

TEACHER BURNOUT IN THE DIGITAL TRANSITION: IMPLICATIONS FOR LEARNING QUALITY

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Abstract. Digital transformation in the world of Education has accelerated the change in the teaching-learning paradigm, especially after the COVID-19 pandemic. Teachers now not only act as teachers but also as digital facilitators who must master various technology platforms and online learning media. However, this transition brings challenges in the form of burnout experienced by teachers, mainly due to the imbalance between high job demands and limited resources. This study aims to understand the experience of teacher burnout in the digital transition period, the factors that cause it, and its implications for the quality of learning. Using a qualitative approach with phenomenological design, this study involved 15 teachers from secondary schools who actively implemented online and hybrid learning. The main findings suggest that emotional burnout, which is the first dimension of burnout, causes teachers to feel depressed and demotivated. This fatigue then leads to depersonalization, in which the teacher feels separated from the students and focuses more on administrative tasks than on building personal relationships. The main contributing factors to this burnout are technological demands, the digital administrative burden, as well as the lack of adequate technical support and training. The impact of burnout affects the decline in teaching motivation, the quality of teacher-student interaction, and creativity in learning. The study suggests that educational institutions should provide better technical support, continuous digital training, as well as policies to reduce the administrative burden for teachers so that the quality of learning can be maintained in the digital age.

Keywords: Burnout; Teachers; Digital Transition; Quality of Learning

Article info:

Submitted: 15, january, 2025

Accepted: 28, march, 2025

How to cite this article:

Shellya Tanaya Dhayinta, Mohammad Nasir, Arini Zulfaida, "TEACHER BURNOUT IN THE DIGITAL TRANSITION: IMPLICATIONS FOR LEARNING QUALITY", *EDUCATUM: Scientific Journal of Education*. Vol. 3, No. 1, pp. 26-34, february, 2025.



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1. INTRODUCTION

Digital transformation in education has become a necessity in the 21st Century [1]. The shift towards technology-based learning systems, especially after the COVID-19 pandemic, has accelerated the change in teaching-learning paradigms at various levels of Education [2]. Teachers are now required not only as teachers, but also as digital facilitators who must be able to integrate technological devices, interactive media, and online learning management systems (Learning Management System) [3]. However, amid these opportunities, serious challenges arise in the form of increased work pressure and psychological fatigue among teachers. This phenomenon is known as burnout, which in the context of the digital transition becomes an important issue that has direct implications for the quality of learning [4].

Burnout is a condition of emotional, physical, and mental exhaustion due to prolonged work stress [5]. Maslach and Jackson (1981) in the Model Maslach Burnout Inventory (MBI) explains that burnout consists of three main dimensions, namely:

- a) Emotional exhaustion is a feeling of psychological fatigue due to excessive work pressure;
- b) Depersonalization is the emergence of a cynical and distant attitude towards work or learners;
- c) Decreased personal achievement (reduced personal achievement) is a feeling of inadequacy and reduced effectiveness in carrying out tasks [6].

In the context of digital learning, these three dimensions seem obvious. Teachers must manage additional workloads such as designing online materials, mastering technology platforms, assessing digital assignments, and still maintaining student interaction and motivation. If these demands are not balanced by adequate support, the risk of burnout increases, which ultimately decreases the quality of learning processes and outcomes.

The phenomenon of teacher burnout in the digital transition period can be explained more deeply using Job Demands-Resources (JD-R) Theory developed by Bakker and Demerouti [7]. This theory emphasizes that stress and burnout arise when job demands exceed the individual's job resources. In the context of teachers, job demands include digital administrative pressures, performance targets, technological difficulties, as well as expectations of institutions to continue innovating. While job resources include technical support from schools, adequate ICT training, a supportive work environment, and work-time balance. The imbalance between these two aspects leads to chronic fatigue which has the effect of decreasing motivation and learning effectiveness [8].

