Internet Self–Efficacy and Task Strategies of EFL Students Teachers within Online Learning Setting

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A B S T R A K

Pembelajaran bahasa Inggris daring membutuhkan kemampuan individu untuk menggunakan perangkat teknologi dan internet dengan bijak serta strategi yang tepat. Pembelajaran berbantuan teknologi tidak hanya tentang mengetahui cara mengoperasikan teknologi secara teknis, tetapi juga menggunakan teknologi untuk tujuan pembelajaran. Berdasarkan masalah tersebut, penelitian ini bertujuan untuk mengevaluasi efikasi diri internet dan strategi tugas dari mahasiswa calon guru Bahasa Inggris sebagai Bahasa Asing (EFL) dalam lingkungan pembelajaran daring. Enam peserta, yang mewakili mahasiswa calon guru tahun ketiga dari jurusan pendidikan Bahasa Inggris di sebuah universitas negeri di Indonesia, ikut serta dalam sesi wawancara dan membagikan jurnal reflektif mereka. Peserta ini aktif terlibat dalam pembelajaran daring dan telah terpapar pengetahuan pedagogis, teknologi, dan bahasa Inggris selama satu semester. Data dianalisis menggunakan analisis tematik, dengan pendekatan deskriptif kualitatif untuk menyelidiki persepsi mahasiswa calon guru tentang kelas bahasa Inggris daring yang telah mereka alami secara mendalam dan komprehensif. Temuan mengungkapkan bahwa efikasi diri internet mendorong mahasiswa calon guru EFL untuk menggunakan internet untuk tujuan pembelajaran, termasuk berbagi dan kolaborasi, membangun hubungan dan keterampilan komunikasi, serta peningkatan dan pembelajaran aktif. Selain itu, strategi tugas mereka diidentifikasi dalam hal pemecahan masalah berbantuan teknologi teknologi, manajemen portofolio digital dan sumber belajar, pengendalian diri, dan kolaborasi yang bermakna. Dengan demikian, efikasi diri internet dan strategi tugas adalah kunci untuk menciptakan lingkungan pembelajaran yang efektif. Temuan ini memiliki implikasi pedagogis, yang menyarankan agar siswa dan guru melihat perangkat teknologi dan internet sebagai alat yang harus digunakan secara strategis untuk mencapai tujuan pembelajaran, terutama dalam konteks pembelajaran bahasa Inggris daring.

A B S T R A C T

Online English learning needs individual' capability to use technology devices and internet wisely and strategy properly. Technology assisted learning is not only about knowing how to operate technology technically, but also to use technology for learning purposes. Due to the problem, this study was aimed to evaluate the internet self-efficacy and task strategies of English as a Foreign Language (EFL) student teachers in an online learning environment. Six participants, representing the third year student teachers from the English education department at a public university in Indonesia, took part in the interview sessions and shared reflective journals. These participants were actively involved in online learning and had been exposed to pedagogical, technological, and English language knowledge for one semester. The data were analysed using thematic analysis, following a qualitative descriptive approach in order to investigate student teachers' perception on the English online class they had experienced deeply and comprehensively. The findings reveal that internet self-efficacy drives EFL student teachers to use the internet for learning purposes, including sharing and collaboration, building relationship and communication skill, and learning enhancement and enactive learning. Additionally, their task strategies are identified in terms of technology assisted problem solving, digital portfolio and learning resources management, self-control, and meaningful collaboration. Thus, internet self-efficacy and task strategies are the keys to creating effective learning environment. These findings have pedagogical implications, suggesting that learners and teachers should view technology devices as tools to be used strategically to achieve learning objectives, especially in an online English learning context.

1. INTRODUCTION

Online learning requires a comprehensive arrangement to ensure its effectiveness. Technological infrastructure is a key aspect, where a stable internet connection and adequate devices such as computers or tablets are essential (Blumberg & Fisch, 2013; Raes et al., 2020). The learning platform chosen must support learning activities well, such as Google Classroom or Zoom. Instructional design is also crucial, with learning materials specifically designed for online formats and adaptive learning methods, such as flipped classroom or blended

