Textbook Adaptation Techniques in a Technology-Integrated Environment by an Indonesian EFL Teacher

Muhammad Ibnu Mustofa¹, Ika Lestari Damayanti²
¹ Universitas Pendidikan Indonesia. e-mail: ibnmustofa@upi.edu
² Universitas Pendidikan Indonesia. e-mail: ikalestaridamayanti@upi.edu

ARTICLE INFO	ABSTRACT
Keywords: *English language teaching, English textbook, materials adaptation, technology integration* *DOI:* *http://dx.doi.org/10.21093/ v9i1.1623*	*Research on the roles of textbooks in EFL teaching contexts has been widely reported. However, studies on textbook adaptation strategies in a technology-integrated classroom have not received much attention. To fill the gap, the current research sought to explore the types of textbook adaptation strategies employed by an Indonesian EFL teacher in a technology-integrated teaching environment. The challenges encountered and the coping strategies used by the teacher were also investigated. Through a qualitative case study design, an English teacher of an Islamic junior high school in Medan was purposively recruited as the participant. An interview and document analysis were employed to collect the data. The interview data were analyzed using a thematic analysis while the documents were through skimming, reading, and interpretation. The findings revealed that the teacher employed several adaptive strategies, such as omission, addition, and modification on the assignments, the language skills, student activities, and approaches (conventional to the technology-based classroom) through the use of websites, a projector, and digital tools. It was also found that adapting the textbook was challenged by the varied students' levels of proficiency and learning styles, as well as the students' expectations of the teacher. As the coping strategies, the teacher optimized her skills of technology literacy to design creative and engaging learning materials and included tasks that met the levels of students from low and high-achieving groups. The findings of this study imply the crucial roles of all education stakeholders in providing support for teachers to use textbooks effectively.*

1. Introduction

Despite technological advancement and the internet, many English teachers worldwide still primarily rely on a coursebook as a primary teaching resource (Richards, 2014) due to its

crucial role in language teaching. It provides a guideline for EFL (English as a Foreign Language) teachers (Orfan et al., 2021). Along with teachers, it is a major source of target language exposure in a classroom (Meurant, 2010). Equally important, it serves as a central core in a program and as a systematically planned and developed syllabus (Ariyan & Pavlova, 2019), as it is commonly designed by professional writers with expertise in multiple areas, such as writing, teaching, and teacher training (Atkinson, 2021). The notions above show that a textbook remains relevant in the era of technology integration in education. Therefore, teachers should have adequate theoretical knowledge of material adaptation and implement its practices for better student learning outcomes.

Teachers' expertise in textbook selection is essential. It will help them find the contents that fit their student's needs, including language proficiency and learning styles while aligning with the course objectives (Tonawanik & Donavanik, 2019). Similarly, Grammatosi and Harwood (2014) found that teachers utilize a textbook based on its quality and alignment with a pedagogical approach, students' characteristics, and the administrators' policy. In addition, experienced teachers generally use textbooks flexibly as a teaching resource (Savova, 2009), implying that rather than just adopting, they make textbook adaptations. Graves and Garton (2019) argued that effective use of teaching materials is associated with the teachers' expertise in the identification of rationales, methods, and the areas of materials to be adapted. Unfortunately, despite the interest in researching the textbook contents in Indonesia (Zein et al., 2020), the discussions on the coursebook adaptation integrated with technology remain underexplored.

Various aspects of the textbook may be the subjects of adaptation. Cunningsworth (2003) suggested methods, language content, subject matter, the balance of skills progression and grading, cultural content, and pictures as the areas that may be adapted. Additionally, as students nowadays frequently interact with multimodal texts (Damayanti & Febrianti, 2020), teachers can modify content by combining pictures and language to facilitate multimodal learning. Other aspects are the topic, activities, and the sequence of the lesson (Harmer, 2005). Similarly, Rathert and Cabaroglu (2022) mentioned some sections of the textbook to be adapted, including the activities and procedures, content, and language. Finally, careful selection of the vocabulary in EFL textbooks focusing on the most useful words for students may support them in comprehending the lessons (Sun & Dang, 2020).

