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## EFL LECTURERS' TECHNOSTRESS IN LOW HDI CONTEXTS: FACTORS, IMPACTS, COPING STRATEGIES, AND INTERRELATIONSHIPS

## [TECHNOSTRESS DOSEN DALAM KONTEKS HDI RENDAH: FAKTOR, DAMPAK, STRATEGI PENANGGULANGAN, DAN KETERKAITAN]

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#### Abstract

This mixed-methods study investigated English as a Foreign Language (EFL) lecturers' technostress in low Human Development Index (HDI) contexts, aiming to identify contributing factors, impacts, and coping strategies. The data collection was done through quantitative surveys and qualitative interviews. Twentytwo participants from public and private universities in West Nusa Tenggara, Indonesia, were selected based on their willingness to participate and provided demographic information. The analysis reveals that factors such as techno-complexity, techno-insecurity, and uncertainty significantly contribute to high levels of technostress among EFL lecturers in low HDI contexts. the challenges posed by technostress. Despite participants exhibit adaptive skills in employing coping strategies effectively. The study underscores the need for support programs, such as Technology Professional Development, to enhance EFL lecturers'

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technological proficiency and well-being. These findings have theoretical implications for understanding technostress in educational settings and practical implications for developing strategies to alleviate technostress and improve teaching outcomes in low-resource contexts.

**Keywords**: Coping strategy; EFL lecturers; technostress factors; technostress effect; technology

#### **Abstrak**

Penelitian dengan metode campuran ini menyelidiki technostress dosen Bahasa Inggris sebagai Penutur Asing (EFL) dalam konteks Indeks Pembangunan Manusia (IPM) yang rendah, yang bertujuan untuk mengidentifikasi faktor penyebab, dampak, dan strategi penanggulangan. Pengumpulan data dilakukan melalui survei kuantitatif dan wawancara kualitatif. Dua puluh dua partisipan dari universitas negeri dan swasta di Nusa Tenggara Barat, Indonesia, dipilih berdasarkan kesediaan mereka untuk berpartisipasi dan memberikan informasi demografis. Analisis menunjukkan bahwa faktor-faktor seperti kompleksitas teknologi, ketidakamanan teknologi, dan ketidakpastian teknologi secara signifikan berkontribusi pada tingginya tingkat stres teknologi di kalangan dosen EFL dalam konteks IPM yang rendah. Terlepas dari tantangan yang ditimbulkan oleh technostress, para menunjukkan keterampilan adaptif dalam peserta menggunakan strategi mengatasi masalah secara efektif. Studi ini menggarisbawahi perlunya program dukungan yang disesuaikan, seperti pengembangan profesionalisme dalam penggunaan teknologi, untuk meningkatkan kemahiran dan kapabilitas dosen EFL. Temuan ini memiliki implikasi teoritis untuk memahami technostress dalam lingkungan pendidikan dan implikasi praktis untuk

mengembangkan strategi untuk mengurangi *technostress* dan meningkatkan hasil pengajaran dalam konteks sumber daya rendah.

**Kata Kunci:** Strategi penanganan; Dosen EFL; faktor penyebab *technostress*; efek *technostress*; teknologi

#### INTRODUCTION

The rapid evolution of technology has significantly impacted various aspects of our lives, including education. This transformation has been particularly pronounced in English as a Foreign Language (EFL) teaching, where technology integration has led to significant changes in the classroom (Huang, 2022). The EFL teaching domain has witnessed a surge in the availability and sophistication of digital tools, online platforms, and multimedia resources. These innovations include mobile applications, language learning software, virtual reality (VR), and artificial intelligence (AI), which have reshaped EFL instruction. These advancements provide opportunities for more interactive, personalized, and engaging learning experiences, enabling learners to practice language skills in authentic contexts and explore diverse cultures (Haleem, Javaid, Qadri, et al., 2022).

Technology has also had a profound impact on EFL teaching methodologies. It has facilitated access to authentic language materials, enabled real-time communication and collaboration, and enhanced the development of language skills through gamification and interactive multimedia (Shadiev & Wang, 2022). Language learning applications and online platforms allow learners to practice their English competence at their own pace, anytime and anywhere (Haleem, Javaid, Qadri, et al., 2022; Muslimin & Cahyono, 2023). Additionally, technology-supported assessment tools enable more accurate and efficient evaluation of students' language proficiency, allowing teachers to tailor their instruction to meet individual needs (Muslimin et al., 2023).

However, technology integration also presents challenges and complexities for educators. EFL teachers often experience technostress, a term that encompasses the psychological strain caused by the

increasing demands and pressures associated with technology integration (Nang et al., 2022). Insufficient training, information overload, constant updates, and new tools, as well as the fear of technology replacing traditional teaching methods, can all contribute to the emergence of technostress among EFL teachers (Khlaif et al., 2022).

Technostress can significantly impact EFL teachers' instructional practices and overall well-being (Gugushvili et al., 2020; Jameel Abo Mokh et al., 2021). The psychological burden associated with navigating unfamiliar technologies and the pressure to keep up with rapid advancements can lead to decreased confidence, feelings of inadequacy, and heightened job dissatisfaction among EFL teachers (Khlaif et al., 2022; Muslimin et al., 2023; Nang et al., 2022). This, in turn, can impact their effectiveness in the classroom, hinder student-teacher relationships, and impede the delivery of quality EFL education.