learning (Kurniawan & Purnomo, 2020; Oktaria & Rahmayadevi, 2021). Learning evaluation must adapt to the online format through online quizzes and project assignments. Interaction and engagement between teachers and students need to be maintained through effective communication and collaboration between students. The use of gamification and interactive content can increase student motivation (Gharti, 2019; Kivunja, 2014). Support and training, both technical and emotional, must be provided for students and teachers. Clear school policies regarding attendance, participation, and assessment in online learning are essential, as are privacy protection and data security (Andarwulan et al., 2021; Subandowo et al., 2020). Time management and self-regulation skills are key to the success of online learning, with students taught to manage their learning time independently. Regular evaluation of learning effectiveness and constructive feedback help in continuous improvement (Musliha & Revita, 2021; Potter & Thai, 2019). Finally, the well-being of students and teachers must be considered, with a balanced schedule and encouragement to do physical activity to maintain health. Thus, a good online learning arrangement will provide optimal results for all parties involved (Gill, 2020; Shahroom & Hussin, 2018).

In the realm of online English learning, the ability to use technology devices and the internet wisely and strategically is crucial. Technology-assisted learning encompasses not only the technical operation of technology but also its application for learning purposes. Given this challenge, it is essential to evaluate the internet self-efficacy and task strategies of English as a Foreign Language (EFL) student teachers in an online learning environment (Cookson & Stirk, 2019; Parvathamma & Pattar, 2013). Several studies have acknowledged that technology acceptance is essential for language learners to exhibit internet self-efficacy and utilize task strategies in their learning when engaging in an online learning environment (Dinh & Nguyen, 2022; Supriyono et al., 2024; Yeh et al., 2019; Zhou & Wei, 2018). These are especially pertinent for EFL student teachers, who must not only develop their language proficiency but also acquire the skills to navigate and utilize digital resources efficiently (Anhusadar, 2016; Cabrera-Solano, 2020). Research has shown that learners with high internet self-efficacy have greater opportunities for enhancing collaboration and communication (Beltran et al., 2020), learning experiences (Aldowah et al., 2017), and supporting self-evaluation (Iemtom, 2019; Tzeng et al., 2022). Meanwhile, online learning also encourages learners to regulate their learning by demonstrating task strategies for example, planning, managing and controlling their learning (Kizilcec et al., 2017), collaboration (Sobko et al., 2020), and problem solving (Heliawati et al., 2021) which is ultimately to achieve better academic (Kaymak & Horzum, 2022). The rapid advancement of technology and the widespread availability of the internet have revolutionized educational practices, particularly in the realm of language learning (Cong-Lem, 2018; Friday & Japhet, 2020). Preliminary studies in the field of language learning have investigated self-regulation skill (e.g., task strategies) mediated by technologies, such as in reading (Qiao et al., 2022), writing (Ducasse & Hill, 2019; Kessler, 2020; Wei, 2023), speaking (Menggo et al., 2022), grammar learning (Wang et al., 2021), and vocabulary learning (Kizilcec et al., 2017; Lei et al., 2022; F. L. Wang et al., 2021). A number of studies have shown that technology-enhanced learning environments can provide technological affordances for improving language learning outcomes and fostering skills how to regulate their learning (Hromalik & Koszalka, 2018; Shyr & Chen, 2018; Woottipong, 2022).

Considering previous research findings, less of attention of studies focusing on evaluating the internet self-efficacy and task strategies in online EFL setting with depth investigation qualitatively. Several studies discussed separately in quantitative analyses. For examples, studies focus on internet self-efficacy (Dinh & Nguyen, 2022; Paul & Glassman, 2017) and task strategies (Kessler, 2020; Yeh et al., 2019; Zhou & Wei, 2018) not in the context of online English learning. Task strategy is a structured approach used to complete tasks effectively and efficiently. A crucial first step is to set clear and specific goals, using the SMART (Specific, Measurable, Achievable, Relevant, Time-bound) principle. Once goals are set, planning and organization become essential, including creating a schedule, prioritizing, and having all necessary materials or information available before starting the task (Hyppönen et al., 2019; Lyon et al., 2021). Time management is also a key element, with techniques such as Pomodoro, grouping similar tasks, and using time management tools all contributing to increased productivity. Using the right tools and technology, such as project management software and online collaboration tools, can help complete tasks more efficiently (Cookson & Stirk, 2019; C.-H. Wang et al., 2022).