The rationales behind the materials adaptation have been discussed by previous authors (Li & Xu, 2020; Mede & Yalçin, 2019; Pratiwi et al., 2020; Serrar & Bouhanna, 2020; Saraceni, 2013). For instance, Li and Xu (2020) believed that both the content and format of materials should be tailored to match a classroom's characteristics. Then, Mede and Yalçin (2019) found that teachers' adaptation decisions are affected by their students, tasks, context, time, and their own beliefs. Similarly, Pratiwi et al. (2020) implied the influence of teachers' beliefs, understanding, and students' condition as the rationales behind adaptive decisions. Saraceni (2013) emphasized the roles of adaptations in adding value to the materials when adapting them to a specific context and raising awareness of materials development and learner empowerment. Finally, Serrar and Bouhanna (2020) reported time allocation, the nature of materials, the task complexity, and the teachers' and students' teaching and learning styles as influential factors in adaptation. To sum up, textbook adaptation strategies are influenced by mutual external and internal driving factors.

Some studies have looked into the practices of textbook adaptations by EFL teachers in different education levels and geographical areas (Hanifa, 2017; Hanifa & Yusra, 2023; Mede & Yalçin, 2019; Pratiwi et al., 2020; Serrar & Bouhanna, 2020; Zhang et al., 2022). While most of the studies were qualitative (Hanifa, 2017; Hanifa & Yusra, 2023; Mede & Yalçin, 2019; Pratiwi et al., 2020), a reported study by Serrar and Bouhanna (2020) on the topic of textbook adaptation by EFL teachers distinctively employed a descriptive quantitative research design. These reported studies revealed that teachers have different preferences for adaptive strategies. Some teachers used multiple adaptive strategies, such as addition, simplification, modification, and reordering (Hanifa, 2017), while others applied only simplification and replacement (Serrar & Bouhanna, 2020), or addition and modification (Hanifa & Yusra, 2023). In contrast to the other studies, Pratiwi et al. (2020) reported expansion, re-writing, and abridging techniques as the adaptation strategies employed by the teachers. Unique preferences for textbook adaptation were also reported by Mede and Yalçin (2019), who reported that deletion, modification, addition, and replacement were among the strategies frequently applied by both novice and experienced teachers. Finally, Zhang et al. (2022) reported the teachers' frequent practices of addition and deletion. It implies that EFL teachers may refer to their specific contexts and situations as the rationales of textbook adaptation strategies.

Of the research conducted previously, the investigation of how an EFL teacher implements the strategies or techniques in textbook adaptation in a digital-integrated classroom environment is yet to be reported. Most of the studies in this area focused on conventional classroom practices (for instance (Hanifa, 2017; Hanifa & Yusra, 2023; Mede & Yalçin, 2019; Pratiwi et al., 2020; Serrar & Bouhanna, 2020). Therefore, this study is conducted to answer the following research questions: (1) What are the textbook adaptation techniques employed by an EFL teacher in a technology-integrated classroom? and, (2) what are the challenges in the textbook adaptation practices in a technology-integrated classroom?

The researchers expected that the results of this study would contribute both to theoretical enrichment and practical reference. For theoretical enrichment, this study was expected to be a starting point to explore the area of material adaptation in digitally developing English learning. For practical reference, the current study was expected to help the teacher participating in this study reflect and make changes to her teaching for better outcomes. It was also expected to give insightful references to other EFL teachers in digital-based classrooms.

2. Literature Review

2.1 Textbooks in EFL Teaching and Learning

A textbook is part of language learning materials, along with audio-visual aids, flashcards, educational games and websites, and mobile phones (Tomlinson, 2023). Teachers commonly use published textbooks for classroom instruction and lesson planning (Criado, 2023), and many teachers rely on them as their primary source of teaching resources (Brown, 2007). Moreover, textbooks improve education equality through the provision of content and evaluation of students' achievement in different classroom environments (Darmayenti et al., 2021). Textbooks are reliable teaching resources as they are designed

collaboratively by experienced authors based on the currently in-use curriculum (Atkinson, 2021).

Textbooks are generally provided by the government. However, many publishers design commercial textbooks for teachers and students, providing a wide range of options to choose from. Therefore, textbook selection by teachers should be considered based on its appropriateness with the curriculum adopted, the profile of the students, and the teachers' preferences (Gebhard, 2017). Additionally, Harmer (2015) emphasized the importance of considering the price, availability, layout and design, methodology, skill, syllabus, topic, stereotyping, and teacher's guide when selecting a textbook. To sum up, teachers' theoretical and practical knowledge of textbook selection is crucial to help them provide the best learning resources for students.