Recognizing the detrimental effects of technostress, EFL teachers have developed coping strategies to manage and mitigate the challenges they face effectively (Nang et al., 2022). These strategies may include seeking professional development opportunities to enhance technological skills, establishing support networks with colleagues to share experiences and solutions (Gozali et al., 2023; Muslimin et al., 2023), engaging in self-reflection and self-care practices, and adopting a growth mindset towards technology integration (Schmidt et al., 2021). By actively addressing and managing technostress, EFL teachers can regain a sense of control, boost their confidence, and create a positive teaching environment that maximizes the benefits of technology while minimizing its negative impacts.

This study on technostress is unique compared to previous research. Different from Khlaif et al.'s (2022) study that focused primarily on identifying factors contributing to technostress among EFL teachers without extensively examining effects and coping strategies, the current research provides a more comprehensive investigation. Additionally, it goes beyond Schmidt et al.'s (2021) mixed-methods study that explored the nature and effects of technostress on job performance and well-being but needed an in-depth exploration of coping strategies. Moreover, the current study extends the knowledge base by exploring coping strategies adopted by EFL teachers to manage technostress, which was not

extensively explored in Efilti and Çoklar's (2019) study. Finally, Muslimin et al. (2023) study explored the technostress phenomenon in a rich resource teaching context (East Java, Indonesia, which was situated ranked 3rd of 34 provinces on the Human Development Index or HDI 2023) that opened interest to investigate a similar issue in a different context, the low HDI context such as in West Nusa Tenggara Province, Indonesia. Overall, this research offers valuable insights into the challenges faced by EFL teachers in integrating technology, providing practical guidance to enhance their well-being and instructional practices. Therefore, this study was developed to answer the following research questions:

- 1. What are the factors that trigger EFL teachers' technostress?
- 2. What are the effects of technostress on EFL teachers' performance?
- 3. What are strategies conducted by EFL teachers to cope with their technostress?
- 4. What are the relationships among EFL teachers' technostress triggering factors, technostress effects, and technostress coping strategies?

#### LITERATURE REVIEW

#### **Technostress**

Technostress is a specific type of stress caused by using digital technologies to accomplish tasks. While most research has explored technostress in business and healthcare, its impact on education is gaining attention. Several factors contribute to technostress, according to Tarafdar et al. (2015). The first is information overload. This occurs when educators are forced to learn and use new technologies, which can increase workloads and require additional training. Second, there's the blurring of lines between work and personal life due to constant connectivity and longer work hours brought on by technology. This is called technological intrusion. The third factor is complexity. When educators lack the skills or knowledge to use new technologies effectively, it can be time-consuming and stressful to learn. Job insecurity

is another concern, arising from the fear of being replaced by someone with more tech-savvy skills. Finally, the constant updates and changes inherent in technology can create uncertainty. Educators may feel overwhelmed by the process of learning and adapting to new systems (Kim & Lee, 2021; Cezar & Macada, 2021).

#### **Technostress studies**

Several studies have explored technostress within the Indonesian context. Firstly, Farmania et al. (2022) show that Indonesian workers experienced increased levels of technostress due to the implementation of the Work-from-Home policy. These workers struggled to adapt their skills to new technologies and approaches required to perform their jobs online. Secondly, Hendartono and Widilestari (2022) explain that maritime university students in Central Java, Indonesia, faced high levels of technostress, which led to emotional exhaustion. Factors such as techno-overload and techno-invasion contributed to their stress during the COVID-19 pandemic's shift to distance learning. Thirdly, Setyadi et al. (2019) mention that lecturers in East Kalimantan Province, Indonesia (ranked 3rd out of 34 provinces in the Human Development Index or IPM), experienced technostress negatively affecting their teaching performance. Finally, Muslimin et al. (2023) investigated the technostress among EFL teachers in East Java Province, Indonesia, ranked 14th on the 2023 HDI by Indonesia's Ministry of National Development Planning (BAPPENAS). Their results highlighted that factors such as technocomplexity, techno-insecurity, and techno-uncertainty significantly contributed to high levels of technostress among participants. Drawing on these research findings, this study aims to investigate the triggering factors of technostress among EFL teachers, its impacts, and coping strategies, particularly in low HDI contexts.

#### **RESEARCH METHOD**

#### **Design and participants**

This study adopted a mixed-methods research design to provide a comprehensive understanding of the impact of technostress on EFL teachers (Schoonenboom & Johnson, 2017). The qualitative component

involves in-depth interviews, while the quantitative component utilizes surveys. This combination allows for triangulation of data, enhancing the validity and reliability of the study's findings. The participants of this study were twenty-two EFL lecturers from both public and private universities in West Nusa Tenggara, Indonesia. The participants were reachable since they joined the English Lecturers Association in West Nusa Tenggara (ADBING NTB). However, they were selected following their agreement to join the research as they were asked to fill online consent form to represent their willingness to join the research. They were also requested to provide details of demographic information including sex, affiliation, years of teaching experience, and teaching expertise. Furthermore, the participants' names were provided in symbols (P1, P2, P3, etc.) to maintain the ethical research procedure. The demographic data of the participants are presented in Table 1.

