# TECHNOLOGY AND WELL-BEING: VOICES FROM ESP TEACHERS

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## ABSTRACT

Although research on the use of technology for teaching ESP has increased, there is still inadequate empirical evidence on how technology affects ESP teachers' well-being. This qualitative study aimed to investigate technology's impacts on ESP teachers' well-being. Data were collected through semi-structured, online interviews with six ESP teachers from different fields and institutions. Thematic analysis was conducted based on which data were categorized and coded. The findings suggest positive and negative impacts of technology on ESP teachers' well-being regarding work-life balance, the changing role of ESP teachers, and workload and task efficiency. Technology allows ESP teachers to work while having fun but can also interfere with a husband-wife relationship. It transforms teachers' roles from material developers to facilitators and promotes autonomous learning. It also makes the workload more manageable and more efficient to complete. However, the overuse of technology contributes to ESP teachers' stress levels as they must deal with challenges (digital fatigue, time management issues, scepticism about students' work authenticity, and overwhelmed feelings) and students' negative behaviors. Some strategies were employed to overcome the challenges. This study implies the need for strategic institutional support and adaptation to maximize the benefits and minimize technology use's negative impacts.

**Key Words:** ESP teachers, technology, well-being

### ABSTRAK

*Meskipun penelitian tentang penggunaan teknologi untuk pengajaran ESP telah meningkat, masih belum ada bukti empiris yang memadai tentang bagaimana teknologi memengaruhi kesejahteraan dosen ESP. Studi kualitatif ini ditujukan untuk mengungkap dampak teknologi terhadap kesejahteraan dosen ESP. Data dikumpulkan melalui wawancara daring semi-mendalam kepada enam dosen ESP dari berbagai bidang dan lembaga. Analisis tematik dilakukan berdasarkan data yang dikategorikan dan dikodekan. Temuan tersebut menunjukkan dampak positif dan negatif teknologi terhadap kesejahteraan dosen ESP terkait keseimbangan kehidupan kerja, perubahan peran dosen ESP, serta beban kerja dan efisiensi tugas. Teknologi memungkinkan dosen ESP bekerja sambil bersenang-senang; tetapi juga dapat mengganggu hubungan suami-istri. Teknologi mengubah peran dosen dari pengembang materi menjadi fasilitator dan mendorong pembelajaran mandiri. Teknologi juga membuat beban kerja lebih mudah dan lebih efisien untuk diselesaikan. Namun, penggunaan teknologi yang berlebihan berkontribusi terhadap tingkat stres dosen ESP karena mereka harus menghadapi tantangan (kelelahan digital, masalah manajemen waktu, skeptisisme tentang keaslian pekerjaan mahasiswa, dan perasaan kewalahan) serta perilaku negatif mahasiswa. Beberapa strategi diterapkan untuk mengatasi tantangan tersebut. Studi ini menyiratkan perlunya dukungan dan adaptasi kelembagaan strategis untuk memaksimalkan manfaat dan meminimalkan dampak negatif penggunaan teknologi.*

***Kata Kunci:*** *dosen ESP, kesejahteraan, teknologi*

## INTRODUCTION

Teaching for Specific Purposes (ESP) to non-English department students is significant because it provides them with the relevant and practical language they need in their studies and future careers. ESP teaches specific vocabulary and language functions in line with students' fields of study. For

example, English for Business teaches students how to do business correspondence, make a presentations, negotiate with business partners, and handle meetings. Not only does this position them better in comprehending the academic material, but it also instils confidence in the use of English in global, professional environments, which makes them even more competitive and competent in their fields.

It was evident that the development of technology has considerably assisted teaching. Many English language teaching has employed innovative technology (Fussell et al., 2022; Purnawarman & Sundayana, 2016; Widiaty et al., 2020; Wright, 2017). Concerning ESP, technology is an essential feature that enables ESP teachers to access resources relevant to real-world workplace requirements. They must adapt to the latest technological developments in teaching, such as developing materials, delivering lessons, and assessing students (Brown, 2021). Digital tools allow access to authentic resources related to students' fields, promote collaborative work, and develop the ability to learn autonomously. Incorporating digital tools related to students' future careers enables them to understand language and technology skills, grooming them to meet the modern-day job market demand.