In the digital era, a printed textbook evolves from a stand-alone object to an interactive mode, involving digital technology (Meurant, 2010). Therefore, it is obvious that while there are multiple learning resources that are widely accessible by teachers, printed coursebooks or textbooks remain the most popular learning resources. However, the modern era has seen the digital version of books, known as e-books. It is said to have the potential to revolutionize learning due to its multimedia capabilities and portability (Hsieh & Huang, 2020). However, several studies found that e-books are not always convenient for students. For instance, Chou (2016) revealed that the majority of participants found the experience of reading e-books to be unpleasant. Finally, e-books can cause eye strain, posture problems, information overload, and user resistance, which can disrupt classroom effective teaching and learning (Alfiras & Bojiah, 2020).

2.2 Technology Integration in EFL Classroom

In a broad sense, technology refers to "traditional or established technologies," such as computer sets, websites, and phones, among others, and "new and emerging technologies" (Waycott et al., 2010). In the context of education, technologies have the potential to promote teaching and learning (Liang, 2021). Several authors are in agreement that using technology in education is expected to generate better learning outcomes. For instance, Gilakjani (2017) argued that technology integration is to help teachers perform familiar activities more effectively. It is a tool to achieve high-quality education (Wilkinson, 2016). Finally, Liang (2021) stated that technology integration does not only involve technology to teach lessons in the classrooms but also upgrades the quality of teaching and learning. The notions above are supported by recent studies on the roles of technology in linguistic skills, such as improving vocabulary learning (Hao et al., 2021), writing (Seyyedrezaei et al., 2022), speaking (Asratie et al., 2023), listening (Hsieh & Huang, 2020), and reading skills (Li, 2022).

The theories and reported studies above indicate that technology integration may help students achieve better learning outcomes compared to traditional ways of teaching and learning activities. However, teachers' supervision of the use of technology by students is needed (Sanfo, 2023), since technology use for leisure has a negative association with learning achievements. Therefore, a teacher's technological, pedagogical, and content knowledge (TPACK) is crucial. The roles of educational stakeholders in providing facilities with technological pedagogical and content knowledge (TPACK) can help save teachers time and effort in integrating technology, pedagogy, and content (Tseng et al., 2020).

2.3 Textbook Adaptation

Textbook adaptation refers to the activities of adjusting the contents to be more suitable for learners and their needs (Bosompem, 2014). According to Masuhara (2022), while materials adaptation is commonly done by teachers, there are adaptation projects conducted on institutional, national, and even international scales. However, material adaptation is often left to teachers and based on their intuition and experience (Saraceni, 2013). This implies the urgency of professional training to help teachers conduct practices on textbook adaptation.

There are many reasons why a teacher should make textbook adaptations. For instance, teachers make suitable changes to make the content meet their learners' characteristics (Harmer, 2015). Other factors of adaptive decisions are time availability, affection for students, and the academic challenges faced by learners (Richards, 2014). The aspect of cultures may affect the teachers' adaptive strategies, as textbooks produced for a wide audience may be inappropriate methodologically and culturally (Gray, 2016). Other studies (Ahamat & Kabilan, 2022; Toledo-Sandoval, 2020) reported that teachers believe in the urgency of adjusting the cultural contents of the textbook to the local contexts (to create meaningful learning for students.

There are many classifications and types of adaptation techniques described by scholars (i.e., Cunningsworth, 2003; Harmer, 2007; McGrath, 2013; Richards, 2017; Tomlinson & Tomlinson, 2011). For instance, McGrath (2013) allocates the varied terminologies into four basic adaptation techniques: omission, addition, substitution, and modification. Tomlinson and Tomlinson (2011) stated that textbook adaptation can be done through the process of reduction, addition, omission, modification, and supplementation. Then, Richards (2014) proposes some forms of adaptation techniques, such as the addition to fulfilling an examination, extension for additional practices, local content incorporation, content modification, content reorganization, and task modification. It shows that the textbook adaptation techniques can be done in flexible ways.

Rathert & Cabaroglu (2022) proposed a research-informed framework for textbook use, classifying the adaptation techniques into four main techniques (omission, addition, substituting, and modification) and ten sub-techniques. The first category of the main technique is omission, which can be done through sub-techniques of subtracting, and abridging. Subtraction is reducing quantitatively with no procedure changes. Abridging, on the other hand, is reducing qualitatively with procedure change (for instance, pre-activities are skipped). The second category of main technique is addition, which is increasing the number of materials or enhancing their function. It can be done through sub-techniques of extemporization (paraphrasing the instruction, exploitation (giving more purposes of the materials), expansion (adding more activities), and supplementation (adding a component with no change to the materials).