**Table 1.** Participants Demographic

No	Sex	Affiliation	Teaching Experience	Teaching Focus
1	Male	Universitas	versitas More than 13 years	
2	Male	Pendidikan Mandalika, NTB	More than 13 years	ELT
3	Female	Universitas Mataram, 7-9 years		ELT
4	Female	NTB	More than 13 years	ELT
5	Male		Mana than 12 wasne	ELT, Curriculum
			More than 13 years	Development
6	Female	_	More than 13 years	ELT
7	Male	- LUNI Mataram NTD	More than 13 years	TEFL, EYL
8	Female	UIN Mataram, NTB	More than 13 years	ELT
9	Female	_	4-6 years	CLIL
10	Female	_	10-13 years	ELT
11	Male	-	More than 13 years	ELT
12	Female	Universitas Teknologi	4-6 years	ELT, Linguistics
		Mataram, NTB	4-0 years	
13	Male	STP Mataram, NTB	4-6 years	ELT
			<del></del>	

14	Male		More than 13 years	ELT teaching
	iviaic			experience
15	Female	Sumbawa University	4-6 years	Linguistics
16	Male	of Technology, NTB	4-6 years	ELT
17	Male	Universitas	More than 13 years	ELT
18	Male	Bumigora, NTB	4-6 years	ELT
19	Male	Universitas	7-9 years	Methods in
		Hamzanwadi, NTB		language teaching
20	Male	Universitas Nahdlatul	More than 13 years	ELT
21	Female	Wathan Mataram,	4-6 years	ELT
		NTB	4-0 years	CLI
22	Male	UNAKI, NTB	More than 13 years	ELT, Linguistics,
			iviole tilali 15 years	CALL, MALL

Table 1 depicts the demographic of the present research participants. The data showed that the participants consisted of nine females and 13 males affiliated with ten different universities in west Nusa Tenggara, Indonesia. The majority of the participants had already taught English as a Foreign Language (EFL) for more than thirteen years.

#### Data collection

This study gathered both quantitative and qualitative data. The quantitative data was collected by administering a technostress questionnaire developed based on some studies' (Efilti & Çoklar, 2019; Khlaif et al., 2022; Schmidt et al., 2021) findings. The questionnaire assessed participants' experiences of technostress (the factors) (8 items), its impacts on their well-being and teaching performance (5 items), and the coping strategies they employed (6 items). The survey utilized a five-point Likert scale (1=strongly disagree - 5=strongly agree) and multiple-choice questions to gather quantitative data efficiently and it is presented in Appendix 1. The survey was distributed electronically (applying Google Forms) to ADBING NTB's WhatsApp group that contains 35 members. However, only 22 participants were willing to join this research (see Table 1). Furthermore, the collected data which was stored in the Google Form

were transferred into an Excel file and downloaded as raw data for analysis.

The qualitative data were obtained from the interview process that was conducted after the quantitative data collection (the questionnaire administration). The selection of the participants for the interview was based on their agreement to join the interview by ticking the agreement to join interview option at the end of the Google Form containing the technostress questionnaire. Daniel (2016) states that the interview results can be used to understand the quantitative data for analysis. Upon the interview invitation, all participants agreed to join this research. The interviews were guided by a set of open-ended questions allowing participants to elaborate on technostress triggering factors, the impact resulting from technostress, and the coping strategies.

#### Data analysis

The data analysis was carried out according to the data types. Quantitative data were examined using statistical techniques with SPSS version 23. Descriptive statistics, including frequencies and percentages, summarized the participants' responses. Additionally, inferential statistics, such as correlation analysis, were employed to investigate the relationships between technostress, well-being, teaching performance, and coping strategies. The interview data were analyzed using thematic analysis. Initially, the transcripts were reviewed and coded to identify recurring themes and patterns related to technostress factors, effects, and coping strategies. These codes were then categorized, and overarching themes were developed to provide a comprehensive understanding of the qualitative data.

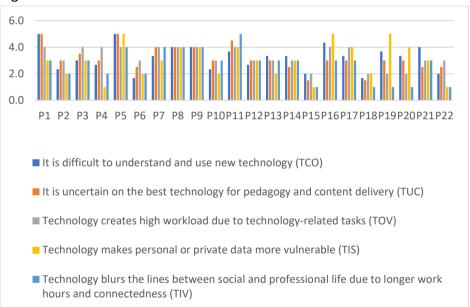
#### **Findings**

The findings obtained from the quantitative data analysis were based on the 22 participants' responses in an online survey by filling out

the technostress questionnaire. The participants' responses were calculated to find the average scores of each questionnaire item. Therefore, the highest score that appeared from the analysis was five and the lowest was 1 point.

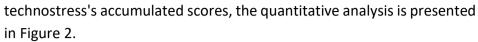
#### The technostress triggering factors

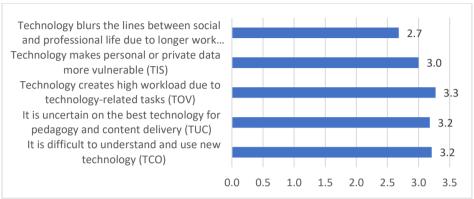
The investigation of technostress in the present study was conducted both quantitatively and qualitatively. The quantitative analysis results regarding the technostress triggering factors are presented in Figure 1.



**Figure 1.** Each participant's technostress factors

Figure 1 shows that each participant claimed different factors that dominantly trigger their technostress. Some participants such as No. 1, 5, 7, 8, 9, 11, and 6 experienced three or more technostress factors that were dominant. Then, participants No. 15 and 18 were quite less affected by the given technostress factors. Then, to comprehend each of





**Figure 2.** The factors that trigger technostress

Figure 2 depicts the technostress factors based on their dominance in triggering the participants' technostress. The most dominant factor that promoted the lecturers's technostress was the creation of a high workload by technology (Techno overload). The least influential factor contributing to lecturers members' technostress was "Techno-invasion," characterized by technology blurring the boundaries between social and professional life due to extended work hours and constant connectivity.