Some studies found that ESP teachers are underprivileged (Qi et al., 2020; Stewart, 2018), and the status of ESP itself has also been marginalized in many institutions (Moslemi et al., 2011; Tao & Gao, 2018). For example, a study by Iswati and Triastuti (2021) reveals that ESP classes in non-English departments usually weigh fewer credits than other subjects. Many ESP teachers also do not get as many professional development opportunities as teachers of different subjects. This discrepancy can contribute to teachers' well-being. Now that technology has become an integral part of education by revolutionizing teaching and learning, it should help minimize the marginalization of ESP and ESP teachers, leading to better well-being.

In diverse teaching contexts, ESP teachers generally carry heavy workloads (Adi & Khotimah, 2018; Aguado de Cea & Curado Fuentes, 2012; Bhatia et al., 2011; Sukying et al., 2023). They should deal with many classes and master content-related knowledge. Focusing on ESP teachers' well-being is crucial because of the peculiar challenges they face in their duties compared with those who teach the general class. ESP teachers are supposed to handle specialized content, often updating materials when industrial needs change and caring for high expectations from learners. Their respective roles frequently imply juggling language and subject matter competence, which could result in significant stress and role ambiguity. Many of them also feel isolated in their work and pressured to integrate language skills with industry-specific soft skills in their teaching; this puts them at higher risk for burnout. Support of well-being would enhance personal resilience and increase the capacity for high-quality, relevant instruction that benefits student outcomes.

With educational technology's fast development and innovation in the last few years, technology has dramatically facilitated teaching and learning, as found in several studies (Djiwandono, 2019; Fussell et al., 2022; Hallur, 2016). Thus, teaching has become less burdensome as various platforms help minimize problems related to many classes, and many online teaching resources offer free access to teachers. Teaching load is associated with the extensive use of educational technology. Teachers teaching more classes use more educational technology (Kaqinari et al., 2021). Technology plays an essential role in teachers' well-being (Nguyen, 2022), as it helps teachers deliver lessons and conduct assessments, thus decreasing their workloads. In contrast, a study found that spending too much time on screen during online teaching negatively influences teachers' well-being (Kaban & Zehir, 2023). Like the two sides of a coin, on the one hand, technology helps teachers deal with their teaching and non-teaching loads, but on the other hand, it creates potential problems that can affect their well-being.

Seligman (2011) proposed five crucial well-being elements: positive emotions, engagement, meaning, relationship, and accomplishment (PERMA). Positive emotions are the experience of pleasure, gratitude, satisfaction, and other positive feelings. Engagement means being wholly immersed when doing an activity. Relationship indicates meaningful, positive connections with others. Meaning refers to having a purposeful life and feeling connected to something greater than oneself. Accomplishment denotes competence in achieving goals. According to Fredrickson (2013), positive emotions can improve cognitive processes, including augmented attentional breadth,

creativity, decision-making, and self-regulation. These emotions foster a more expansive and flexible way of thinking. A study by Goh et al. (2022) revealed that positive emotions promote accomplishment. Engagement constitutes a flow or in-depth involvement mainly aimed at motivating learners toward achieving a set goal or task (Derakhshan et al., 2022). This immersive experience creates a sense of accomplishment and mastery over the subject matter. Moreover, while encouraging learners to interact with one another, engagement allows for the practice and implementation that enhance learning through shared activities and discussions (Passey, 2021). Meaning is a crucial aspect of well-being. Language teachers make their jobs meaningful through job crafting, including changing tasks, relationships, and roles (Falout, J., & Murphey, 2018).

Furthermore, Falout, J., and Murphey (2018) maintained that teachers usually control their well-being to cope with professional challenges associated with their emotional well-being. Relationship refers to social and positive connections with others. Butler and Kern (2016) state that social relationships are essential for positive outcomes, such as improved physical health and beneficial behaviors. They meet fundamental human needs, including our desires for belonging, love, and social support (Seligman, 2011). These relationships bring emotional and psychological gains, finally leading to well-being and resilience. In addition, it is crucial to maintain a positive teacher-student relationship so that mutual respect and trust can be achieved (Mercer, S., Oberdorfer, P., & Saleem, 2016). A respectful and supportive teacher-student relationship is good for the learning atmosphere and contributes to students' further involvement in the learning process. This respect and trust create a sense of safety where learners can take academic risks freely without fear of judgment.