The third type of main technique is substitution (replacing a specific content with the one that has similar purposes). There is no sub-technique in this type of adaptation technique. The final category of main techniques is modification, which can be done on the language, procedure, and content through three sub-techniques: structuring, rewriting, and reordering. Restructuring means changing the procedure of the tasks or modifying the modality (changing listening into reading as a result of technical equipment scarcity).

Rewriting means changing the vocabulary, content, grammar, or the rubrics. For example, alcoholic drinks are rewritten as soft drinks to be acceptable in a particular culture. Finally, reordering refers to the change in the order of the contents to be taught.

3. Research Methodology

3.1 Research Design

The current research employed a qualitative case study, which is an in-depth empirical study that examines a contemporary phenomenon within the context of a real-life situation. (Yin, 2014). Moreover, it is a case study since the participant is only one teacher as the research subject (Merriam & Tisdell, 2015). The sample in this study is purposeful sampling since the researchers were the decision-maker of the individual to be the research participant. The researchers purposefully chose the specific individual and location to gain knowledge and comprehension of the phenomenon to be investigated (Creswell, 2012), which is, in this study, the EFL novice teacher's techniques and challenges in materials adaptation.

3.2 Research Participant

The current research was conducted at a private Islamic junior high school in Medan City. The school was selected since it applies the Cambridge International Curriculum, with an approach to a digital-based classroom. The subject was an Indonesian English teacher who was purposefully selected (Merriam & Tisdell, 2015) based on her 3 more-year experiences of teaching at the school and her track record in ELT professional development training involvement both as a participant and speaker. The participant was intentionally selected for her ability to clarify specific occurrences or phenomena, as well as her familiarity with, and/or experience with, the subjects under empirical investigation (Robinson, 2014). Considering the ethics of a qualitative study (Wiles, 2013), no identifying information about the participant was revealed in any form of communication (Hennink et al., 2019).

3.3 Instruments

The current research applied an interview and documents. Both of the instruments applied for the trustworthiness of data collection, as in data collection of qualitative research, trustworthiness is obtained through multiple resources (Franklin & Ballan, 2001). The interview was conducted over the telephone as it offers several benefits. This includes the ability to conduct the interview at a comfortable time and place, a higher focus on the message being conveyed, and a greater emphasis on the voice and conversation, rather than the interviewer's facial expressions. In addition, the interviewee may feel less judged during the interview (Ward et al., 2015). The use of open-ended questions allows participants to freely express their experiences, without being influenced by the perspectives of the researcher or past research findings. This creates options for responding (Creswell et al., 2018). The interview was adapted from McDonough et al. (2013) and was divided into two themes: (1) the techniques and factors of adaptive decision for research question 1, and (2) the challenges occurring during the adaptation for the second research question.

Regarding the first research question, the interview questions were related to the teacher's familiarity with materials adaptation, the techniques of adaptations generally adopted, the

aspects of the textbook frequently adapted, the techniques of adaptation used, and the main considerations of adapting the textbook. The interview questions for the second research question were related to the challenges of adapting, such as the constraints experienced during adaptation, the most challenging constraints, and the ways of overcoming the challenges. The interview guideline is attached in Appendix I in the final section of this paper.

The documents referred to as the instruments in this study were the teaching materials, such as the textbook and the additional resources used to teach grade IX of junior high school. They provide supplementary research data, serving as additional knowledge bases (Bowen, 2009). The additional resources were in the form of websites and digital tools. The contents of the textbook were analyzed to see how they were adapted. The websites and digital tools were analyzed based on their roles in supporting the textbook adaptation, for instance as additional resources or modifications.

3.4 Data Analysis Procedures

The data from a teacher interview was thematically analyzed (Braun & Clarke, 2012) through six steps. First, we familiarized ourselves with the transcribed interview. Secondly, we highlighted the responses relevant to the purposes of the study. Third, the highlighted responses were put into head themes. The fourth step was collaborative work by the researchers in evaluating and modifying the themes. The fifth phase was defining and naming the final themes, referring to the materials adaptation framework by McGrath (2013), such as omission, addition, substitution, and modification. The final themes were presented in the findings section of the research report. The documents were analyzed through the steps proposed by Bowen (2009) through document skimming, reading, and interpretation, following the materials adaptation theories.

