low stress levels are typically more accustomed to technology or receive adequate support from the school system. These conditions highlight the need for systematic efforts to help teachers adapt to the digital era, especially for those facing greater challenges (Kim et al., 2020; Liam et al., 2023; Malik, 2018; Park et al., 2021; Setiyadi et al., 2021).

A significant 80% of respondents identified the lack of technology training as the primary cause of their work stress. Most teachers felt inadequately equipped with the technical skills needed to use digital tools for teaching and administration. This challenge was exacerbated by the absence of follow-up support or training programs after the introduction of technology, leaving many teachers overwhelmed as they tried to learn new tools while managing their daily responsibilities. This aligns with findings in other developing countries where insufficient technology training poses a major obstacle to digital education transformation. Additionally, 70% of teachers mentioned that digital-based administrative workloads significantly contributed to their stress. Many felt that new systems, such as digital grading applications or performance reporting platforms, required more time and effort compared to previous manual methods.

They also expressed concerns that administrative tasks reduced the time available for lesson preparation or direct student interaction. These issues were worsened by the lack of user-friendly features in some digital platforms, leading to frustration. Furthermore, 50% of teachers reported feeling pressured by performance evaluations based on their technological skills. This pressure arose from the perception that evaluations focused more on their ability to use digital tools rather than their overall pedagogical effectiveness. Teachers who were less familiar with technology felt this assessment was unfair, as their teaching competence remained strong despite their technical limitations. These findings align with previous studies stating that mismatches between job demands and individual skills can lead to high levels of work stress (Istikomah, 2018; Khodijah et al., 2021; Putri & Nugroho, 2016).

The primary solution proposed is to provide intensive training for teachers to improve their digital literacy. This training should be practical and tailored to specific needs, such as using educational applications, managing student data, and creating digital teaching materials. Ongoing programs are necessary to ensure teachers can keep up with technological developments, as need-based training is more effective in enhancing technical skills among educators. Another strategy involves implementing automation systems to reduce administrative burdens. For example, software that can automatically process student data or simplify performance reporting would enable teachers to focus more on their core responsibilities: teaching and mentoring students. Automated technology in educational administration has been shown to reduce workload by up to 30% while increasing efficiency. Recognizing the importance of emotional well-being, psychological and spiritual support programs are also recommended to help teachers manage stress. Spiritual guidance sessions, such as religious study groups or reflection meetings, can provide teachers with inner peace and boost their motivation. Additionally, psychological counseling sessions can serve as a platform for teachers to share their challenges and find appropriate solutions. Systematically designed emotional support programs have been shown to improve workers' mental health by up to 40%, ultimately enhancing their productivity.

Discussion

This approach is especially relevant in Islamic education, where teachers bear responsibility not only for knowledge transfer but also for the spiritual development of students (Al Ayyubi, Murharyana, et al., 2024; Murharyana et al., 2023, 2024; Sabarudin et al., 2023, 2023; Sabarudin, Al Ayyubi, & Rohmatulloh, 2023b, 2023a). Stressors such as excessive workloads, insufficient technology training, and digitalized administrative demands often test teachers' patience and resilience. Teachers are frequently tasked with diverse responsibilities, including teaching, lesson preparation, and student evaluations. In madrasahs, these responsibilities are compounded by the additional duty of integrating Islamic values into every learning process. The rapid pace of digitalization demands new skills that educators do not always possess. Unpreparedness in facing these changes can increase work pressure. In addition to teaching, teachers must also manage digital-based administrative tasks such as electronic grade reporting and application-based performance evaluations. These administrative responsibilities often feel burdensome due to inadequate infrastructure and training.