Various studies support the relevance of both theories in the context of digital education. Such research conducted by Irawati and Rahmah [9] found that teachers in Indonesia experience great pressure due to online Administration and the use of complex LMS, thus reducing the focus on pedagogy. Then research Rafid, et. al [10] identified that teachers who had low digital literacy showed higher levels of emotional exhaustion than teachers who had adapted well. Later Li and Wang [5] also stated that digital fatigue (digital fatigue) is negatively correlated with student engagement and the quality of learning interactions. In a local context, research from Sulastri and Nugroho [11] found that teachers experiencing digital burnout tend to show decreased creativity and reluctance to innovate in learning.

The quality of learning depends largely on the balance between the psychological well-being of the teacher and his professional demands. Teachers who experience burnout tend to lose enthusiasm, creativity, and accuracy in managing classes. This condition causes learning to be passive, not reflective, and minimal innovation. Hakanen et al [4] show that burnout reduces teacher performance, decreases teaching effectiveness, and has direct implications for student academic achievement. On the other hand, teachers who receive social support, ongoing digital training, and flexible work systems have a lower risk of burnout and are able to maintain a high quality of learning.

Therefore, understanding the phenomenon of teacher burnout in the digital transition period is very important, especially by using the Maslach Burnout Inventory perspective to measure its psychological dimension and Job Demands-Resources Theory to analyze the balance between work demands and available resources. This research is expected to contribute to the development of teacher mentoring strategies, digital workload management policies, and continuous improvement in the quality of learning in the digital age.

2. RESEARCH METHODS

This research uses qualitative approach with phenomenological study design. This approach was chosen because it aims to understand in depth the subjective experiences of teachers regarding the burnout phenomenon they experience during the digital transition period, as well as how these conditions affect the

quality of learning they provide. According to Creswell [12], the phenomenological approach is used to reveal the meaning of an individual's life experience of a particular phenomenon through interpretation and deep reflection.

With this approach, researchers seek to capture the psychological and social meanings of emotional burnout, digital stress, and teachers' perceptions of technology-based workload. This study does not focus on quantitative measurement of burnout rates, but on contextual understanding of how burnout is formed, the factors that cause it, teacher coping strategies, and their impact on learning effectiveness.

This study was conducted in several secondary schools in kota X that are transitioning to digital learning systems (e.g. the use of LMS, e-report cards, or hybrid learning). Location selection is done purposively by considering that the schools are actively implementing technology in the learning activities and teacher administration. This study focuses on the experience of teacher burnout in the digital transition period, including the dimensions of emotional exhaustion, depersonalization, and decreased personal achievement (based on the Maslach Burnout Inventory framework), factors causing burnout, both in terms of job demands (digital work demands, administrative burden, school expectations) and job resources (technical support, digital literacy, work climate) according to the Job Demands–Resources Theory framework, and the implications of burnout on the quality of learning, including teaching motivation, teacher-student interaction, learning innovation, and student learning outcomes.

Data collection techniques were conducted by interviews, documentation and observation of non-participants. Data analysis was done thematically (thematic analysis) with stages according to Braun & Clarke [13]: reading and understanding interview transcripts thoroughly, coding data based on initial themes (eg: emotional fatigue, digital burden, coping strategies, decreased learning quality), grouping the code into main categories and subthemes, interpreting the relationship between themes based on MBI and JD-R theories, and compiling a narrative of research results with direct quotes from participantData collection techniques were conducted by interviews, documentation and observation of non-participants. Data analysis was done thematically (thematigs).

3. RESULTS AND DISCUSSION

General Description of Participants

This study involved 15 teachers from various levels of Education (junior and senior high school) involved in the digital learning process. All participants have more than three years of teaching experience and have been actively teaching online or hybrid since the post-pandemic digital transition. The teachers come from different schools in urban and suburban areas, with different characteristics in terms of technological facilities and institutional support. Here is a brief description of the participant profile:

- a) Age: the age range is between 30 to 50 years.
- b) Teaching experience: all teachers have between 3 to 15 years of teaching experience.

Technology Background: most have basic skills in technology, but there are some who find it difficult in the use of more complex digital learning devices and applications.