After the technostress survey, the interview with the participants was conducted. The results are presented in the following excerpts

P1: With the advent of technology development and my students' digital literacy, I am afraid that the students' works and data will be hacked just like my Google Drive for students' research proposal. Some of the proposals were stolen and erased from my folder.

P4: As a lecturer, I experience technostress due to several factors. One major cause is the complexity and frequent updates of different digital tools and applications. Additionally, the pressure to seamlessly incorporate technology into my teaching, despite having limited time and resources, further contributes to my technostress. Finally, the insufficient technical support and training opportunities make it challenging to use technology effectively in my teaching, thereby intensifying my technostress.

P10: Technology is fast changing and it's difficult to catch up. Hence, I am just worried that the energy I spend learning technology will be outdated by the time I have mastered it.

P15: using new technology is not easy. Sometimes, I have to watch technology tutorials until late at night, which causes a reduction in my sleeping time. However, I found that I received more workload due to my technological skill improvement.

P18: Being known as a digitally literate and competent brings me more digitally based works. My boss frequently asked me to have extra jobs such as poster and web design since he knew I asked my students to do that during project-based learning (PBL).

Both the survey and the interview responses exposed the technostress factors stated by previous studies (Kim & Lee, 2021; Kumar & Chand, 2019; Tradaflar et al., 2019).

#### The effects of technostress on EFL teachers' performance

The second objective was to know the effect of the technostress on the EFL teachers' performance, i.e., their teaching performance and well-being. The results of the questionnaire administration are seen in Figure 3.

The emergence of the technostress contributes to the EFL lecturers' performance (Khlaif et al., 2022) and it also appears in the present study's participants' responses. The participants mentioned some technostress effects that are depicted in Figure 3.

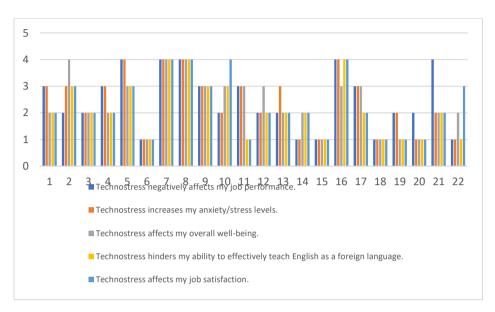
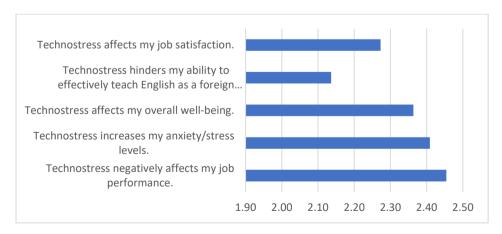


Figure 3. Each participant's technostress effect

Figure 3 shows the different effects of the technostress that the participants experienced while teaching with technology. There were two participants (No. 7 and 8) that experienced all technostress effects. While, more participants (No. 6, 15, and 18) that less experienced the effects of the technostress. Then, to understand the total responses on each technostress effect, the analysis results are presented in Figure 4.



**Figure 4.** The technostress effect

Figure 4 explains that the participants agree to mention that technostress impacts their teaching performance and is less influential in hiding their ability to teach English as a Foreign Language (EFL).

The study on the technostress effects continued by conducting interviews and the results are shown in the following excerpts.

P2: When I should apply technology, I think I am not competent enough. It influences my psychology which reduces my teaching joy.

P5: It is hard to teach without having my teaching mood. I tend to be less interactive with my students when I use technology.

P7: I am not satisfied with teaching with LMS. It creates limits such as I was not able to evaluate students speaking immediately since they just uploaded the video in LMS. I think speaking is also influenced by the presence of the audience and natural gestures.

P8: Sometimes, I get a stomach ache when I cannot finish my lesson plan that employs technology when I should start to teach.

P16: I am an expressive teacher and I like to teach face-to-face with my students. But, because of the teaching trend, the blended learning method, I tried Google Classroom, and I met some of my students who were not attentive.

The participant's responses in the interview support the common effects of technostress on EFL teaching performance.

### The EFL teachers' technostress coping strategies

The third research objective was to know the EFL teachers' strategies to cope with their technostress. The participants recalled their experience of reducing their technostress and reflected on it by choosing the most suitable choices in the online survey. Then the results of the survey are presented in Figure 5.

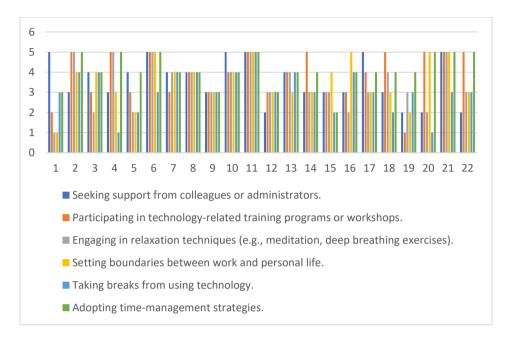
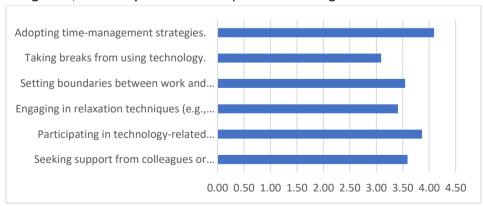


Figure 5. Each participant's technostress self-mitigation

Figure 5 shows that only one participant (Participant 11) applied all the given strategies to mitigate their technostress. Two participants applied five technostress self-mitigation strategies (Participants 6 and 21). Then, to understand the total responses to each technostress lecturer's self-mitigation, the analysis results are presented in Figure 6.



