

Improving Teacher Resilience: Tackling Burnout Through Cognitive Ergonomics

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Abstract

This community service initiative, conducted by the Universitas Adzkie team at SD Negeri 15 Banuaran, aimed to address the issue of teacher burnout through a cognitive ergonomics approach. Burnout, characterized by mental, emotional, and physical exhaustion due to prolonged work stress, is a significant challenge faced by elementary school teachers. This seminar provided teachers with practical strategies to manage their cognitive workload, improve stress management, and create a more balanced work environment. The event was structured into three stages: preparation, implementation, and evaluation. During the implementation stage, teachers were introduced to cognitive ergonomics principles, including time management techniques, structured breaks, and the use of digital tools to reduce administrative burdens. The seminar also emphasized the importance of mental well-being and its impact on teaching quality and student learning. Feedback from participants indicated a high level of engagement and appreciation for the practical solutions offered. The success of this initiative highlights the importance of addressing teacher burnout through cognitive ergonomics, ultimately contributing to a healthier and more productive educational environment. This program serves as a model for future efforts to support teacher well-being and improve the quality of education in elementary schools.

Keywords: Teacher Burnout; Cognitive Ergonomics; Mental Well-Being; Elementary School; Community Service

Abstrak

Pengabdian masyarakat yang dilakukan oleh tim Universitas Adzkie di SD Negeri 15 Banuaran, bertujuan untuk mengatasi masalah kelelahan guru melalui pendekatan ergonomi kognitif. Kelelahan, yang ditandai dengan kelelahan mental, emosional, dan fisik akibat stres kerja yang berkepanjangan, merupakan tantangan yang dihadapi oleh guru-guru sekolah dasar. Seminar ini memberikan guru-guru strategi praktis untuk mengelola beban kognitif mereka, meningkatkan manajemen stres, dan menciptakan lingkungan kerja yang lebih seimbang. Acara ini disusun dalam tiga tahap: persiapan, pelaksanaan, dan evaluasi. Selama tahap pelaksanaan, para guru diperkenalkan dengan prinsip-prinsip ergonomi kognitif, termasuk teknik manajemen waktu, istirahat terstruktur, dan penggunaan alat digital untuk mengurangi beban administratif. Seminar ini juga menekankan pentingnya kesejahteraan mental dan dampaknya terhadap kualitas pengajaran serta pembelajaran siswa. Umpan balik dari peserta menunjukkan tingkat keterlibatan yang tinggi dan apresiasi terhadap solusi praktis yang diberikan. Keberhasilan inisiatif ini menyoroti pentingnya mengatasi kelelahan guru melalui ergonomi kognitif, yang pada akhirnya berkontribusi pada lingkungan pendidikan yang lebih sehat dan produktif. Program ini menjadi model untuk upaya-upaya mendatang yang mendukung kesejahteraan guru dan meningkatkan kualitas pendidikan di sekolah dasar.

Kata kunci: Kelelahan Guru; Ergonomi Kognitif; Kesejahteraan Mental; Sekolah Dasar; Layanan Masyarakat

1. INTRODUCTION

Education is a fundamental pillar in the development of a nation, and teachers play a crucial role in shaping a quality generation (Shofia, et al, 2024; Gultom, et al, 2024; Putri, et al, 2024; Gultom, et al, 2025). However, amidst increasingly complex demands, teachers often face heavy workloads, both

physically and mentally (Santiago, 2023; Magtalas & Eduvala, 2024). The phenomenon of burnout—mental, emotional, and physical exhaustion due to prolonged work pressure—has become a serious issue experienced by many teachers, particularly at the elementary school level (Yogisutanti, 2019; Sukaningsih, et al, 2023). Burnout not only affects the well-being of teachers but also impacts the quality of teaching and student development (Saptaputra & Salma, 2024).