Main Findings

From data analysis conducted through in-depth interviews, observations, and documentation, three main themes related to teacher burnout in the digital transition period were found, namely:

- a) Teacher Burnout Experience
- b) Factors Causing Burnout

Implications of Burnout on learning quality

1) Teacher burnout experience

Most of the teachers involved in the study revealed significant burnout experiences, especially related to the increased digital workload. Emotional exhaustion being the dimension most frequently reported by teachers. They feel depressed and tired after hours of using digital platforms, preparing materials, and assessing online assignments. As explained by an Indonesian teacher:

"Sometimes I feel emotionally exhausted after a few hours of interacting with students through Zoom. I kind of lost the energy to motivate them because I was exhausted myself."

The emotional burnout that most teachers experience is related to the challenges of managing online classes that require full attention, as well as the limitations in creating deep interactions between teachers and students. In addition, some teachers also express feelings of depersonalization, in which they feel more separated from students and have difficulty building the personal relationships that are usually created in face-to-face classes. A math teacher said:

"Online is easier technically, but I feel less connected to students. I couldn't read their expressions, so it was difficult to judge whether they really understood the material or not."

2) Factors causing Burnout

Based on The Theory of Job Demands-Resources (JD-R), the factors that cause burnout in teachers are divided into two main aspects:

- a. Job Demands
- b. Job Resources (available resources)

a) Job Demands

The demands of technology: most teachers report that excessive use of technology is one of the causes of fatigue. They feel burdened by the obligation to master various digital learning platforms and new software that is constantly evolving.

Administrative demands: teachers also feel high pressures associated with the administration of digital-based learning, such as filling in online grades, reporting online exam results, and monitoring student learning progress.

Policy uncertainty: some teachers reveal that frequent policy changes related to digital learning, in the absence of adequate training, increase the sense of stress and anxiety. One teacher said: *"policies change all the time, and sometimes I don't feel ready for them. I do not know if I have followed the correct procedure or not."*

b) Job Resources

Technical support: teachers who get good technical support from the school or educational institution tend to experience lower burnout. However, most teachers reveal that the technical support they receive is limited and inadequate, especially for those unfamiliar with technology.

Digital training: some teachers complain about the lack of ongoing training in using relevant technologies. They feel less skilled at utilizing more sophisticated digital learning tools, which ultimately increases job anxiety and stress.

Implications of Burnout on learning quality

Burnout experienced by teachers significantly affects the quality of learning. Some of the impacts identified through interviews and observations are as follows:

- a) Decreased teaching motivation: teachers who experience burnout show decreased motivation to innovate in learning. They prefer methods that do not require much preparation and avoid the use of more complex technologies.
- b) Reduced student-teacher interaction: in online learning, burnout teachers tend to focus more on administration and reduce in-person interaction with students. This has an impact on the declining quality of communication between teachers and students, which should be an important part of the learning process.
- c) Limited innovation: emotionally exhausted teachers are more reluctant to develop new approaches or use technology to its full potential. One physics teacher added: *"I feel like I have too much to think about, so I tend to choose the easy way, such as giving material through slides and not interacting much with students."*

Interpretation Of Results Based on Theory

The results of this study can be explained through the Maslach Burnout Inventory (MBI) theory, which states that burnout occurs when there is an imbalance between high job demands and limited resources. In this study, the high demands of technology and digital administration were the main factors that led to emotional burnout and depersonalization, the two main dimensions in burnout according to MBI. On the other hand, the lack of technical support and adequate digital training exacerbates this condition, thus affecting the quality of learning that teachers can provide. According to Job Demands-Resources Theory, the digital pressures teachers face are higher than the resources they have, thus leading to burnout. The decrease

in the quality of learning that occurs is a direct consequence of this imbalance between demands and resources.