4. Results

The aims of the current study are twofold. First, it aims to investigate the ways through which the EFL teacher in Senior High School adapts the textbook in a technology-integrated classroom. Secondly, it looks into the challenges of adapting the textbook in a technology-integrated classroom. The presentations of the findings are therefore presented in two sub-sections respectively.

4.1. Textbook Adaptation Techniques Employed by the Teacher in a Technology-Integrated Classroom

The initial inquiry preceding the interview question on the types of textbook adaptation techniques by the teacher is related to her familiarity with the terms of textbook adaptation, as presented in Table 1:

Table 1: The teacher's familiarity with textbook adaptation

The teacher interview response:
"I think, prior to this interview, I was not very familiar with the terms of adaptation techniques. But, I actually use adaptation techniques in my teaching practice.."

The next questions in the interview are about the aspects related to the first research questions: techniques applied, aspects or elements of the textbook being frequently used, and factors taken into consideration when adapting.

There are at least three types of textbook adaptation used by the teacher: omission, addition, and modification, as shown in the interview transcripts in Table 2:

Table 2: The types of textbook adaptation

The teacher interview responses:
"For omission, I leave out some chapters.." (omission)
"..I add some other resources from the internet, such as *ESLkidsgames, Teach This, cambridgelms.org*.." (addition)
"I modify the content most frequently. With the availability of technology, such as iPad, projector, and internet at the school, I have to modify the textbook contents and make them accessible through the *iPad* that the students use.." (modification)

Table 2 indicates that the teacher applies several adaptation techniques, such as omitting the contents, adding content from websites, and modifying the contents into digital form. On top of that, the teacher admits that among the adaptation strategies, she used modification most frequently in comparison to other techniques.

Regarding the sections of the textbook being adapted, the teacher mentioned some elements, such as tasks/assignments, skills, activities, and approaches, as demonstrated in the interview transcripts in Table 3:

Table 3: Sections of the textbook being adapted

The teacher interview responses:
"All chapters provide similar types of exercises, skills, and other aspects. Therefore, to keep the students engaged, I searched for other learning activities, making innovation."
"For instance, the conventional classroom activities are adapted to digital mode by using a projector."

Regarding the factors affecting the adaptation strategies, the teacher mentioned some aspects, including students' interests, time constraints, resource availability, and the levels of students. These aspects are informed by the interview transcripts in Table 4:

Table 4: the factors affecting the adaptation strategies

The teacher interview responses:
"To keep the students engaged, I searched for other learning activities.."
"I leave out some chapters due to the time constraints."
"I added the contents frequently, as the school provides us with technology [*iPad*, projector, internet connection]."
"In one class, some students are in level A1, while the others are B1. Thus, I have to search for other learning resources while adhering to the curriculum in use."

The interview transcripts are supported by the results of the document evaluation. The document analysis revealed that the teacher used additional resources from a website to accompany the textbook use. The textbook and website used as the additional resource to the textbook are shown in Figures 1 and 2, respectively.
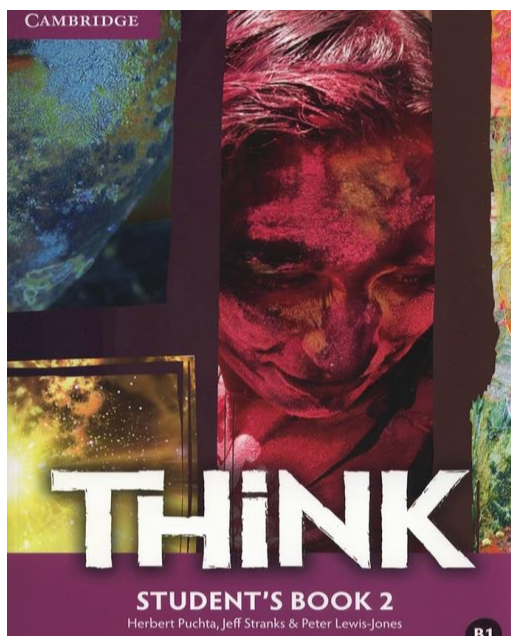
Figure 1: The textbook used by the teacher

