

The Influence of Environment and Work Motivation on The Availability of Teachers as Educators in Public Schools in Surabaya

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Abstrak - Kekurangan dan distribusi guru yang tidak merata di sekolah negeri masih menjadi permasalahan di berbagai wilayah Indonesia, termasuk di kota Surabaya. Penelitian ini bertujuan untuk mengeksplorasi bagaimana lingkungan dan motivasi kerja mempengaruhi ketersediaan guru sebagai pendidik di sekolah negeri. Dengan menggunakan studi mixed-methods peneliti melakukan wawancara mendalam dengan tiga guru di SDN 1 Kalijudan Surabaya, salah satu sekolah yang mengalami kekurangan tenaga pengajar dengan total guru hanya berjumlah 13 orang dengan rentang usia 40-60 tahun. Data dianalisis untuk mengidentifikasi pola yang muncul terkait persepsi, tantangan, dan motivasi guru. Temuan menunjukkan bahwa lingkungan kerja yang kurang mendukung, seperti rasio siswa-guru yang tinggi, sehingga meningkatkan beban yang berdampak pada guru. Studi ini menyimpulkan bahwa lingkungan kerja dan motivasi kerja merupakan faktor penting yang mempengaruhi keberadaan dan komitmen guru.

Kata kunci: Ketersediaan guru; lingkungan kerja; motivasi kerja; sekolah negeri

Abstract - The shortage and uneven distribution of teachers in public schools remains a problem in various regions of Indonesia, including the city of Surabaya. This study aims to explore how the work environment and motivation influence the availability of teachers as educators in public schools. Using a mixed-methods approach, the researcher conducted in-depth interviews with three teachers at SDN 1 Kalijudan Surabaya, one of the schools facing a shortage of teaching staff, with only 13 teachers aged between 40 - 60 years old. The data was analyzed to identify patterns related to teachers' perceptions, challenges, and motivations. The findings indicate that an unsupportive work environment, such as a high student-teacher ratio, increases the workload on teachers. This study concludes that the work environment and work motivation are important factors influencing teachers' presence and commitment.

Keywords: Teacher availability; work motivation; work environment; public school

Introduction

The availability of teachers as educators is one of the most important aspects in the continuity of the educational process. In various regions of Indonesia, including the city of Surabaya, the shortage of teachers remains a significant challenge. According to a report by Jawa Pos (2023), around 300 teachers retire or leave their positions each year in Surabaya. This occurs while the recruitment of new teachers has not been able to meet the ideal demand. This shortage leads to increased workloads for remaining teachers and negatively impacts the quality of education in public schools.

Previous studies have highlighted factors influencing teacher availability. Unconducive work environments, such as poor facilities, high teacher-to-student ratios, and insufficient administrative support, are known to increase work-related stress and prompt teachers to leave their positions (Hanushek et al., 2007). Additionally, work motivation plays a significant role. Teachers who feel undervalued, have excessive administrative burdens, and lack career development opportunities are more likely to experience burnout and seek other professions (Adoeye et al., 2023). Some initial field reports indicate that despite teachers' salaries being considered adequate, the teaching profession remains unpopular. This data suggests that non-economic factors also influence the low interest in becoming a teacher among the public.

To understand this issue more comprehensively, the Job Demands-Resources (JD-R) theory by Demerouti et al. (2001) provides an important framework. This theory explains that an imbalance between job demands (such as heavy workload and dual responsibilities) and insufficient job resources can lead to burnout and decreased motivation.

Additionally, the Environmental Psychology theory by Moser and Uzzell (2003) offers relevant insights. This theory emphasizes that the physical and social environment is not merely a passive backdrop but an integral component shaping individuals' perceptions, stress levels, and behavior, including that of teachers. In a school context, classroom conditions, infrastructure, noise levels, and student density can influence teachers' comfort and psychological workload. The interactional and transactional approach in this theory emphasizes that teachers are not only influenced by their environment but also actively shape their experiences within their workplace. The availability of social support, control over the environment, and adequate resources can foster place attachment, which positively impacts teachers' motivation and retention. Conversely, environmental pressures such as poor

facilities and overcrowded spaces can cause stress and fatigue, which ultimately influence the decision to stay or leave the profession.

However, most previous studies have been general and quantitative, and few have delved deeply into the direct experiences of teachers in public schools facing teacher shortages. Therefore, this study aims to provide a new perspective through a qualitative approach by exploring how the work environment and motivation influence teachers' presence as educators at SDN 1 Kalijudan, Surabaya. The study also emphasizes the importance of teachers' voices in understanding the root causes and impacts of teacher distribution disparities.

The issue examined in this study is the influence of the work environment and work motivation on the availability of teachers as educators in public schools. The purpose of this article is to analyze in depth the experiences of teachers in facing work challenges and motivation in public schools that are experiencing a shortage of teachers, in order to provide insight into the factors that influence teacher availability.