Despite these challenges, teachers, as educators and role models for future generations, continue to face heavy and complex workloads. From mastering modern technology to handling evolving administrative tasks, these responsibilities test their patience and adaptability. However, in the face of such difficulties, the promise of Allah offers solace, as stated in QS. Al-Inshirah (94:5-6)

فَإِنَّ مَعَ الْعُسْرِ يُسْرًا , إِنَّ مَعَ الْعُسْرِ يُسْرًا

Translation: " *Veirly, with hardship comes ease. Veirly, with hardship comes ease*". (Agama, 2024)

This promise reminds us that challenges are not the end of the struggle but rather the pathway to discovering the ease that Allah has promised. With sincere faith and effort, every obstacle can open new opportunities to learn, grow, and improve. Through the struggles faced by teachers in the field of education, there is a profound hope that every challenge will bring forth ease, progress, and blessings not only for themselves but also for the students and communities they guide.

Moreover, digitalization presents significant opportunities for Islamic education, such as easier access to diverse and rich learning resources (Karuniakhalida et al., 2019; Lafendry, 2022; Setiadi et al., 2023; Tetambe & Dirman, 2021; Zainiyati, 2018). Technology enables madrasahs to reach students in various locations, improve administrative efficiency, and strengthen collaboration between teachers, students, and parents. However, digitalization also brings major challenges, including infrastructure gaps, a lack of digital literacy, and concerns over the negative impact of technology on Islamic values. Technology has revolutionized how madrasahs manage learning and administration. Online learning platforms allow teachers to deliver content more interactively, while cloud-based education management systems help organize student data and other administrative tasks. However, this transformation requires organizational readiness, ranging from educator training to the provision of adequate infrastructure. Based on the discussion above, it is evident that the majority of work stress among teachers at

Madrasah Tsanawiyah Arrukhshatul'ulum falls into the moderate category. The primary causes include a lack of technology training, high administrative workloads, and pressure from digital-based evaluations. Proposed strategies such as intensive training, administrative burden automation, and emotional support are expected to serve as effective solutions for creating a healthier work environment and supporting sustainable digital transformation.

Conclusion

This research highlights that digitalization at Madrasah Tsanawiyah Arrukhshatul'ulum has a significant impact on educators' well-being. On one hand, the digital transformation offers potential benefits, such as increased administrative efficiency and technology-based learning. On the other hand, it poses major challenges, especially for teachers who are not fully prepared to adapt to these changes. The majority of teachers (65%) reported moderate levels of work-related stress, indicating that they are still in the process of adapting to the demands of digitalization. However, this condition should not be overlooked, as without proper intervention, stress levels could escalate to the high category, as experienced by 20% of respondents. High levels of work stress can potentially affect the quality of teaching, work motivation, and overall mental health of educators.

The main factors contributing to stress identified in this study include a lack of technology training and an increase in administrative workload. A total of 80% of teachers reported that they lack sufficient skills to utilize digital tools, making it difficult for them to carry out their responsibilities effectively. Additionally, 70% of teachers stated that digital-based administrative tasks, such as data entry through applications or electronic reporting, have added to their work pressure. This workload is often perceived as greater compared to previous manual methods, particularly because many platforms are not user-friendly or require significant time to master. Digitalization also introduces new pressures in the form of technology-based performance evaluations, where teachers feel judged more on their technical skills than on their pedagogical competencies. This has caused frustration, particularly among senior teachers who are less accustomed to technology. These findings underscore the importance of providing more structured support to help teachers face the challenges of digitalization through training, workload reduction, and emotional support.

Although digitalization brings significant opportunities for education, its success largely depends on individual readiness and systemic support. Therefore, a comprehensive strategy is needed to ensure that teachers can adapt without feeling overwhelmed, allowing the digital transformation process to proceed smoothly and yield optimal benefits. Digitalization presents significant challenges for educators at Madrasah Tsanawiyah Arrukhshatul'ulum. While the majority of teachers experience moderate stress levels, it requires serious attention to prevent escalation to higher levels. The main causes of stress are insufficient technology training and increased administrative workloads. Future research is recommended to conduct more in-depth studies on the psychological impact of digitalization on educators, particularly on the relationship between work stress levels and factors such as emotional exhaustion, job satisfaction, and motivation.

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