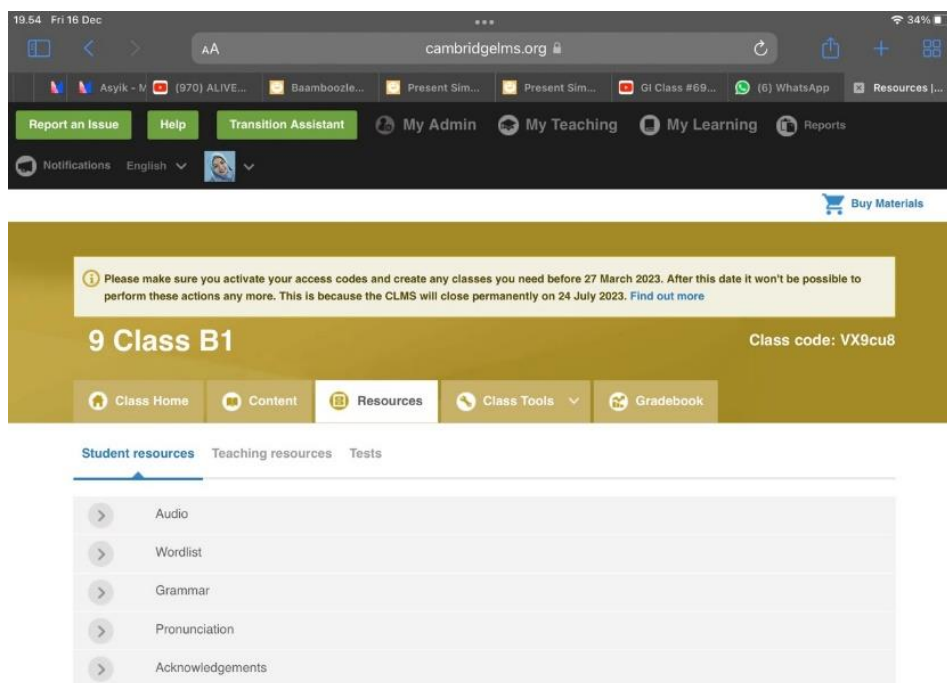The additional resource for teaching is shown in Figure 2.

Figure 2: The additional resource from *cambridgelms.org.*

Apart from addition as a technique employed, the teacher also informed that she frequently modified the contents of the textbook. This statement is confirmed by the document analysis, as shown in Figures 3 and 4. Figure 3 is the exercise in its original form while Figure 4 is the modified task, displayed on a projected PowerPoint presentation.
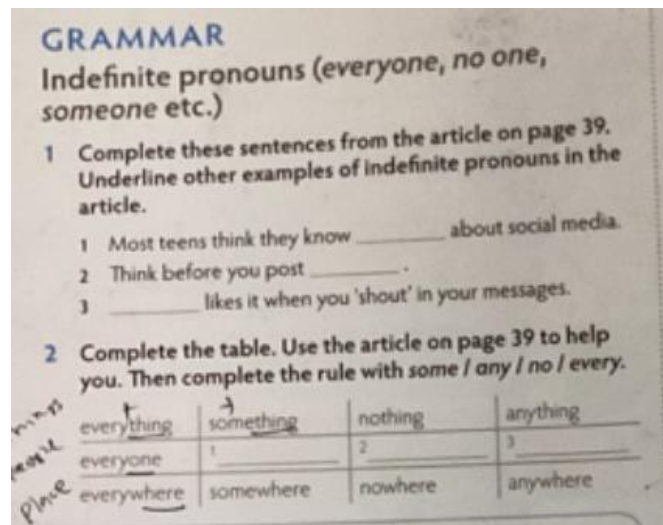
Figure 3: The original task in the textbook

Figure 4: The task modified

In her practice, the teacher shared the occurring challenges when adapting the textbook. She also revealed the strategies to solve the problems, as presented in the following part of the research findings.

4.2. Challenges in Implementing the Textbook Adaptation and the Coping Strategies

The transcripts in Table 5 show the constraints experienced by the teacher when adapting materials and the strategies used to overcome the challenges.

Table 5: the constraints in textbook adaptation

The teacher interview responses:
"It is challenging to make textbook adaptations, as students are highly digitally literate. So, as a teacher, I have to be creative. Using *Kahoot* too often causes student boredom.."
"One class consists of students of different levels. For instance, some students are in level A1, while the rest are B1. Therefore, I have to search for additional learning resources.."
"The most challenging is modifying the textbook to meet the students' varied proficiency levels. For instance, A1 and B1. Moreover, the students have different learning styles, such as visual, auditory, and kinesthetic.."