Method

Secondary data collection for the research was conducted in Surabaya City, specifically at SDN 1 Kalijudan, Kalijudan, Mulyorejo Subdistrict, Surabaya, East Java. SDN 1 Kalijudan was chosen as the target place for the research because the data showed that the ratio between teachers and students was not balanced. The number of students is far above the number of teachers as educators in the school. Based on the data obtained, it is known that there are 550 students and 20 teachers in the school (Ministry of Education, Culture, Research, and Technology, 2025). The research was conducted by assigning three teachers from SDN 1 Kalijudan as research subjects. This research uses a mixed-methods approach, which combines literature review, primary data analysis, and qualitative research. Data collection research was conducted in the form of interviews with the 3 teachers. The initial phase consisted of a systematic literature review following the PRISMA 2020 guidelines (Page et al., 2021) to map dominant trends, Creswell & Pothorks' framework, and research gaps. PRISMA improves methodological rigor by explaining the study selection process, inclusion criteria, and data extraction procedures. Although the PRISMA guidelines were followed to enhance methodological transparency, particularly in relation to study selection, inclusion criteria, and data extraction procedures, the

PRISMA software itself was not employed for data analysis. This decision was due to the limited scope of the available quantitative data, which consisted solely of variables such as the number of teachers and their age distributions, which is not unsuitable for detailed analysis using the PRISMA tool. In the second phase, secondary data from the Indonesian Central Statistics Agency (BPS) were analyzed using machine learning (ML) algorithms in Orange Data Mining (v. 3.1). Techniques such as Support Vector Machine (SVM), Random Forest, Neural Networks, and Decision Trees were applied. SVM, a supervised learning model, excels in high-dimensional classification tasks (Cortes & Vapnik, 1995), while Random Forest improves accuracy through ensemble decision trees (Breiman, 2001). Neural Networks mimic human cognition to identify complex patterns (LeCun et al., 2015), and Decision Trees use feature-based splitting for prediction (Quinlan, 1986). Model performance is evaluated using metrics such as AUC (evaluating classification thresholds), Classification Accuracy, F1-Score (balancing precision and recall), Precision, Recall, and Matthews Correlation (for binary classification). Additionally, feature importance analysis identifies key predictors. The final phase involves qualitative research with three key participants, focusing on understanding context, meaning, and life experiences (Creswell & Poth, 2018).

Result and Discussion

Table 1. Result Statement for Participants

Aspect	Sub-Aspect	Response of Participants		
		Participant A	Participant B	Participant C
School Environment	1. Condition of school facilities and infrastructure (classrooms, learning tools, etc.)	1. It is very supportive, especially in the teaching and learning process, such as projectors, screens, and teaching without writing, so only using files on laptops.	1. The facilities are good, but there is a shortage of rooms. So there are still some classes that start in the afternoon. Students come in the morning first, then go home in the morning before the afternoon classes arrive.	1. It is sufficient, but there must be interaction between the school and the government agency.
	2. Working atmosphere and relationships between teachers and staff at school			2. Very good
	3. Sufficiency of the number of teachers at school			3. There is a shortage of two teachers, because there are 19 classes. However, the
	4. Support or policies from the	2. It is very good, even feeling like a harmonious family		



Aspect	Sub-Aspect	Response of Participants		
		Participant A	Participant B	Participant C
	principal/administration towards teachers 5. Obstacles or difficulties in carrying out duties due to school environmental factors	where teachers help each other to fill in for one another's shortcomings. 3. Currently, the number of teachers is still insufficient, and other teachers are filling in each other's teaching schedules to cover the shortage of teachers at the school, especially in grades 1 and 2. 4. Feeling greatly assisted. 5. To date, there have been no obstacles or disruptive work environments.	2. Okay, here the family model is like cooking together for meals. 3. Currently, there are not enough teachers, so some teachers teach one class in the morning and another class in the afternoon. 4. The school is assisted. 5. No, the environmental factors are good, so they don't cause any issues. However, the distance to the residence is a bit of a hassle, sometimes causing delays despite efforts to avoid them.	teacher-student ratio is insufficient. 4. It is very helpful because a lot of information is provided. 5. Yes. Because schools are not allowed to refuse students with disabilities. It is difficult because these students with disabilities are very hyperactive, do not want to write, do their homework, or study, and only want to play.
Work Motivation	1. The main reasons why people remain in the teaching profession to this day 2. Expectations that schools or the government will support educators' performance 3. Opportunities provided by schools for training or career development 4. The experience of feeling appreciated for	1. I am committed to my work and happy to carry out my duties. 2. In my opinion, the government has done its best so far. 3. Teachers are given the opportunity to participate in training programs organized by the school. 4. Alhamdulillah, I think so.	1. Passion 2. Realize the construction of the school so that the shortage of classrooms can be fulfilled (to be built around June) 3. Yes, given the opportunity 4. Much appreciated 5. Not yet	1. Because I am grateful to be a teacher. I feel a calling from my soul, my conscience, wanting children to finish school well and be useful to the nation. 2. I hope for improved welfare, tools