**Figure 6.** The chosen technostress self-mitigation

Figure 6 exposes that adopting a time-management strategy was the most desirable strategy to increase participant ability to reduce technostress. They also reduced their technostress through their enrollment in some technology-related TPD programs. Sometimes, taking a break from using technology was also their option to reduce stress in using technology for teaching EFL.

Furthermore, the technostress self-mitigation ways were elaborated by the participant's responses in the interview. The results are shown in the following excerpts.

P2: Sometimes, I asked my colleagues to design better teaching pedagogy with technology

P5: When I lost my teaching mood, I went out from my class table and saw the view outside and took some fresh air.

P7: To find the solution to the LMS limitation, I joined the workshop outside my campus and shared my teaching experience with the mentor.

P8: When I get tired of technology, I just stop using it and relax for some time. In my opinion, it is not obligatory to use technology in all teaching time.

P16: My colleagues said that I should ask students to always turn on the camera during meetings online through Google Meet. Then, it helps me to control my students' attention.

P18: Since I had a lot of jobs that required me to work with various multimedia and technology sometimes, I made working a priority and execution time. I did not do the job during my weekend.

# The relationships of factors, effects, and coping strategies of the EFL teachers' technostress

The correlational analysis among variables in this research was preceded by a descriptive analysis of the variables using the SPSS 23 version. The results of this analysis are portrayed in Table 2.

**Table 2.** The descriptive analysis results

	N	Minimum	Maximum	Mean	Std. Deviation
Factors	22	163.00	475.00	312.2273	85.73432

Impacts	22	100.00	400.00	232.7273	94.52547
Coping_Strategies	22	250.00	500.00	359.8182	69.22953
Valid N (listwise)	22				

Table 2 shows that the participants' choices spread in all choices (from 'strongly disagree' to 'strongly agree') in the questionnaire for Factor and Effect variables items. However, the participants showed only positive responses for the Coping Strategies variable. The minimum score of the survey proves it was 359.8182 (3.59 in Likert-scale points), meaning that all mentioned strategies were considered beneficial and worth applying by all participants. So, Table 2 depicts different patterns of score correlations among variables. However, further correlational analysis using the SPSS 23 version was done to see the analysis of the variables' correlations.

**Table 3.** The correlations between variables in the research

		Factors	Impacts	Coping_Strategies	
Factors	Pearson Correlation	1	.680**	113	
	Sig. (2-tailed)		.000	.616	
	N	22	22	22	
Impacts	Pearson Correlation	.680**	1	.115	
	Sig. (2-tailed)	.000		.609	
	N	22	22	22	
Coping_Strategies	Pearson Correlation	113	.115	1	
	Sig. (2-tailed)	.616	.609		
	N	22	22	22	
**. Correlation is significant at the 0.01 level (2-tailed).					

Table 3 shows that the technostress triggering factor positively correlated with the technostress effect. It is shown by sig. score of .000 or lower than 0.05. However, their correlation strength was still at a high level as shown by a 0.680 Pearson correlation score (between 0.60-0.80 Person correlation scores) (Schober & Boer, 2018). On the other hand, the EFL teachers' technostress coping strategies did not correlate to the

technostress triggering factor and the effects, as shown by sig. score (0.609) was higher than 0.05.

#### **DISCUSSIONS**

Technostress emerges from the use of digital technologies to fulfill specific tasks (Kim & Lee, 2021). While research on technostress has predominantly focused on the business and health sectors, its impact on education has received less attention (Cezar & Macada, 2021). Tarafdar et al. (2019) outlined five sources of technostress, including technooverload (TOV), characterized by increased work demands on employees due to the introduction of new technology requiring additional training. The adoption of emerging technologies may lead educators to work longer and more intensively (Tarafdar et al., 2015; Panakaje et al., 2024). Techno-invasion (TIV) describes the blurring of boundaries between personal and professional life due to extended work hours and connectivity, often resulting from the mandatory adoption of new technology (Kim & Lee, 2021). Additionally, techno-complexity (TCO) signifies a lack of proficiency and knowledge in utilizing new technology at work, necessitating significant time and effort for training (Cezar & Macada, 2021). Techno-insecurity (TIS) reflects employees' concerns about potential replacement by individuals already proficient in new technology, leading to job insecurity. Finally, techno-uncertainty (TUC) pertains to the ambiguity surrounding learning and adapting to new or updated technology (Cezar & Macada, 2021).

The findings show that the most dominant factor that promoted the lecturers' technostress was the creation of a high workload by technology (Techno overload or TOV) with a score of 3.3 or at a 'Moderate' level. The participants found themselves busier due to additional tasks are given to them if their boss knew that he/she was technologically literate and competent. Also, they should add another

routine to learn the technology that they were interested in conquering. Conversely, the least significant factor contributing to lecturers's technostress was Techno invasion (TIV), indicating that technology blurred the boundaries between social and professional life due to extended work hours and increased connectivity. TIV factors contributed a score of 2.7 or 'Moderate' level. Though both TIV and TOV were in the same technostress level, TIV's score was slightly above the 'Low' level which means the participants rarely experienced this factor.