However, the teacher admitted that there are no institutional constraints in the adaptation process, as evidenced by the script in Table 6:

Table 6: The challenges in textbook adaptation

The teacher interview response:
"There are no constraints from the school, as the teachers are provided with iPads. The teachers are free to use their creativity in using additional learning resources."

To overcome the challenges, the teacher admitted that she attempted to be more creative and mix the exercises for lower and higher levels students, as indicated in the interview transcript in Table 7:

Table 7: Ways of overcoming the challenges in in textbook adaptation

The teacher interview response:
"..with the availability of the technology at the school, I attempted to be more creative to meet the student's varied characteristics and learning needs."
"I designed easy and hard questions in the assignment to accommodate students with lower and higher proficiency levels. Moreover, I spent more time scaffolding those with lower academic achievement."

5. Discussion

In line with the notion delivered by Menkabu and Harwood (2014) regarding the teachers' familiarity with textbook adaptation techniques, this study shows that the participant was not initially familiar with the term materials adaptation despite her frequent practices of textbook adaptation activities. However, she has now gained a better understanding after her participation in this research. This study confirms the previous studies (Pratiwi et al., 2020; Tibebu, 2017) that revealed some teachers were not aware that they made regular adaptations to the coursebooks they used in the classroom, resulting in the ignorance of the principles and theories in materials adaptation. The findings of the current research also show that the teacher applied digital technology in adapting the textbooks, implying the teacher's attempt to optimize learning through the use of technology. Regarding this, several scholars (Gilakjani, 2017; Liang, 2021; Wilkinson, 2016) emphasized the importance of technology to generate better learning experiences and outcomes. By using technology to adapt the textbook, the teacher can help students apply technology properly to avoid the negative outcome of technology on learning (Sanfo, 2023).

In terms of the adaptation techniques, the teacher in this study applies omission, addition, and modification. This result is similar to other studies (Hanifa, 2017; Zhang, et al., 2022). Hanifa (2017) reported addition, simplification, modification, and reordering as the techniques used by the teachers while Zhang et al. (2022) found the tendency of the teachers to add and or delete the contents. The teacher in the current research admitted modification as the most frequently applied technique, confirming a study by Mede and Yalçin (2019) who reported similar findings. However, this study is in contrast with Serrar and Bouhanna (2020), who reported simplification and replacement as the most frequently used strategies. Another contrasting finding is reported by Pratiwi et al. (2020) and Ahamad and Kabilan (2022), who revealed addition as the most frequently used technique. Nevertheless, the current study is similar to the study by Ahamad and Kabilan (2022) in terms of the use of technology, such as computers and the Internet in textbook adaptation.

Given the available options of adaptation techniques in the literature (Rathert & Cabaroglu, 2022; Richards, 2014; Tomlinson & Tomlinson, 2011), the teacher in this study applies very limited techniques of textbook adaptation. It may result from the lack of professional training on textbook use and adaptation.

Regarding the aspects or elements of the textbook being frequently adapted, they are assignments/tasks, skills, and activities. Compared to the literature available, the elements of textbooks being adapted in this study are still underexplored. The participant could explore more areas of the textbook to be adapted, such as the illustrations, contents of culture, language, or methods (Cunningsworth, 2003) Similarly, Rathert and Cabaroglu (2022) stated that the adaptations may be applied to various aspects of the textbook, such as activities and procedures, content, and language. It is also important to carefully select the vocabulary in EFL textbooks to help learners understand the content of the textbooks and simultaneously focus on the most useful words for them (Sun & Dang, 2020). Additionally, since students nowadays have increasingly pervasive interaction with multimodal texts (Damayanti & Febrianti, 2020), teachers may modify the contents through the combination of pictures and language to facilitate students with multimodal learning.

The factors of adaptation considered by the teacher in this study are the student's interest in learning, the varied levels of the students, time constraints, and adjustment to the digital technology available at the school. Regarding the interests and academic levels of students, the current study confirms previous research by Pratiwi et al. (2020), Mede and Yalçin (2019), and Serrar and Bouhanna (2020), who reported student condition as one of the considerations for adaptation. Moreover, this research is similar to a study by Serrar and Bouhanna (2020), who reported time allocation and the teachers' and students' teaching and learning styles as the factors affecting teacher's adaptive decisions. As for the time constraints, it is similar to Hanifa (2017), who found that as a result of time constraints, teachers left out or deleted some parts of a chapter to cover all the lessons following the syllabus. It is also in line with the notion by Rathert and Cabaroglu (2022) who believed that teacher adaptation may not be based on pedagogic concerns, but on pragmatic situations, such as avoiding falling behind the academic schedule. However, Halim and Halim (2016) found that the factors affecting the adaptive decision are related to the suitability of the contents to the teacher's and students' circumstances.