Accomplishment needs a continuous effort, but it can affect teacher commitment and help teachers maintain their satisfaction and motivation to a large degree (Mercer, S., Oberdorfer, P., & Saleem, 2016). When their goals are achieved, their motivation and commitment will increase, and thus, they will pursue a fulfilling and continuous teaching career. Seligman (2011) put forward that the achievability of a goal is solely dependent on the quality of grit and perseverance. Success requires an inner drive and tenacious, relentless, effortful striving. Without this quality, definite success is not possible.

The relationship between technology and well-being has been a topic of much research. It is barely surprising that many conceptualizations of well-being have emerged with such broad interest from diverse writers and fields (High et al., 2024). Furthermore, High et al. (2024) emphasized that numerous factors in one's life, including their dynamic relationship with technology, can affect their well-being. Through this, one experiences how he can connect with others and cope with everyday tasks, influencing the quality of life. This mutual effect between personal life factors and technology would influence mental and emotional health.

However, a contrasting view of the relationship between technology and well-being exists. Digital technology is neither negative nor positive in and of itself; however, one can be pretty sure of its influence on well-being due to the pervasive digitization of society and daily life (Büchi, 2024). This influence can be positive, through improved access to information and communication, or harmful, through increased screen time and all its effects. This means that, even if tech itself is neutral, it has come to bear on our well-being because of its heavy use and presence in our lives.

Integrating technology into teaching has been perceived to make teaching more manageable and more efficient. Nevertheless, the constant exposure to technology used in teaching can adversely affect teachers' well-being. It can lead to social, emotional, and physical exhaustion (Kaban & Zehir, 2023), techno-stress (Al-Fudail & Mellar, 2008; Fernández-Batanero et al., 2021; Navarro-Espinosa et al., 2021), and even burnout (Ramos et al., 2023). Hence, it is crucial to investigate ESP teachers' well-being concerning the use of technology in teaching (Passey, 2021). Although research in the use of technology for teaching ESP has increased, there is still inadequate empirical evidence that informs us on how technology affects ESP teachers' well-being. While research in that area primarily focused on the effectiveness of technology in facilitating ESP teaching and learning (Asmali, 2021; Enesi et al., 2021; Tsai, 2012), the effect of technology on ESP teachers' well-being is under-researched. Therefore, the current study is critical because ESP teachers' well-being can affect the quality of student achievement, teacher retention, and the reputation of ESP teachers as a whole (Granziera et al., 2023; Van der Vyver et al., 2020; Wang, 2015). The main objective of this study was to explore ESP teachers'

well-being in the technology age with two guiding research questions: How does the use of technology in teaching affect teachers' perception of their well-being and efficiency in doing their daily tasks? Furthermore, how does the use of technology in teaching affect ESP teachers' stress and information overload levels?

## METHODS
### Research design
This study employed a qualitative method to explore ESP teachers' well-being in the age of technology. This method was used because the qualitative approach offers flexibility in data collection through interviews. It allowed the researchers to explore the participants' experiences and probe into emerging themes. The method was selected to gain a deeper understanding of the research problems by exploring ESP teachers' personal and professional experiences concerning the use of technology and their well-being.

### Research site and participants
The study involved six ESP teachers from different fields with different teaching experience levels to investigate the research questions. Having six teachers in interviews can offer a diverse representation without being overwhelming, allowing for an in-depth look into the experiences and perspectives of each participant. The participants' various ESP fields were intentionally selected to explore the problems from different perspectives.

**Table 1** Participants of the study

| Participants | Gender | Age (years old) | Approximate length of ESP teaching (years) | ESP field | Approximate teaching hours/week | Province |
|---|---|---|---|---|---|---|
| HE | Female | 33 | 5 | Maritime English | 11-15 | Yogyakarta |
| NI | Female | 35 | 14 | English for Tourism & Hospitality | 6 | Bali |
| PN | Female | 34 | 4 | English for Mechanical Engineering | 16-20 | Kalimantan |
| RS | Female | 38 | 10 | English for Nursing | 11-15 | Yogyakarta |
| ND | Female | 36 | 5 | Business English | 11-15 | Yogyakarta |
| AR | Male | 42 | 10 | English for Aviation | 6-10 | Yogyakarta |