Compared to another contributive factor to the lecturer technostress, techno uncertainty (TUC) and techno-complexity (TCO) had similar technostress factor scores (3.2) or at a 'Moderate' level. They were only 0.1 scores different from TOV, meaning that they also made a big contribution to this research participants' technostress. These findings were contradicted to some previous studies (Khlaif et al., 2022; Muslimin et al., 2023) showing that techno complexity was the most contributing factor to technostress. In the interview, some participants said that the vast development of technology creates uncertainty about which technology they should learn or comprehend. They were afraid that the time and effort they devoted to learning a potential technology would be meaningless due to another new and more sophisticated technology raised in the public. Then, a slightly lower technostress factor score appeared to techno insecurity (TIS) with a score of 3.0, which was supported by a participant's admission. He/she said that the latest technology makes the hacker possible to steal his/her data or even the students'. Hence, technology should be comfortable for educators to apply it (Graziano, 2018).

The mentioned factors of technostress had impacts on the lecturers. They admitted that technostress increased their anxiety due to their inability to meet the desired teaching standard with technology and delineate their teaching joy. Some of them enjoy traditional teaching in real classrooms rather than teaching synchronously online through

Google Meet or Zoom (Smith et al., 2018). Some of the students were not attentive created dissatisfaction and affected their overall well-being (Blazar & Kraft, 2017). Furthermore, with not pleasant feeling in the lecturers, found their teaching performance was not satisfactory too. The EFL teachers should be ready not only regarding teaching competence but also related to their emotions to be successful in teaching (Stark et al., 2022). Furthermore, the participants found that the limitation of the obliged technology i.e. university LMS and the incompatibility of the use of technology with the lecturers' teaching style (prefer synchronous faceto-face meetings) created the lecturers' technostress, reduced the participants' preference to keep using technology and satisfaction to mediate their EFL speaking teaching. Therefore, the institution should always update the existed technology for better support to the lecturers' teaching (Tapalova & Zhiyenbayeva, 2022). Furthermore, among the mentioned effects of technostress, the lecturers found that their job performance or their teaching was mostly impacted. So, their belief in the professional impact was higher than the impact on their emotions or psychology.

The emerging effects of technostress trigger the lecturers' self-resilience in finding self-mitigation for the technostress factors. It was found that they applied some self-mitigation strategies such as adopting time-management strategies. They plot the time or period when they would work with the technology and when they should enjoy their life routines, i.e. they will enjoy their weekend without being disturbed by the technology-based job. Creating such professional burden boundaries will help the lecturers maintain their mood, which will impact their teaching performance (Bull et al., 2023). In the university, the lecturers went out from the class for a while to relax and bring back their teaching mood. Frenzel (2021) stated that going out of class for a while as a break will bring the teacher's mood back. Sometimes, while they are outside of the class, they also take deep breaths for refreshing. Also, the help of

colleagues was very important for the lecturers to reduce their techno support problems. My colleagues could give the lecturers some positive suggestions based on their best practices (Naylor et al., 2021). However, some said that they have supportive universities and administrative staff that are always helpful to their request and some found less. Hence, they also participated in technology-related training programs. Muslimin et al. (2023) stated that the teacher's professional development program can increase the lecturers' digital literacy competence that can equip them with literacy and competence to reduce their technostress. Finally, the lecturers decided not to employ technology in all the teaching performance. Sometimes, they went back to their traditional teaching as their self-reflection on the better teaching pedagogy with or without technology, and to satisfy their teaching style.

This indicates that the factors triggering technostress directly influence the performance of EFL teachers. Frequent technological changes contribute to teachers' anxiety about learning new technologies, as they fear the technology might become outdated by the time they master it (Cezar & Macada, 2021; Graham et al., 2023). Additionally, the lack of a Technology Professional Development (TPD) program to support EFL teaching has led to dissatisfaction with teaching performance, as teachers struggle to design better lesson plans, deliver more effective teaching, and conduct more efficient evaluations (Gondwe, 2021; Muslimin et al., 2023).

However, the coping strategies employed by participants did not correlate with technostress factors and effects. According to Seymour (2016), human self-determination drives individuals to find coping strategies when facing life challenges, including those encountered in EFL teaching. Since all the strategies mentioned in the survey and interviews were effective in reducing technostress regardless of the factors and effects, participants utilized all of them. This research supports the idea that EFL teachers possess adaptive skills to overcome challenges and

achieve desirable teaching outcomes (Dong & Xu, 2022). Nonetheless, further investigations on similar topics are needed to address some distinct research findings discussed previously.

#### CONCLUSIONS

This study explored the factors triggering technostress in EFL teachers, its effects, and the coping strategies employed, revealing the interrelationships among these elements. The technology overload, uncertainty, and the rapid pace of technological advancements heightened anxiety among EFL teachers, negatively impacting their teaching performance. Despite this, the teachers' proactive approach to finding solutions led them to employ a variety of coping strategies that effectively reduced their technostress. Interestingly, positive correlations were not observed across all variables, as coping strategies did not correlate with the technostress triggers and effects.