The ability to problem-solve and make effective decisions is an integral part of task strategy, which involves identifying potential problems, evaluating options, and selecting the best solution. Developing skills relevant to the task at hand is also important, through formal training, self-directed learning, or mentoring (Fakhriyah, 2014; Ngang et al., 2014). Additionally, collaborating with coworkers or team members and delegating tasks can improve efficiency and quality of work output. Evaluation and feedback after completing a task allows for areas of improvement and adjustments to be identified for future tasks. Finally, adaptability and flexibility in the face of change or obstacles are essential parts of a task strategy, allowing for adjustments to plans when necessary and remaining focused on the end goal (Boud & Dawson, 2021; Chen & Chuang, 2021). With effective implementation of a task strategy, individuals and teams can improve their productivity, efficiency, and the quality of their work output.

Due to the lack of attention, then the present study aims to analyze the EFL student teachers' perception on internet self-efficacy and task strategies within online learning environment since they are very crucial

variables, as it can significantly impact the overall effectiveness of the learning process. By evaluating these factors qualitatively, we seek to understand how they influence academic performance and engagement, and identify potential areas for intervention and support. The novelty of this research provide valuable insights for educators, policymakers, and instructional designers to enhance the online learning experiences of EFL student teachers, supporting their professional development and success in the digital age.

2. METHOD

A qualitative descriptive study was conducted to evaluate the internet self-efficacy and task strategies of EFL student teachers within an online learning setting (Avant & Gillespie, 2019). The qualitative approach was selected to provide an in-depth, contextual understanding of the participants' experiences, perceptions, and behaviors related to their use of the internet for learning purposes and the task strategies they employed in their English learning. Six third-year EFL student teachers from the English education department of a public university in Indonesia were selected to participate in this study. They took part in interview sessions and shared their reflective journals. These participants were chosen because they were actively involved in online learning and had been exposed to pedagogical and technological knowledge, as well as English language knowledge for one semester. Interview questions were developed based on the technology acceptance model and self-regulated learning theories to explore EFL student teachers' perceptions of internet self-efficacy and task strategies in an online learning environment. These questions were validated by two experts in English Language Teaching (ELT). For example, questions included: What are the benefits of using the internet to support your learning? and What strategies do you use to solve your learning problems? In addition, reflective journals were collected for document analysis.

The data obtained were meticulously analyzed utilizing thematic analysis. This process entailed the systematic generation of codes followed by the identification of overarching themes. By employing these rigorous analytical techniques, the study ensured comprehensive coverage and depth, leading to data saturation. This thorough approach to data collection and analysis guarantees that the findings are both robust and reliable, reflecting the richness and complexity of the studied phenomena.

3. RESULT AND DISCUSSION

Result

In the context of English language learning, internet self-efficacy refers to an individual's capability to proficiently utilize the internet for learning English. Analyses of reflective journals and interview results from the six participants revealed varied responses across different aspects, as follows.

Sharing and Collaboration

Interviews revealed that participants viewed the internet as a beneficial tool for sharing and collaboration. As stated online learning encourages me to use internet to share my work to my classmate and receive a feedback from them. Internet also facilitates me to collaborate with others to accomplish English tasks. Internet make collaboration online due to my work. So I can accomplish task on time. Other participants shared similar perceptions, emphasizing that using technology for collaboration, like Google Docs allowed them to share and collaborate on tasks effectively. The interview results align with the reflective journals, indicating that they used the internet for sharing and collaboration.

Building Relationship and Communication Skill

Based on the interview data, the internet self-efficacy facilitates building relationships and communication skills. The internet enables them to connect with others and develop both their written and oral communication skills. As stated by informant internet really helps get connected with others, even a friend abroad and build relationship and share experiences about our own culture and knowledge. We chat and make a call just to greet him or ask what's new today. Building relationship with somebody abroad and share knowledge is very interesting. This relationship build my communication skill. As an English student, of course, I need foreign friends, so I can practice my speaking. I believe through relation with them my communication skill will get better. These interview responses are corroborated by their journals, which indicate that online learning has heightened their social awareness and language skills as state by informant, online learning inspires me to have international friends. Since the task in week 4 is interviewing a foreigner. I can practice my language and build relationship. I think this is the positive side of online learning by which I was encouraged to connect somebody abroad.