Based on the results of this study, it can be concluded that burnout experienced by teachers in the digital transition period has significant implications for the quality of learning. High digital demands, coupled with limited support, cause teachers to feel emotionally and physically depressed, which leads to decreased motivation and innovation in teaching. Therefore, it is important for educational institutions to provide stronger support, both from the technical side and continuous training, so that teachers can better manage their digital workload and keep the quality of learning optimal.

Teacher Burnout experiences in the Digital transition

As expressed by most of the participants, the burnout experienced by teachers is mainly due to the very high demands of work in the context of the use of digital technologies that have not yet been fully mastered [14]. The first dimension of burnout, that of emotional exhaustion, is particularly pronounced among teachers burdened by the demands of digital administration and inadequate online interaction [15]. Many teachers report feeling physically and mentally exhausted after hours of facing computer screens, managing online classes, and assessing student assignments through digital platforms. One teacher revealed: "I felt pressured by the new technology I had to master, and after a few hours of teaching online, I felt emotionally empty and exhausted. I can't give the same energy as when teaching in a face-to-face class."

Based on the Maslach Burnout Inventory (MBI) theory, this emotional burnout experienced by teachers reflects the first dimension of burnout which can decrease teaching effectiveness and reduce teacher motivation to develop better learning. This emotional burnout often leads to depersonalization, the second dimension in burnout, in which teachers feel separated from students and focus more on managing administration than building deep personal relationships [16].

Based on Job Demands-Resources (JD-R) Theory, the most dominant factor influencing burnout in teachers is job demands or high job demands [17]. In the context of digital learning, these demands include:

Complex and diverse technologies: teachers feel overwhelmed by the need to master different digital platforms and new learning software that are often incompatible with each other. This increases anxiety and stress, as many teachers feel untrained and do not have time to learn.

High digital administrative burden: online learning requires teachers to do more administrative work such as entering grades, providing online feedback, and creating digital-based reports. This administrative burden reduces the time that could otherwise be used to plan more meaningful learning materials.

Policy uncertainty: some teachers have also expressed frustration due to policy vagueness regarding digital learning, such as sudden changes in online curricula or government policies that are often not supported by adequate training.

For example, one teacher revealed: "every time there is a policy change, I feel confused. Not to mention the administrative process that I have to do online. All of this causes me to feel overwhelmed." These high demands cause teachers to feel depressed, unable to keep up with the growing demands of work, which leads to emotional burnout.

Limited resources are another factor that exacerbates the condition of burnout in teachers. In the context of job resources, two main highlights are [18]:

- a) Limited technical support: most teachers report that they do not receive enough technical support from schools or educational institutions to overcome the challenges that arise with the use of technology. Some schools have limited digital infrastructure, while teachers do not always get adequate training on the platforms used.
- b) Lack of digital training: despite some efforts to provide technological training, most teachers find the training insufficient or irrelevant to their daily needs. This lack of technical skills further exacerbates the feeling of overwhelm experienced by teachers.

In this regard, Job Demands-Resources Theory emphasizes that the imbalance between job demands and available resources is one of the main factors leading to burnout [19]. Without adequate support, teachers cannot handle the growing demands of technology and administration.

The impact of burnout on learning quality is significant. Based on the results of interviews, many teachers feel trapped in the routine of digital administration and lose the spirit to innovate in learning. This implies a decrease in the quality of teacher-student interaction. For example, one of the teachers revealed:

"I feel stuck with administrative tasks, and sometimes I don't have time to create more interactive material. As a result, learning feels monotonous and less interesting for students."

Burnout leads to decreased teaching motivation and Learning Innovation, two things that are very important in improving the quality of learning [20]. Teachers who feel burnout tend to avoid the use of more

advanced technologies, preferring easier, albeit ineffective, methods. This is consistent with the Maslach Burnout Inventory (MBI) theory which suggests that decreased personal achievement is the third dimension of burnout, leading to a loss of a sense of competence and productivity in the job [21].

In addition, the inability to interact with students directly in online learning reduces the quality of the teacher-student relationship, which can hinder a more in-depth and holistic learning process. This limited interaction makes students feel less connected to the material being taught, which ultimately affects their learning outcomes.