Aspect	Sub-Aspect	Response of Participants		
		Participant A	Participant B	Participant C
	one's performance as a teacher 5. The experience of wanting to quit the teaching profession	5. Not so far.		to support classroom learning, and more attention to teachers' welfare. 3. Yes, and teachers are required to participate. 4. It is greatly appreciated. 5. Never, and I will never stop.
Availability and Productivity	1. The biggest challenges in pursuing a career as a teacher today. 2. Ownership of side jobs outside the teaching profession. 3. Factors that influence enthusiasm for teaching. 4. Increased workload due to a shortage of teachers. 5. Impact of increased workload on teaching performance.	1. More about the diverse and varied behavior of students and adapting teaching methods to suit students with diverse and varied behavior. 2. I used to work as a barber, but now I rarely open the shop or work there. It helps to supplement the household items that are still lacking. 3. Carrying out tasks and responsibilities as the chosen path. 4. Must quickly adapt to the different material taught by the substitute teacher filling in for the absent teacher's schedule.	1. Perhaps her students are very different from when she first started teaching. Nowadays, they are more... perhaps because of technology, it's a bit difficult to teach them. When she first started teaching, the students were more obedient... but now they are difficult. 2. No, her house is far away, so she definitely doesn't have time. 3. Sometimes after a long vacation, not seeing them makes me miss them so much, it's undeniable. When they can't be controlled, but if	1. In terms of technology, I feel very behind with current technology. I also feel burdened because I have to educate students with disabilities in my class. 2. There is none; I am just a teacher. 3. I enjoy seeing children who can entertain others, and I am very happy to see active students. I am also very happy when there are students who are enthusiastic about exploring knowledge.

Aspect	Sub-Aspect	Response of Participants		
		Participant A	Participant B	Participant C
			we don't see them for a long time, we miss them. 4. If they're unavailable, teachers have to help each other fill in or substitute. Actually, teaching is fine once you know the material well.	4. I have been a homeroom teacher for two classes at the same time. However, I did not mind because many friends helped me. In addition, I also received a stipend.

According to Moser & Uzzel, the physical and social environment can shape perceptions, comfort, and work motivation. From the interview results, teachers said that the school atmosphere was very supportive, both in terms of facilities and warm social relationships like family. However, there was also a lack of classrooms, which meant that some classes had to be held in the afternoon. This creates discomfort and additional psychological stress, consistent with environmental stress theory, which states that environmental demands such as overcrowding can lead to mental fatigue. Positive interactions among teachers, such as helping each other fill scheduling gaps and cooking together, reflect emotional bonds to the workplace that support psychological well-being and motivation.

The school environment provides several job resources, such as technological devices, a supportive work culture, and communication among teachers. However, on the other hand, high job demands arise due to: a shortage of teaching staff, teachers having to teach multiple classes, and a dense and overlapping teaching schedule. This imbalance supports the JD-R theoretical framework that high demands without adequate resources risk causing burnout.

From a social perspective, teachers feel valued, receive training, and demonstrate emotional commitment to their role as educators. A harmonious atmosphere and positive interactions in the workplace foster a positive perception of the profession, aligning with the theory that the environment influences perception, control, and emotional attachment to the workplace. Statements such as feeling that school is like a second home and working out of a "sense of duty" indicate an emotional bond with the social space, which strengthens motivation. Teachers' motivation is greatly supported by psychological resources such as feeling valued, access to training and self-development, and support from colleagues and leadership. Despite heavy workloads, passion and intrinsic meaning in work serve as personal resources, which, according to JD-R theory, can act as a buffer against the negative effects of high job demands.

Teachers face challenges in managing student behavior and diversity, which creates additional psychological burdens and can potentially affect their concentration and productivity, especially if not addressed systematically by the school environment. These challenges are exacerbated by the limited number of teachers, with data showing that there are only 13 teachers available to teach 16 classes. This forces teachers to adapt quickly and take on dual responsibilities to fill the gaps. Teachers must also

adapt teaching materials to the diverse conditions of students. This reflects high job demands. Although teachers remain committed to their duties, the imbalance between demands and available resources, such as the number of staff, rest time, and specialized training, can increase the risk of burnout and reduce productivity.

Conclusion

Based on primary data collected by researchers, it was found that there is a correlation between the limited number of teachers in schools and increased work pressure, in line with Environmental Psychology theory and the Job Demands-Resources (JD-R) model. Unideal physical environmental conditions, such as a shortage of classrooms and inadequate facilities, also contribute to an increase in teachers' psychological burden. Additionally, the lack of support in handling students with special needs further exacerbates emotional stress, reflecting stress resulting from low control over the work environment. Furthermore, high workloads, such as the responsibility of teaching two classes simultaneously and substituting for absent teachers, also reflect job demands that are not balanced with available resources. However, regular training that teachers are required to participate in and recognition of teachers are forms of job resources that have been proven to maintain motivation and work engagement amid high demands. These findings emphasize the importance of improving aspects of the school work environment as an effort to maintain teacher well-being and productivity. Further research could explore policy interventions aimed at reducing job demands and increasing resources in the educational environment.

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