Learning Enhancement and Enactive learning

Learning enhancement refers to a process of making learning more efficient, effective, and engaging. According to the analyses results, internet self-efficacy encourages language learners to utilize the internet, supported by technological devices, social media, websites, applications, and English programs, in their learning experiences. As informant state through internet, I can learn my English every time and anywhere. And this really supports me to learn English in a flexible time. Using smartphone which is connected to internet, I can practice my English through some applications such as Grammarly, Chat GPT or learn listening from IELTS program in YouTube. Meanwhile, the reflective journal data confirmed that participants utilize technology such as to enhance and assess their learning. As informant state artificial intelligence is powerful I learn by myself, how good my writing is. Through Quillbot I can monitor my own writing skill. I understand how to paraphrase and find proper words and write paragraph with correct grammar. The participants' journals also indicated that utilizing artificial intelligence helps them monitor their knowledge and achieve higher levels of English proficiency.

Task Strategies in English Language Learning

Task strategies in English language learning refers to learning strategies demonstrated by learners to succeed their online English learning such as technology assissted problem solving, digital portfolio and learning resources management, self-control, and meaningful collaboration. Participants considered the use of technology increasingly important since online learning occurs. They believe that technology, including the use of artificial intelligence, can address and solve their learning problem. As state by informant, once you have internet access, then it will be easily for you to use Artificial Intelligence (AI) that will assist your learning. Since many tasks in online learning, then I use AI to help me work my article review. Your learning will be more efficient and effective. The artificial intelligence helps me in doing teaching preparation, such as: lesson plan design, material development, and assessment. However, authenticating is still needed to make sure, the result meets my idea.

Digital Portfolio and Learning Resources Management

Digital portfolio and learning resources management involves organizing learning materials and artefacts in digital storage for self-monitoring and evaluation. They are, therefore, encouraged to store their files and data securely in cloud storage services and to leverage LMS to monitor and evaluate their learning progress. As state by informant "once I have good articles, I save them to my online fail folder named Google Drive or Dropbox. And it is easy to retrieve whenever or wherever you are. We just have internet access then the fails you need easily attained." "LMS provides things we need, materials, discussion, result of assessment, Journals. These things make me easily to evaluate my learning since I can retrieve my recorded learning result." Reflective journal data indicate that participants share the same perception of using cloud storage services, where all materials and learning artefacts are saved. For instance, "Fortunately, I always save my test result and materials to my Google drive, So, I can monitor my scores by comparing the final test and the mid-test and access the materials when needed." "It is easy for me to find materials or recall my online test result since everything of my course uploaded to my cloud storage."

Self-Control

According to interview results, some participants believe that online learning necessitates high motivation and cognitive strategies to maintain emotional stability in their learning process. As state by informant "During online course, many tasks should be accomplished on time. This sometimes makes me crazy. So I manage my emotion, set learning goals and believe to myself I can handle my learning problem successfully." and supported by other informant "Online learning demands high learning motivation. Due to abundance of tasks provided in every single-week meeting, sometimes it ruins my emotion. So, to face this condition, I manage my time and make priority to my learning." Reflective journal entries validate that participants developed skills to handle positive emotions by employing cognitive and motivational strategies related to task deadlines. These strategies encompass time management and prioritizing learning tasks, fostering positive thoughts, and setting goals.

Meaningful Collaboration

Meaningful collaboration emerges as participants recognize that online learning requires high motivation due to numerous tasks and deadlines. As state by informant "Mostly, online learning implements project based learning method which demands high spirit of learning due to many tasks given my lecturers. To anticipate this problem, we do collaboration and sharing works with other classmate and discussing together until the task can be done completely on time." Reflective journal analysis confirmed that the participants also claimed online learning opens their minds that learning needs collaboration to solve learning problem. As state by informant "In this twelve week, we are given a task of making mini research. The lecturer said we are allowed to collaborate but the output should represent individually. Due to this task, by using zoom, we shared ideas about what issues for our titles and make timeline for the steps we are going to do. Everybody show their responsibility and respect for any ideas."