The results of this study are in line with the Maslach Burnout Inventory (MBI) theory, where burnout in teachers is seen through three main dimensions [22]:

- Emotional exhaustion-teachers feel psychologically and physically exhausted after long hours of working with digital technology, which increases the feeling of being overwhelmed.
- Depersonalization-teachers begin to feel separated from students, lose empathy, and find it difficult to build deep relationships with them.
- Decreased personal achievement-teachers feel they are no longer effective in teaching and feel a decrease in the quality of student learning outcomes.

Table Interpretation based on MBI and JD–R theory

Theoretical Framework	Indicator	Research Findings	Explanation
Maslach Burnout Inventory (MBI)	Emotional Exhaustion	Teachers experience high psychological pressure due to the continuous technological demands and the need to manage multiple digital platforms simultaneously.	Emotional exhaustion reduces teachers' motivation, energy, and enthusiasm, leading to lower teaching effectiveness.
	Depersonalization	Teachers feel emotionally detached from students and lose empathy because they are more focused on administrative and reporting tasks than interpersonal engagement.	This detachment weakens social relationships in learning and diminishes student engagement.
	Reduced Personal Accomplishment	Teachers feel less effective, lack confidence, and perceive a decline in personal achievement when teaching in a digital environment.	The sense of incompetence inhibits professional growth, reflection, and innovation in teaching.
Job Demands–Resources (JD–R)	Job Demands	High digital workload, excessive administrative duties, and frequent policy changes without clear guidance intensify teacher stress levels.	Increased job demands create an imbalance between effort and resources, leading to higher burnout risk.
	Job Resources	Technical support, digital training, and work-life balance are insufficient to sustain teacher well-being.	Limited resources reduce teachers' ability to adapt to technological changes and manage digital stress effectively.

Source : processed data, 2024

The findings of this study confirm the relevance of Maslach Burnout Inventory (MBI) dimensions emotional exhaustion, depersonalization, and reduced personal accomplishment in explaining the burnout experienced by teachers during the digital transition period.

The first dimension, emotional exhaustion, emerges as the dominant form of burnout among teachers. This condition reflects the mental fatigue caused by prolonged exposure to digital platforms, high administrative workloads, and the pressure to adapt quickly to technological innovations. Teachers described their daily routines as “draining,” requiring constant connectivity, responsiveness, and multitasking between online instruction and documentation tasks. As Maslach and Leiter [6] emphasize, emotional exhaustion is often the earliest indicator of burnout, where individuals feel depleted of emotional and physical energy. In

this study, such exhaustion reduced teachers' enthusiasm for lesson preparation, interaction with students, and pedagogical creativity.

The second dimension, depersonalization, follows emotional exhaustion as a psychological defense mechanism. Teachers reported becoming emotionally detached from their students, perceiving their teaching tasks more as routine obligations than meaningful interactions. This detachment led them to focus more on fulfilling administrative duties than on nurturing relationships with students. According to Schaufeli and Bakker, depersonalization is an adaptive but maladaptive response to chronic stress, wherein individuals develop a sense of cynicism and emotional distance to cope with overwhelming demands. In educational settings, this emotional disengagement diminishes the warmth and empathy necessary for effective learning. The third dimension, reduced personal accomplishment, was evident in teachers' self-perception of declining teaching effectiveness. Many felt less capable of engaging students meaningfully in online environments and doubted their professional competence. This aligns with findings by Hakanen et al. [4], who note that a lack of perceived achievement contributes to lower self-efficacy and professional satisfaction. Consequently, teachers' ability to innovate and sustain high-quality instruction diminishes. The combination of these three dimensions reflects a cyclical pattern emotional exhaustion leading to depersonalization, which then culminates in reduced personal accomplishment.

The Job Demands–Resources (JD–R) Theory provides a comprehensive framework for understanding the structural causes of teacher burnout in the digital era. This theory posits that burnout arises when job demands the physical, psychological, or organizational aspects of a job that require sustained effort exceed the job resources, which are the supports available to cope with those demands [7].