At SDN 15 Banuaran, Padang, teachers are no exception to these challenges. They are required to multitask, from designing lesson materials, assessing student assignments, to completing administrative tasks. High cognitive load, uncontrolled multitasking, and a lack of adequate support systems are often the main causes of burnout. As a result, teachers at SDN 15 Banuaran experience decreased concentration, difficulty in decision-making, and negative emotions in interactions with students. This ultimately affects students' learning motivation, as they feel emotionally unsupported and do not receive sufficient feedback.

Cognitive ergonomics, as a branch of science focused on mental workload, decision-making, and information processing in the workplace, can be an effective approach to addressing burnout among teachers (Koirala & Maharjan, 2022). By balancing mental workload, improving stress management skills, and designing more efficient work systems, it is hoped that teachers can reduce the cognitive burden they face. Additionally, implementing structured rest periods and fostering social support among teachers can help restore mental energy.

Understanding mental burnout is crucial, especially in professions with high emotional and cognitive demands, such as teaching. Burnout is not merely a state of temporary fatigue but a chronic condition resulting from prolonged stress and overwork (Mohzana, et al, 2023). It manifests as emotional exhaustion, reduced performance, and a sense of detachment from work. For teachers, burnout can lead to decreased concentration, difficulty in decision-making, and negative interactions with students, ultimately affecting the quality of education. By recognizing the signs and causes of burnout, stakeholders can implement preventive measures and interventions to support teachers' mental well-being. This understanding is essential not only for improving teachers' health and job satisfaction but also for ensuring a positive and productive learning environment for students. Addressing burnout proactively can lead to a more sustainable and effective educational system.

Based on this background, this community service program aims to provide concrete solutions to address burnout among teachers at SDN 15 Banuaran, Padang through a cognitive ergonomics approach. By optimizing workloads, improving time management, and providing social support, it is expected that teachers can work more effectively and efficiently, thereby significantly enhancing the quality of education and teacher well-being. This initiative is particularly crucial for SDN 15 Banuaran, where the unique challenges faced by teachers require tailored interventions to ensure both teacher and student success.

2. METHOD

The implementation of this community service activity was carried out at SD Negeri 15 Banuaran, located in Padang City, West Sumatra. The participants of the seminar were teachers from the school. The seminar was delivered using two main methods: 1) the lecture method and 2) the question-and-answer method, with a focus on addressing mental burnout among elementary school teachers through a cognitive ergonomics approach.

1. Lecture Method

The lecture method in community service is an approach where a speaker or a group of speakers conveys information, knowledge, or perspectives to participants through a formal verbal presentation (Shofia, et al, 2024). In this context, the lecture method was used to introduce the concept of cognitive ergonomics and its application in reducing mental burnout among teachers. The material emphasized the importance of balancing mental workload, improving stress management, and designing efficient work systems to minimize cognitive overload. To enhance engagement and understanding, this method was supported by the use of media such as laptops and LCD projectors. The seminar also highlighted practical strategies for teachers, such as time

management techniques, structured breaks, and the use of digital tools to reduce administrative burdens.

2. Question-and-Answer Method

The question-and-answer method is a communication technique where a speaker or facilitator asks questions to the participants and gives them the opportunity to respond verbally (Putri, et al, 2024). This approach fosters interaction between the speaker and the participants, enabling the exchange of ideas, understanding, and knowledge. In the context of addressing teacher burnout, this method allowed teachers to share their experiences and challenges related to mental workload and stress. The facilitator then provided tailored solutions based on cognitive ergonomics principles, such as prioritizing tasks, reducing multitasking, and creating a supportive work environment. The question-and-answer method is an effective tool for building engagement and interaction during community service events or sessions (Gultom, et al, 2024). It also allowed the facilitator to identify specific needs or concerns of the teachers, ensuring that the solutions offered were relevant and practical.

These two methods were chosen to ensure that the material was delivered effectively while encouraging active participation and interaction from the teachers. By applying cognitive ergonomics principles, the program aimed to help teachers at SD Negeri 15 Banuaran manage their mental workload more effectively, reduce burnout, and improve their overall well-being, ultimately leading to a more positive and productive learning environment for their students.