### Data collection and analysis
The data from the current study was collected through semi-in-depth interviews. There were six main questions used to collect the data in line with the research questions, as shown in the following table:

**Table 2** The interview questions

| Research Questions | Main interview questions |
|---|---|
| RQ 1: How does using technology in teaching affect ESP teachers' perception of their well-being and efficiency in daily tasks? | 1. How does integrating technology affect your workload and the efficiency of your daily tasks? 2. How does the advancement of online learning platforms affect your perception of your role as an ESP teacher? 3. How does digital technology affect your work-life balance? |

| RQ 2: How does using technology in teaching affect ESP teachers' stress and information overload levels? | 4. Does using educational technology make you feel overloaded with information or stressed? |
| | 5. Do you face particular challenges or anxiety related to using technology in teaching? |
| | 6. Do you experience digital/physical/emotional/mental fatigue when using technology in your profession? |

The data analysis of this study was adapted from Creswell (2012). Firstly, the transcribed data were read carefully, and themes were identified. After that, coding was done to categorize themes appropriately. The data were then interpreted. Then, debriefing was done to ensure the data validity. The procedure of data analysis is conducted based on the following figure:

Figure 1 The procedure of data analysis (Creswell, 2012)
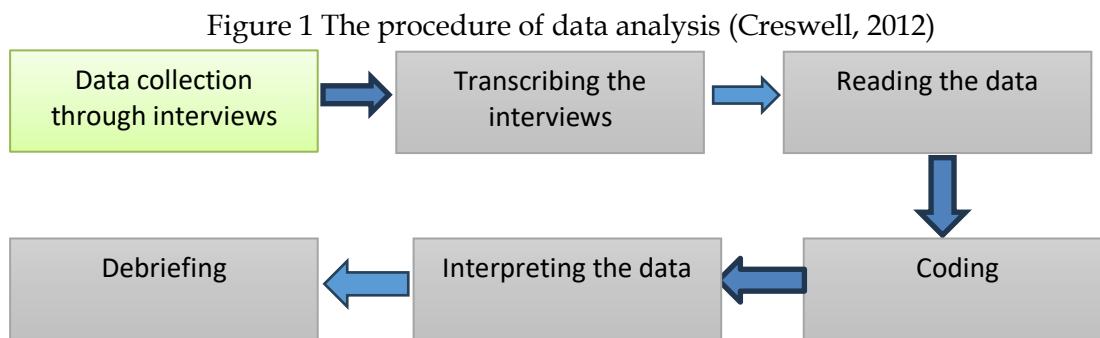


The interviews were conducted for about 30 minutes for each participant. The Indonesian language was used to create a more friendly atmosphere and avoid misunderstanding during the interviews. The interviews were conducted online through Zoom video conferencing based on the participants' agreement for practical and geographical reasons. The interview structure consisted of addressing introductory questions, going to the main interview questions, and concluding with wrap-up questions. Some minor problems emerged during the interviews, such as connection and technical issues, but they did not give serious hindrances. The recorded interviews were then transcribed. Member checking was done to ensure reliability by sharing the interpreted data and findings with the participants. This is to ensure that the interpreted data accurately represents their experience.

Thematic analysis of the data was performed in six phases (Braun & Clarke, 2006). First, we reread the interview transcript to familiarize ourselves with the data. Then, we generated initial codes by highlighting and labeling key feature(s) relevant to the research questions. We examined the initial codes and grouped them into broader themes. Next, the themes were reviewed to ensure their alignment with the coded data. The last step was writing the analysis to explain the themes and illustrate them with data extracts.

## FINDINGS AND DISCUSSION

To answer the research questions, the data taken from the interviews were categorized into codes, themes, and sub-themes. There are five principal codes: impact of technology integration, adaptation and strategies, challenges and concerns, teacher training and institutional support, and student engagement. Each code comprises themes (and sub-themes) as seen in the following table:

Table 3 The codes, themes, and sub-themes

| Codes | Sub-themes |
|---|---|
| Impact of technology integration (RQ 1) | ● Implications for work-life balance ( personal time; relationship) |
| | ● Changing roles of educators (from content providers to facilitators; promoting independent learning) |
| | ● Workload and task efficiency |

| Adaptation and strategies (RQ 1) | ● Emotional support<br>● Setting boundaries for work-life balance<br>● Integrating offline interaction<br>● Balancing traditional and online assessment<br>● Maintaining a positive learning atmosphere |
|---|---|
| Student engagement (RQ 1) | ● Personalized interactive learning<br>● Opportunities for engagement |
| Challenges and concerns (RQ 2) | ● Teachers' challenges (digital fatigue, time management issues, skepticism about students' work authenticity' feeling overwhelmed)<br>● Students' behavior and interaction (lack of interpersonal skills; reliance on digital platforms, passive communication) |
| Teacher training and institutional support (RQ 2) | ● Resources tailored to the specific needs<br>● To integrate technology into teaching and learning<br>● To improve digital literacy<br>● Infrastructure and financial support |

*Impacts of technology integration*

The use of technology in teaching has impacted ESP teachers' work-life balance. The immense use of various technological tools has interfered with their time and relationships. One participant claimed that technology has interfered with his relationship:

> *It can affect the husband-and-wife relationship. For example, we were committed to putting away our phones when eating out. When one of us broke the rule, the other did the same. Automatically,… fine. You broke the rule, and I did it too. Both ended up playing with the phone.* (AR_10)

This observation aligns with the finding of Currie & Eveline (2011), which reported that technology use has disrupted work-life balance. This is an implication that goes in two ways. It first implies that better strategies in managing professional and private life must be differentiated to ensure that technology positively contributes to well-being instead of negatively. Secondly, institutions having ESP teachers need to be aware of the pitfalls of technology and thus offer support/training to them on how to maintain appropriate boundaries between professional and private life. This would also improve multitasking and efficiency in their work performance because the more balanced and focused they are on their workload and their responsibilities, the better.

On the other hand, technology interferes with one's life positively as work can be done while enjoying personal time, as claimed by ND:

> *I use my laptop. I can do my professional job while having some entertainment – watching YouTube and scrolling. Watching YouTube is entertaining. I can also update news while using the other screen to correct students' work or develop materials. I can do that all at once . So, technology allows two things to be done at once.* (ND_10)

This contrasting perspective indicates the potential of utilizing technology for multitasking, which could achieve some work-life balance. This finding aligns with Jan et al. (2022), who suggested that technology helps teachers balance their work and personal lives. The impact of technology integration on work-life balance accentuates the double-edged sword of technology, which offers both benefits and drawbacks to teachers. This finding corroborates the findings in earlier studies (Gie et al., 2017; Lucas & Vicente, 2023), highlighting the contrasting roles of technology for teachers.

All these differing views of technology use between the ESP teachers reflect its dual effect on work-life balance: that is, on the one hand, technology may intrude on private time and relationships, leading to harmonious work-life unbalance, while on the other hand, ND says, it will help in multitasking such that one can blend the professional work with personal entertainment or leisure pursuits. In the same

manner, ND's laptop, used for a professional obligation and personal time, enables her to watch YouTube or update the news, which shows that technology allows for a more integrated way to manage responsibilities in work and life.

The use of technology has also resulted in the changing role of ESP teachers, from content providers to facilitators. It also promotes independent learning. One participant said, "*So we must be aware of our role as facilitators. We are their learning partners that help facilitate their learning. Learning is like that. We also act as a controller* (HE_4)". This finding supports the finding of Ideland (2021), who pointed out that the role of teachers is no longer as a knowledge carrier in this digital age. With the changing role of teachers from content providers to facilitators, teaching tasks are more efficient as online teaching resources can be shared with students. Thus, teachers do not have to develop materials. Furthermore, one participant admitted that technology helps teachers promote independent learning as students become more autonomous. This finding reflects that of Rintaningrum (2023), who also found that technology use in teaching has encouraged learners to be independent.

Using technology in teaching has also impacted ESP teachers' workload and task efficiency. All participants agree that technology has positively impacted their workload, making their tasks easier and more efficient. The other claimed, "*Technology helps me in doing my tasks in teaching, giving assignments, developing materials, and delivering lessons* (RI_1)." This finding broadly supports Biletska et al. (2021), who maintained that the use of digital technology has assisted teachers to a great extent in creating various tasks. Technology's positive effects on the amount of work and efficiency of functions for ESP teachers have several obvious pluses: it increases productivity, decreases time-consuming administrative work, and releases the mental load of the teacher for other assignments with students and innovative pedagogy. This allows for higher quality education with various methods of instruction, so an institution should invest in the equipment and training. As Biletska et al. (2021) suggested, strategic technology use greatly supports the teacher, which eases and augments the whole education process.

