

How GenAI Impacts Technostress Among Secondary School English Teachers

Lucas Kohnke*

The Education University of Hong Kong, Hong Kong SAR

Abstract

Technostress among educators, exacerbated by the rapid integration of GenAI tools like ChatGPT, poses significant challenges. This qualitative study explores the perceptions and experiences of 14 secondary English teachers in Hong Kong regarding technostress induced by GenAI. Using reflective journals and semi-structured interviews, we identified themes of inadequate training, unrealistic expectations, and emotional impacts like anxiety and burnout. Our findings underscore the need for comprehensive training programs, transparent policies, and targeted support to mitigate technostress and facilitate effective GenAI integration.

Keywords: GenAI, Technostress, Secondary school, English, Teachers

Introduction

Technostress has been recognised as a significant issue among educators. It includes adverse reactions to the rapid introduction or constant use of new technology (Brod, 1983; Tarafdar et al., 2011, 2019, 2020), manifesting as depression, concentration problems, decreased job satisfaction, or worsened performance (Jena, 2015; Salo et al., 2019). Though GenAI tools, such as ChatGPT, offer many potential benefits for education (Kohnke et al., 2023a), their integration may also exacerbate technostress among teachers.

For example, their rapid adoption requires English teachers to update their pedagogical and technological skills. This can overwhelm many teachers, especially those unfamiliar with the nuances of AI (Hodges &

*Corresponding Author E-mail: lmakohnke@eduhk.hk

Ocak, 2023; Kohnke et al., 2023b; Kohnke et al., 2024). Though technostress has been studied extensively, its specific impact on secondary English teachers using GenAI has not been thoroughly explored (Dong et al., 2020; Joo et al., 2016; Özgür, 2020). Moreover, the relationship between teaching tasks, such as creating materials, designing tasks, and assessment, and the use of GenAI tools warrants further investigation.

This study explores the perceptions and experiences of 14 secondary school English teachers concerning technostress induced by GenAI tools. It is guided by interpretivism, which posits that knowledge and truth are constructed through experience (Creswell, 2008).

Methodology

Participants

This qualitative study included 14 secondary school English language teachers in Hong Kong who volunteered to participate. The methodology was selected to explore teachers' subjective experiences and perceptions of technostress in using GenAI. The participants comprised of nine females and five males, aged 29–43, who were assigned codes (e.g., T1, T2) to protect privacy.

Data Collection and Analysis

We utilised a two-phase approach. First, the participants completed reflective journals about their experiences (Dunlap, 2006). Then, they participated in semi-structured interviews that explored emergent themes in greater depth (Creswell, 2008). Both datasets were analysed thematically using the six-step process proposed by Braun and Clarke (2006).

Results

We have organised the findings into three main themes that emerged from the data (see Table 1). All quotes are presented verbatim.

Theme 1: Challenges of GenAI Integration

The data analysis revealed several critical factors that contribute to technostress.

Sub-theme 1A: Inadequate Training

One primary issue was the lack of adequate training about GenAI tools. This was mentioned by 10 participants, highlighting the need for targeted professional development. T2 explained, “The training was too generic and brief,

Table 1. Summary of themes and sub-themes

RQ 1: What challenges of integrating GenAI tools contribute to technostress?	Theme 1: Challenges of GenAI integration	Sub-theme 1A: Inadequate training Sub-theme 1B: Unrealistic expectations
RQ2: How does technostress impact teachers emotionally, and how can its effects be alleviated?	Theme 2: Emotional impact of technostress Theme 3: Suggestions for improvement	Sub-theme 2A: Anxiety and stress Sub-theme 2B: Increased workload Sub-theme 3A: Comprehensive training programmes Sub-theme 3B: Clear, practical policies

leaving me scrambling to understand how to use these tools effectively.” T6 added, “I wish the training focused more on practical applications in our subjects.” T7 emphasised, “The training should be ongoing, not just a one-time event, as these tools keep evolving.”

Sub-theme 1B: Unrealistic Expectations

The teachers felt pressured by administrators, parents and students to integrate GenAI tools without adequate support. T4 remarked, “The introduction of AI tools felt like another mountain to climb.” T1 echoed this sentiment: “There’s this assumption that because we’re young, we can easily adapt to any new tech.” T11 shared, “I often feel like I’m drowning in the expectations to use these AI tools effectively.”

Theme 2: Emotional Impact of Technostress

Participants expressed feelings of anxiety, stress and burnout in their interviews.

Sub-theme 2A: Anxiety and Stress

The aforementioned issues have had a clear emotional impact on the teachers. T1 stated, “The lack of clear guidelines and instructions on using these tools is a major source of stress.” T10 confessed, “I’ve had moments where I felt useless because of the stress and pressure.”

Sub-theme 2B: Increased Workload

The extra work required to implement GenAI, often driven by external expectations, has led to feelings of burnout and exhaustion. T5 expressed, “The pressure to keep up with the latest AI [tech] while planning my lessons is

overwhelming.” T9 added, “I feel like I’m constantly playing catch-up, and it’s taking a toll on my mental health.”

Theme 3: Suggestions for Improvement

Participants emphasised the need for targeted interventions and supportive structures.

Sub-theme 3A: Comprehensive Training Programmes

Unsatisfied with their training, the teachers wanted more sophisticated sessions. T3 stated, “We need more hands-on practical training that goes beyond the basics.”

Sub-theme 3B: Clear, Practical Policies

The teachers also advocated for clear rules and guidelines. T8 stated, “Having a set of well-defined policies on how to use AI tools in the classroom would help alleviate much of the uncertainty and stress.” T12 added, “Regular check-in and support from panel heads and administration specifically related to GenAI implementation would impact stress management.”

Discussion and Conclusion

This study shows the significant challenges that secondary school English teachers face when integrating GenAI tools into their teaching practice. Our results align with the Technostress Creators Framework (Ragu-Nathan et al., 2008) and highlight the multifaceted nature of technostress. Insufficient training, ambiguous policies and unrealistic expectations emerged as primary stressors, contributing to feelings of anxiety and burnout.

These findings have important implications for schools and teacher training institutions. They should develop comprehensive, subject-specific training programmes and clear guidelines for using AI tools (Hodges & Ocak, 2023; Moorhouse & Kohnke, 2024). However, it is crucial to be mindful of teachers’ workload when designing these programmes. Integrating GenAI training into existing professional development structures can help teachers navigate the rapidly evolving GenAI landscape and avoid technostress without overburdening them. Additionally, the emotional impact of technostress should be addressed via targeted support and initiatives that focus on reducing anxiety and burnout (Salo et al., 2019; Tarafdar et al., 2019). Future research should explore how effectively specific interventions reduce technostress and facilitate the smooth integration of GenAI.

In conclusion, this study contributes to the body of research on technostress in education by highlighting the challenges faced by secondary school English teachers who use GenAI. The findings emphasise the need for targeted interventions, comprehensive training and clear policies to support teachers and alleviate the negative emotional impact of technostress.

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