The integration of MBI and JD–R frameworks in this study reveals a dynamic interaction between individual psychological responses and institutional working conditions. Emotional exhaustion and depersonalization, as described in the MBI, are directly fueled by the structural imbalance identified in the JD–R model high job demands coupled with low job resources. In other words, burnout among teachers during the digital transition is not merely a personal or emotional issue but a systemic phenomenon rooted in institutional capacity and support structures.

Furthermore, the reduction in personal accomplishment among teachers can be interpreted as a secondary effect of chronic imbalance. When teachers face continuous technological and administrative pressures without sufficient resources, they begin to internalize failure, perceiving themselves as ineffective professionals. This, in turn, affects their motivation and the overall quality of learning delivery.

The study's findings suggest that addressing burnout requires a dual approach: reducing job demands (such as simplifying digital administrative tasks) and increasing job resources (such as providing sustained technical support and mental health programs). By restoring this balance, institutions can protect teacher well-being and enhance instructional quality in the digital education landscape.

In summary, Table 2 illustrates that teacher burnout during the digital transition is both psychological and organizational in nature. The MBI framework captures how teachers emotionally and cognitively experience burnout, while the JD–R theory explains why this phenomenon persists due to structural imbalances between demands and resources. The combined analysis underscores the need for policies that simultaneously strengthen teacher resilience and institutional support systems to ensure sustainable, high-quality education in the digital age.

Burnout experienced by teachers in the digital transition is a complex phenomenon, which is influenced by the imbalance between high job demands and limited resources [23]. As seen in this study, high technological demands, digital administrative burden, and lack of training and technical support cause teachers to feel depressed, emotionally exhausted, and demotivated in teaching. The impact of this burnout not only affects the teacher's personal well-being, but also degrades the quality of learning, reduces creativity in teaching, and affects the teacher-student relationship. Therefore, it is important for educational institutions to provide better support in the form of continuous digital training, technical support, as well as strategies to reduce the administrative burden for teachers.

4. CONCLUSIONS

This study aims to understand the phenomenon of teacher burnout that occurs during the digital transition in learning, as well as analyze its impact on the quality of learning. Based on the findings from in-depth interviews, observations, and documentation analysis, it can be concluded that burnout in teachers in the digital transition period has significant implications for emotional well-being, teaching motivation, and the quality of learning provided. The teachers involved in this study experienced a fairly high emotional fatigue, especially related to job demands related to the use of technology in learning. A dimension of depersonalization was also identified, in which some teachers feel isolated from students and focus more on administrative tasks than on interacting directly with students. The decline in personal achievement was also felt by teachers, as they felt less effective in managing online learning, which affected their level of personal satisfaction with learning outcomes. Based on the theory of Job Demands-Resources (JD-R), this study found two main factors that cause burnout in teachers, namely job demands (job demands) and job resources (available resources). High job demands, such as the use of various digital platforms, the management of complex online administrations, as well as policy changes that are not always clear, are the main factors that cause burnout. On the other hand, Limited job resources, including inadequate technical support, limited digital training, and lack of social support in the workplace, exacerbate burnout conditions experienced by teachers

Teacher Burnout has direct implications for the quality of learning they provide. The emotional exhaustion experienced by teachers reduces their motivation to teach enthusiastically, which has an impact on decreasing interaction with students and creativity in designing learning materials. Teachers who experience burnout prefer teaching methods that are less interactive and less focused on student engagement. This leads to monotonous and less in-depth learning, which in turn lowers student learning outcomes. Burnout also has an impact on the decline in teacher-student relationships, because teachers find it difficult to build closeness with students in an online setting.

The study was limited to a limited number of participants and was only conducted in a few schools in urban areas. Therefore, further research can be done by involving more schools in various regions, including remote areas, to get a more comprehensive picture of teacher burnout in the digital transition. Further research could also expand the focus on the impact of burnout on student learning outcomes, as well as explore more effective coping strategies for teachers to cope with burnout in the digital age

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