### Adaptation and strategies

ESP teachers employ some strategies to adapt to the development of technology. First, they need emotional support as sometimes others think teaching English using technology must be easy. Being looked down upon, HE claimed that she needs emotional support in using technology for teaching. She said, "*It's not that easy. We need emotional support. A change in mindset (of some colleagues) that teaching online is easy and that (they think) it's only about submitting assignments* (HE_13)."

This finding supports Spencer et al. (2018), which revealed the need for emotional support for teachers, especially early career teachers. The finding emphasizes the emotional difficulties that ESP teachers face when using new educational technology. Though people take it for granted that teaching with technology is easy, teachers like HE are put under much strain and need to be emotionally supported when they feel unappreciated by colleagues. This requirement can be linked to Spencer et al. (2018), who focuses on the role of emotional support for teachers, especially beginners. In other words, institutions must create an atmosphere conducive to teaching complex issues, such as how to intermingle modern technological devices into conventional instruction processes and provide the tools and emotional help required for coping with these transformations. This backup is necessary to sustain teachers' spirits and ensure the successful execution of educational innovations based on technology.

The second strategy is to set boundaries to ensure work-life balance. One participant mentioned how she kept her work and life in balance. She said, "*I try not to bring work home. No matter how much the work is. First, it's family time (when at home). Second, work and life must be balanced. We have office hours. (RI_12)*" This finding is in line with the finding of Kaban and Zehir (2023), which revealed that teachers usually spend time with their families after prolonged online interactions with students. The importance of setting boundaries for work-life balance is following Stephen et al. (2024). Delineating boundaries to maintain work-life balance underscores the significance of defending one's private time to prevent burnout and digital fatigue. HE's intense scheduling for student consultations and RI's dedication to family time are examples of the practical strategies teachers adopt to balance their work and personal lives. Such practices exemplify the need for educators to create distinct lines between

their jobs and personal lives, enhancing quality of life and continuous productivity.

Another strategy is to balance traditional and online assessments. Integrating offline and online classes and assessments is also done to minimize the side effects of technology use. One participant claimed that by combining offline and online evaluations, teachers will be less dependent on technology that can affect their health (to some extent) when it is overused. This finding is in accord with Aji and Basthomi (2022), which suggested combining online and offline assessments to ensure students' competence. Balancing traditional and online assessments aims to reduce the over-reliance on technology, thereby mitigating its potential negative health effects on teachers and students. Teachers can vary evaluation methods by incorporating offline assessments, promoting a more holistic approach to measuring student competence. This approach, as Aji and Basthomi (2022) urged, implies that a hybrid model not only safeguards physical and mental health but also enhances the reliability and comprehensiveness of student assessments. It encourages a balanced technology integration, fostering a more sustainable and effective educational environment.

Besides, maintaining a positive atmosphere during online classes is necessary for effective interaction, as HE admitted, "*We must build trust with them (students). I am their facilitator and their partner in learning. They will not be judged. We must build a rapport with them (HE_9)."* Meanwhile, ND claimed to create a positive atmosphere, "*I give them more games and short videos when interacting online (ND_9)."* This finding echoes a previous study (Casañ-Núñez, 2021), which maintained that creating a positive learning environment in online classes is critical. Maintaining a positive learning atmosphere in online courses is essential for fostering effective interaction and student engagement. HE emphasizes building trust and rapport, and ND's games and short videos highlight strategies to create a supportive and engaging online environment. This approach aligns with Casañ-Núñez (2021), which underscores the importance of a positive learning atmosphere for successful online education. By prioritizing trust, partnership, and interactive elements, educators can enhance student motivation, reduce anxiety, and improve learning outcomes in virtual settings.

### Student engagement

Technology also promotes student engagement through interactive and personalized learning. ND claimed that by utilizing an online learning platform, she can oversee each student's learning progress and give individual feedback, thus facilitating customized learning. She said that technology helps monitor each student's progress so that *engagement can be seen. We can oversee* (ND_6) ." Technology also stimulates engagement as the technology's innovation can be a medium to attract students' willingness to learn. As AR stated, "*Gen Z likes using digital technology. So, when we use digital technology in teaching, they will be engaged* (AR_6)."