The study holds both theoretical and practical significance. Theoretically, it enhances the understanding of technostress by extending research into the EFL teaching context and providing insights for policymakers to optimize EFL teaching outcomes through appropriate policies. Practically, the findings offer readers effective coping strategies to mitigate technostress, suggest adaptable research methodologies and topics, and encourage the formation of collaborative networks to develop programs that promote technological proficiency among EFL teachers. However, further research in different contexts and with a larger sample size is needed to address the limitations of this study.

#### REFERENCES

- Blazar, D., & Kraft, M. A. (2017). Teacher and teaching effects on students' attitudes and behaviors. *Educational Evaluation and Policy Analysis, 39*(1), 146–170. https://doi.org/10.3102/0162373716670260
- Bull, A., Bradley, A., Kanyeredzi, A., Page, T., Shi, C. C., & Wilson, J. (2023). Professional boundaries between faculty/staff and students in UK higher education: Students' levels of comfort with personal and sexualised interactions. *Journal of Further and Higher Education*, 47(6), 1–16. https://doi.org/10.1080/0309877x.2023.2226612
- Cezar, B. G., & Maçada, A. C. G. (2021). Data literacy and the cognitive challenges of a data-rich business environment: An analysis of perceived data overload, technostress and their relationship to individual performance. *Aslib Journal of Information Management*, 73(5). https://doi.org/10.1108/ajim-01-2021-0015
- Daniel, E. (2016). The usefulness of qualitative and quantitative approaches and methods in researching problem-solving ability in science education curriculum. *Journal of Education and Practice*, 7(15), 91–100. https://iiste.org/Journals/index.php/JEP/article/view/30822
- Dong, Y., & Xu, J. (2022). The Role of EFL Teachers' optimism and commitment in their work engagement: A theoretical review. *Frontiers in Psychology*, 12, 1–5. <a href="https://doi.org/10.3389/fpsyg.2021.830402">https://doi.org/10.3389/fpsyg.2021.830402</a>
- Efilti, E., & Çoklar, A. N. (2019). Teachers 'technostress levels as an indicator of their psychological capital levels. *Universal Journal of Educational Research*, 7(2), 413–421. https://doi.org/10.13189/ujer.2019.070214
- Farmania, A., Elsah, R. D., & Fortunisa, A. (2022). The phenomenon of technostress during the covid-19 pandemic due to work from home in Indonesia. *Sustainability 2022, 14*(14), 8669. <a href="https://doi.org/10.3390/su14148669">https://doi.org/10.3390/su14148669</a>

Page 110

- Frenzel, A. C., Daniels, L., & Burić, I. (2021). Teacher emotions in the classroom and their implications for students. *Educational Psychologist*, 56(4), 250–264. http://dx.doi.org/10.1080/00461520.2021.1985501
- Gondwe, F. (2021). Technology professional development for teacher educators: A literature review and proposal for further research. SN Social Sciences, 1(8), 1-35. https://doi.org/10.1007/s43545-021-00184-9
- Gozali, I., Lie, A., & Tamah, S. M. (2023). Examining language teachers' change in TPACK-HOTS self-perception during the COVID-19 pandemic in Indonesia. *CALL-EJ*, *24*(1), 280-304. https://www.researchgate.net/publication/370755859
- Graham, C., Borup, J., Tuiloma, S., Martínez Arias, A., Parra Caicedo, D., & Larson, R. (2023). Institutional support for academic engagement in online and blended learning environments: Exploring affective, behavioral, and cognitive dimensions. *Online Learning*, 27(3), 4-40. https://doi.org/10.24059/olj.v27i3.4001
- Graziano, K. J. (2018). Preservice teachers' comfort levels with technology in an online standalone educational technology course. *Journal of Teaching and Learning with Technology, 7*(1), 70–86. https://doi.org/10.14434/jotlt.v7i1.23492
- Gugushvili, N., Täht, K., Rozgonjuk, D., Raudlam, M., Ruiter, R., & Verduyn, P. (2020). Two dimensions of problematic smartphone use mediate the relationship between fear of missing out and emotional well-being. *Cyberpsychology*, *14*(2). <a href="https://doi.org/10.5817/CP2020-2-3">https://doi.org/10.5817/CP2020-2-3</a>
- Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable Operations and Computers*, 3(May), 275–285. <a href="https://doi.org/10.1016/j.susoc.2022.05.004">https://doi.org/10.1016/j.susoc.2022.05.004</a>

- Hendartono, A., & Widilestari, C. (2022). Model hubungan technostress terhadap emotional exhaustion pada mahasiswa perguruan tinggi maritim selama pembelajaran online. *Jurnal Saintek Maritim*, 23(1), 1-14. https://www.academia.edu/113664417/
- Huang, J. (2022). The role of English as a foreign language teachers' mindfulness and compassion in fostering students' foreign language enjoyment. *Frontiers in Psychology*, 13. https://doi.org/10.3389/fpsyg.2022.899298
- Khlaif, Z. N., Sanmugam, M., Joma, A. I., Odeh, A., & Barham, K. (2022). Factors influencing Teacher's technostress experienced in using emerging technology: A qualitative study. *Technology, Knowledge and Learning*, 28(2). 865-899. <a href="https://doi.org/10.1007/s10758-022-09607-9">https://doi.org/10.1007/s10758-022-09607-9</a>
- Kim, D. G., & Lee, C. W. (2021). Exploring the roles of self-efficacy and technical support in the relationship between techno-stress and counter-productivity. *Sustainability,* 13(8), 1-16. <a href="https://doi.org/10.3390/su13084349">https://doi.org/10.3390/su13084349</a>
- Mokh, A. J. A., Shayeb, S. J., Badah, A., Ismail, I. A., Ahmed, Y., Dawoud, L. K. A., & Ayoub, H. E. (2021). Levels of technostress resulting from online learning among language teachers in Palestine during Covid-19 pandemic. *American Journal of Educational Research*, 9(5), 243–254. https://doi.org/10.12691/education-9-5-1
- Muslimin, A. I., & Cahyono, B. Y. (2023). Online learning readiness, motivation, and English learning achievement in higher education. *MEXTESOL*, 47(3), 1-14. <a href="https://www.mextesol.net/journal/index.php?page=journal&idarticle=46454">https://www.mextesol.net/journal/index.php?page=journal&idarticle=46454</a>
- Muslimin, A. I., Mukminatien, N., & Ivone, F. M. (2023). TPACK-SAMR digital literacy competence, technostress, and teaching performance: Correlational study among EFL lecturers. *Contemporary Educational Technology*, *15*(2), 1-15. https://doi.org/10.30935/cedtech/12921