The current study reveals three challenges encountered by the teacher when adapting the materials: students' varied proficiency levels, learning styles, and high expectations towards the adapted materials. Confirming the previous study conducted in Algeria (Fahima, 2022) the most challenging factor of textbook adaptation in this study is the students' levels of proficiency and learning styles. If it is made much easier than its original level, high-achieving students may find it boring. In a similar vein, Hanifa (2017) found that too many simplifications may hinder the students' development as they are constantly in their comfort zone, without being given challenges to enhance their skills. However, the teacher in the current study did not mention external challenges, such as lack of facilities (Hanifa, 2017) or school restrictions on textbook adaptation practices (Halim & Halim, 2016).

To overcome the challenges, two ways are identified in this study: exploring digital creativity to accommodate varied students' learning styles and giving exercises that are not too difficult nor too easy to deal with the students' different levels of proficiency. Similarly,

Maryono and Lengkanawati (2022) reported on teachers' attempts to accommodate varied students' learning styles using digital platforms, such *as YouTube, PowerPoint, Google Form, Google Classroom,* and *Google Meet.* To help teachers expand their creativity in textbook adaptation and technology integration, publishers should consider infusing textbooks with PowerPoint slides displaying additional language points, cultural content, and supplementary activities (Zhang et al., 2022). These features, as Zhang et al. (2022) suggested, may serve as textbook adaptation strategies, mainly addition or modification. Moreover, infusing the learner autonomy principle in textbooks may help students with autonomous learning (Mustofa & Wirza, 2023), especially for high-achieving students.

The findings of this study imply that the effective use of textbooks by teachers requires the support of all education stakeholders, including curriculum developers, textbook publishers, and scholars. Teachers should make an attempt to upgrade their capacity by exploring the literature on teaching materials use, especially textbook adaptation. Moreover, the availability of clear policy, systematic consideration, and textbook adaptation guidance may solve the problems related to teacher development and engagement to realize a well-established curriculum (Masuhara, 2022). Professional development or intervention programs will provide teachers with an appropriate model of technology integration in EFL teaching and learning (Tseng et al., 2020), especially in the aspect of textbook adaptation in integration with digital resources. Finally, research on the practices of textbook adaptations will provide insightful knowledge and help make well-informed decisions for curriculum developers, publishers, and educators.

6. Conclusions

The current research has revealed that the teacher participating in this study applied several techniques of material adaptation, such as addition, modification, and omission, involving the roles of digital tools. However, the adaptation techniques are not widely applied since there are still many more adaptation techniques available in the literature. In general, the factors of adaptive decisions found in this study confirm the previous findings in the same field of research, but there are many areas of textbooks not taken into consideration, as suggested by the literature. Finally, the challenges experienced by the teacher when adapting come mostly from the students. No institutional factors were found since the school has provided all the facilities optimally. It supports the notion that facilities play an important role in a teacher's teaching performance. Based on the findings, the researchers recommend the teacher's exploration of the adaptation techniques available in the literature and their implementation in teaching practices. To integrate adaptation with technology, the researchers highlight the equal responsibilities of the governments and school administrators in facilitating the teachers with professional development training to create a better learning environment and outcomes.

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APPENDIX I
Interview Guideline

Research Question 1
1. To what extent do you consider yourself familiar with teaching materials adaptation?
2. What techniques of textbook adaptation do you generally apply?
3. What aspects of the textbook that you adapt most frequently? i.e., topic or assignment.
4. What techniques of textbook adaptation (omission, addition, substitution, and modification) do you apply more frequently than the others?
5. what are the main considerations for adapting a textbook in your classroom activities? i.e., curriculum and syllabus, student needs, or time constraints.

Research Question 2
1. In general, what constraints do you experience when adapting a textbook?
2. Based on your answer, which one is the most challenging?
3. How do you overcome the challenges?

(Adapted from McDonough et al., 2013)