Meanwhile, HE claimed student engagement occurred when students were involved in a task-stimulating competition through digital platforms. She claimed, "*Digital quiz, video uploads,… they (the students) felt stimulated to compete* (HE_6)." Student engagement promoted through technology is in line with the finding in Fussell et al. (2022), which pinpointed that using various technology tools in teaching increases student engagement. However, in contrast with this finding, Maimaiti et al. (2021) revealed that students demonstrated disengagement caused by various factors during online learning.

The present study's discoveries reveal how technology ambiguously affects learners' participation. From another perspective, learning technologies are personalized and convincing engagement tools that are competitive, interactive, and innovative, consistent with Fussell et al. (2022). For example, ND and AR talk about digital tools that monitor progress and speak to the preferences of Generation Z, while HE highlights the motivational component of digital competitions. However, according to Maimaiti et al. (2021), some factors led to student disengagement in online learning environments. From this perspective, they have discovered that technology can improve student engagement. However, it must be carefully implemented to address possible bottlenecks while ensuring every learner reaps maximum benefits from its presence.

### Challenges and concerns

Technology has brought not only benefits but also disadvantages. While it facilitates teaching and

assessment, it can also increase teachers' stress and information overload. The participants claimed to have experienced challenges such as digital fatigue, time management issues, scepticism about students' work authenticity, and feeling overwhelmed. Those issues increase their level of stress in addition to their teaching load and administrative work. As AR has witnessed, assessing students' work online can affect one's emotional and physical health. He mentioned how correcting students' work can change their mood. He said, "*When correcting is done online using a device – a mobile phone or a laptop. I become emotional, dizzy, easy to get dizzy. It affects my mood (AR_11).*" This finding corroborates previous studies pinpointing digital fatigue during online learning (Al Mulhim, 2023; Gregersen et al., 2023; Huang, 2023; Kaban & Zehir, 2023). AR's mood changes and dizziness while correcting online have been a good example of the emotional and physical toll that may result from digital assessment in teachers. That concurs with Gregersen et al. (2023), who urged that digital fatigue is common and may harm well-being. One participant claimed he had set a strict schedule for online consultations with the students to deal with this. Once they did not show up, they had to see him the following week. In line with this finding is the study undertaken by Li (2023), which highlighted how teachers mitigate digital burnout through self-efficacy, resilience, and emotion regulation. Another concern is students' work authenticity, as one participant expressed her scepticism:

*Sometimes, I feel sceptical. For example, I have facilitated their grammar learning when talking about past activities. When I asked them to make a postcard or a letter about their holiday, I questioned myself. Do they make it themselves? Or do they use Google Translate? Then I feel useless teaching them grammar and many things*" (HE_5)

Similarly, other participants seemed to be suspicious of students' submitted assignments. She said, "*We can't always trust them (students). We gave them assignments, and they used Chat GPT – copy and paste from that. It's that easy. (NI_8).*" Participants' scepticism points to the gigantic challenge in education regarding the authenticity of the student's work. This over-dependency on Google Translate and ChatGPT scares the teaching of essential skills, such as grammar. This means that the teachers may feel that their teaching efforts are futile since these gadgets will do most of the work for the students. More importantly, it begs the question of academic integrity and the immediate need for new strategies to ensure students learn and are assessed authentically.

Some participants also address concerns about students' behavior and interaction. One said, "*When meeting at Zoom, it's difficult (to ensure interaction). They easily turn off the cameras, and they don't care. Knowledge can be shared online, but not attitude (NI_7).*" Students' ethics also becomes a teacher's concern as HE said, "*Virtual communication is different (from face-to-face communication). They (students) are less ethical when communicating virtually (HE_7).*" Students also become passive participants during online classes, as AR claimed:

"*They tend to be reluctant to be active. They prefer to wait for information (from me) passively. What I am worried about is…there are things that students have said or done incorrectly during online classes.*" (AR_5).