Discussion

This study presents significant insights into the role of internet self-efficacy and task strategies among EFL student teachers in an online learning environment. Focusing on six participants from a public university in Indonesia, the research offers a qualitative understanding of how these future educators navigate and utilize digital tools in their teaching practices. Internet self-efficacy, which refers to an individual's belief in their ability to perform tasks successfully on the internet, emerged as a critical factor for the participants' learning. The results from interviews and reflective journal analyses show that the participants reported their internet self-efficacy in their online learning experiences. For instance, P2 and P6 noted that using LMS and Google Docs enabled them to share and work collaboratively on writing tasks. Furthermore, technology and the internet significantly enhanced their learning, particularly in writing skills, and improved their self-assessment abilities through the use of artificial intelligence (AI). This aligns with previous research indicating that internet self-efficacy encourages learners to use the internet confidently for various educational purposes, fostering an interactive and collaborative learning environment (Beltran et al., 2020), enhancing language skills (Aldowah et al., 2017; Ivone et al., 2020; Umamah & Cahyono, 2022; Yaniafari & Rihardini, 2021), and supporting self-evaluation (Iemtom, 2019; Tzeng et al., 2022). Additionally, P1 and P3 reported that internet self-efficacy helped them build relationships and communication, as the tasks required them to connect with new friends abroad, with whom they could share knowledge and culture. This supports the finding that online learning encourages relationship-building and communication, as learners must connect and build social relationships through informal communication (Williams & Corwith, 2021).

The study also highlights the diverse task strategies employed by the EFL student teachers, which include technology-assisted problem solving, digital portfolio and learning resources management, self-control, and meaningful collaboration. These strategies reflect a proactive approach to managing online learning, aligning with findings from studies on self-regulated learning (Freire et al., 2020; Zheng et al., 2018). The participants effectively integrated various technological tools to facilitate their learning processes. For example, P1 and P2 reported using AI to solve learning tasks, such as designing lesson plans, assessments, and developing materials. They also found technology helpful in completing article reviews and research. This supports studies that indicate technology-mediated language learning encourages learners to leverage tools like AI, learning applications, websites, and e-learning platforms to enrich their learning experiences and effectively tackle language skill challenges such as writing, listening (Anugerahwati, 2023; Ivone et al., 2020; Marzuki et al., 2023; Setyowati et al., 2022). Using digital portfolios and online learning resources allowed participants to organize and reflect on their learning progress. P3, P4, and P5 reported using cloud storage services to compile learning artifacts and LMS to monitor their learning progress. This strategy not only helps track academic achievements but also promotes continuous self-assessment and improvement (Cabrera-Solano, 2020; Mohamad et al., 2020). P1 and P3 demonstrated self-control strategies such as managing time, setting goals, prioritizing learning, and fostering self-motivation, which are crucial for online learning. This finding addresses a study stating that managing time, setting goals, and maintaining focus are key self-control strategies needed for successful online learning (Xiaotao Wang, 2024). Additionally, P2 and P3 employed collaboration and discussion to tackle challenging tasks, such as mini-research projects, which required qualities like respect, open-mindedness, and responsibility. This supports the finding that engaging in collaborative activities is a prominent strategy. The participants frequently worked with peers, sharing insights and providing mutual support, which can enhance critical thinking, problem-solving skills, and personal qualities (Beltran et al., 2020).

The findings indicate that online learning necessitates a comprehensive understanding of technology use, language competencies, pedagogy, and motivation. These elements guide language learners in using technology wisely for educational purposes through a well-planned strategic approach. The novelty of this study is evident in its discovery of findings related to internet self-efficacy and task strategies within an online English learning environment, reinforcing existing theories on technology use in online contexts. Pedagogically, the results suggest that both learners and teachers should view technology devices and the internet as strategic tools for achieving learning objectives, particularly in online English learning. Furthermore, the study offers more extensive insights, highlighting key factors contributing to successful online learning. Based on these findings, it is recommended to develop more detailed instruments to measure internet self-efficacy and task strategies in online learning with a larger sample size for future research, addressing the limitation of the current study's small sample size.

4. CONCLUSION

In conclusion, this study provides valuable insights into the internet self-efficacy and task strategies of EFL student teachers. By highlighting the importance of these factors in an online learning environment, it suggests that the indicators of internet self-efficacy and task strategy identified in this study should be considered crucial by educators. This would help language learners develop their technological awareness and use technology

effectively for learning purposes. With a thoughtful and strategic approach to using technology, language learners can enhance their technological skills and academic performance, ultimately leading to successful learning in the digital era. Future research could expand on this study by exploring these themes in various cultural contexts or with larger participant groups to further validate and generalize the findings. Additionally, the study indicates that online learning environments can serve as a catalyst for developing these competencies.

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