3. RESULT AND DISCUSSION

The seminar held at SD Negeri 15 Banuaran was a community service initiative aimed at addressing mental burnout among elementary school teachers through a cognitive ergonomics approach. In the face of increasing workloads and emotional demands, teachers often experience mental fatigue, which can negatively impact their performance and the quality of education they provide. This seminar was designed to raise awareness about the importance of mental well-being and to equip teachers with practical strategies to manage their cognitive workload effectively.

The seminar was conducted in three stages:

1. Preparation Stage

At this stage, the community service team from Adzkia University held a brief discussion with the administration of SD Negeri 15 Banuaran to plan the seminar. The discussion focused on inviting speakers and facilitators who specialize in cognitive ergonomics and mental health to address the issue of teacher burnout. Based on the discussion, the team and the school agreed on the theme, schedule, and location of the seminar.

2. Planning Stage

During the planning stage, the team outlined the agenda for the seminar, which included:

- Preparing the seminar schedule,
- Identifying the necessary facilities and equipment,
- Selecting speakers and preparing the seminar materials,
- Coordinating with the school regarding the number of participants and the seminar mechanism.

Once the planning stage was completed, the team moved on to the implementation stage.

3. Implementation Stage

The seminar took place on Wednesday, December 11th 2024, at 02:00 PM. The event was opened by the speaker, who began by asking the teachers about their experiences with workload and stress. Many teachers shared their challenges, such as managing multiple tasks simultaneously, dealing with administrative burdens, and maintaining emotional balance in the

classroom. The speaker then introduced the concept of cognitive ergonomics and explained how it could help reduce mental burnout. Practical strategies were shared, such as:

- Time management techniques to prioritize tasks effectively,
- Structured breaks to reduce mental fatigue,
- Digital tools to streamline administrative tasks,
- Stress management practices like deep breathing and mindfulness.

The speaker emphasized that addressing burnout not only improves teachers' well-being but also enhances the learning environment for students.



Picture 1. Presentation Seminar

4. Evaluation Stage

Evaluation was conducted by collecting data through direct observation, distributing questionnaires to assess teachers' understanding of cognitive ergonomics, and gathering feedback on the seminar's effectiveness. Indicators of success included the teachers' enthusiasm during the session, their active participation in discussions, and positive feedback from both the teachers and the school administration. The school expressed appreciation for the initiative and provided constructive feedback for future community service activities.



Picture 2. Series of Community Service Seminar Activities

By focusing on cognitive ergonomics, this seminar aimed to empower teachers at SD Negeri 15 Banuaran with the knowledge and tools to manage their mental workload, reduce burnout, and create a more supportive and productive educational environment.

4. CONCLUSION AND RECOMMENDATION

Based on the Community Service activities carried out by the Adzkia University community service team, it can be concluded that the seminar on "Overcoming Teacher Burnout through a Cognitive Ergonomics Approach" has provided understanding and practical solutions for teachers at SD Negeri 15 Banuaran in managing mental workload and reducing work fatigue. Through the cognitive ergonomics approach, teachers were encouraged to understand the importance of balancing workload, improving time management, and applying relaxation techniques to maintain their mental well-being. This activity is expected to enhance teaching quality and create a more positive learning environment for students.

It is recommended that SD Negeri 15 Banuaran continue supporting efforts to improve teachers' mental well-being through ongoing training related to cognitive ergonomics and stress management. Additionally, the school may consider implementing a more efficient work system, such as utilizing technology to reduce administrative burdens and providing structured break times for teachers. By doing so, teachers can work more effectively and remain motivated in carrying out their duties, ultimately having a positive impact on the quality of education at the school.

Support from the school and collaboration with higher education institutions such as Adzkia University are expected to continue in order to create a healthy and productive work environment for teachers at SD Negeri 15 Banuaran.

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