- Nang, A. F. M., Maat, S. M., & Mahmud, M. S. (2022). Teacher technostress and coping mechanisms during COVID-19 pandemic: A systematic review. *Pegem Egitim ve Ogretim Dergisi*, 12(2), 200–212. https://doi.org/10.47750/pegegog.12.02.20
- Naylor, R., Bird, F. L., & Butler, N. E. (2021). Academic expectations among university students and staff: Addressing the role of psychological contracts and social norms. *Higher Education*, 82(5), 847–863. <a href="https://doi.org/10.1007/s10734-020-00668-2">https://doi.org/10.1007/s10734-020-00668-2</a>
- Panakaje, N., Ur Rahiman, H., Parvin, S. M. R., P, S., K, M., Yatheen, Y., & Irfana, S. (2024). Revolutionizing pedagogy: Navigating the integration of technology in higher education for teacher learning and performance enhancement. *Cogent Education*, 11(1), 21-36. https://doi.org/10.1080/2331186X.2024.2308430
- Schmidt, M., Frank, L., & Gimpel, H. (2021). How adolescents cope with technostress: A mixed-methods approach. *International Journal of Electronic Commerce*, 25(2), 154–180. https://doi.org/10.1080/10864415.2021.1887696
- Schober, P., Boer, C., & Schwarte, L. A. (2018). Correlation coefficients:

  Appropriate use and interpretation. *Anesthesia and Analgesia*, *126*(5),

  1768. https://doi.org/10.1213/ANE.000000000002864
- Schoonenboom, J., & Johnson, R. B. (2017). How to construct a mixed methods research design. *Köln Z Soziol*, 69(2), 107–131. https://doi.org/10.1007/s11577-017-0454-1
- Setyadi, H. J., Taruk, M., & Pakpahan, H. S. (2019). Analisis dampak penggunaan teknologi (technostress) kepada dosen dan staff karyawan yang berpengaruh terhadap kinerja di dalam organisasi (Studi kasus: perguruan tinggi di Kalimantan Timur). *Informatika Mulawarman,* 14(1), 1-14. <a href="https://e-journals.unmul.ac.id/index.php/JIM/article/view/1792">https://e-journals.unmul.ac.id/index.php/JIM/article/view/1792</a>

- Seymour, V. (2016). The human-nature relationship and its impact on health: A critical review. *Frontiers in Public Health*, 4, 1–12. https://doi.org/10.3389/FPUBH.2016.00260
- Shadiev, R., & Wang, X. (2022). A review of research on technology-supported language learning and 21st century skills. *Frontiers in Psychology*, 13(July), 1–19. https://doi.org/10.3389/fpsyg.2022.897689
- Smith, H. E., Stair, K. S., Blackburn, J. J., & Easley, M. (2018). Is there an app for that?: Describing smartphone availability and educational technology adoption level of Louisiana school based agricultural educators. *Journal of Agricultural Education*, 59(1), 238–254. https://doi.org/10.5032/jae.2018.01238
- Stark, K., Daulat, N., & King, S. (2022). A vision for teachers' emotional well-being. *Phi Delta Kappan, 103*(5), 24-30. https://doi.org/10.1177/00317217221079975
- Tapalova, O., & Zhiyenbayeva, N. (2022). Artificial intelligence in education: AIEd for personalized learning pathways. *The Electronic Journal of e-Learning, 20*(5), 639-653. http://dx.doi.org/10.34190/ejel.20.5.2597
- Tarafdar, M., Pullins, E. B., & Ragu-Nathan, T. S. (2015). Technostress: Negative effect on performance and possible mitigations. *Information Systems Journal*, 25(2), 103–132. <a href="https://doi.org/10.1111/isj.12042">https://doi.org/10.1111/isj.12042</a>
- Widiati, U., Suryati, N., & Hayati, N. (2018). Unraveling the challenges of Indonesian novice teachers of English. *Indonesian Journal of Applied Linguistics, 7*(3), 621-629. <a href="https://doi.org/10.17509/ijal.v7i3.9824">https://doi.org/10.17509/ijal.v7i3.9824</a>
- Wolff, J. (2021). How Is technology changing the world, and how should the world Change Technology? *Global Perspectives*, *2*(1), 1–5. <a href="https://doi.org/10.1525/gp.2021.27353">https://doi.org/10.1525/gp.2021.27353</a>