These findings reflect those of earlier studies (Castelli & Sarvary, 2021; Dunaway & Macharia, 2021; Hussein et al., 2020; Krishnakumari et al., 2022; Lepp et al., 2019) which highlight various negative behaviors that students demonstrate during online learning. The concerns raised by participants about students' behavior and interaction during online learning reflect significant challenges in maintaining engagement, ethical communication, and active participation. The ease with which students can disengage by turning off cameras or relying passively on instructors for information undermines effective learning environments' interactive and participatory nature. Additionally, the perception of decreased ethical standards in virtual communication further complicates the teacher-student dynamic, potentially eroding respect and proper conduct. Students also rely on digital platforms when dealing with given tasks and assignments. ND said, "*Students depend on digital tools when doing their tasks (ND_7).*" This finding supports evidence from previous research (Ajlouni et al., 2023; Alhumaid, 2019; Carstens et al., 2021). The reliance on digital tools for

task completion while facilitating access to resources may also encourage dependency and reduce the development of independent problem-solving skills. The absence of face-to-face interaction, in which students could feel invisible and not directly overseen, might have triggered their tendency to be less well-behaved students. Therefore, it can be assumed that technology can erode ethics and manners.

### Teacher training and institutional support

The participants admitted they need institutional support and teacher training to address the challenges and concerns. They need resources tailored to their needs to integrate technology into teaching and learning and improve their digital literacy. The support provided by the institutions is expected to decrease their stress level. One participant, PN, said:

> "Teachers have limited literacy and experience using (certain) technology for teaching. We learn in two or three hours and are still confused. Moreover, those who get no training will be confused when faced with many features (of a certain platform)" (PN_16).

Similarly, AR said, "*For ESP teachers, at least we should be given training related to our fields, for example, my field, aviation* (AR_15)." Participants reported their need for institutional support in combination with targeted teacher training to solve technological issues and increase their digital literacy. Limited experience with technology creates confusion and increased stress in cases when the training was introductory. Institutional support is predicted to help avoid these shortcomings using specially designed materials and complete training. This coincides with the conclusions made in earlier research (Muliani et al., 2024; Winter et al., 2021), claiming the level of training and support for teachers. The need for training in using technology to support teaching is also found in a study undertaken by Citriadin and Hakim (2021). In addition to training, the teachers also expressed the lack of reliable Internet connection to support their teaching.

> My campus is not supportive at all. It should have provided reliable Internet connections and financial support. We must subscribe to AI, which can help us teach or prepare materials (RI_12).

The participants identified various lapses in institutional support, including offering reliable internet connections, financial support, and needed technological facilities. They believed campuses should be able to provide strong internet connections and devices fundamental to teaching online. This finding echoes the findings of Chirwa (2018), who pinpointed the lack of reliable internet connections to support teaching. In addition, the participants emphasized a need for financial support for AI subscriptions that aid teaching and material preparation. Again, this shows the need for full institutional support to enhance the quality of education by incorporating technology, as found in an earlier study (Almpanis, 2015).

## CONCLUSIONS AND SUGGESTION

This study set out to investigate the impacts of technology on ESP teachers' well-being. Regarding research question 1, it was found that integrating technology into teaching has positively and negatively impacted ESP teachers' perceptions of their well-being and efficiency. The impacts include their work-life balance, changing roles, and workload and task efficiency. Concerning research question 2, it was revealed that technology in teaching has led to challenges and opportunities, significantly influencing teachers' stress levels and experiences of information overload. It brought challenges to teachers, such as digital fatigue, time management issues, and scepticism of students' work authenticity. Some students' behaviors presented challenges, like a lack of interpersonal skills and a tendency to become passive during online interactions. However, opportunities also emerged as technology facilitated autonomous learning, increased student engagement, and encouraged institutional support and teacher training.

The research's merit lies in its holistic attempt to understand all aspects of technology's effect on ESP teaching. It underlines the critical need for targeted teacher education and strong institutional

support for ESP teachers to navigate the complexities of technological change. These findings offer practical recommendations for educators and policymakers seeking to maximize technology integration within educational settings.

Future research could involve more prominent, more diverse samples to ensure the validation and generalization of these findings across varying educational contexts. In this regard, detailed studies on strategies to manage digital fatigue, enhance student engagement, and guarantee the upkeep of academic integrity in the digital age would be beneficial. Controls may also be conducted in the case of a long-term impact of technology use on teacher well-being and professional efficacy to get a deeper understanding of its impact in a dynamic sense.

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