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## Textbook Mediation in EFL University Students' Learning

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### Abstract

Driven by the concept of mediation, this study is set out to use sociocultural theory as the theoretical framework to explore the mediation role of textbooks, specifically, the series *Northstar* in English as a Foreign Language (EFL) university classes in Vietnam. Learning journals with guided questions are employed to collect data on how different aspects of English textbooks assist students' learning in the classroom. Besides, transcripts of recorded classroom observations are analysed to interpret how the textbooks formulate and facilitate students' ideas related to the given tasks and generate their interaction in both the target language and the mother tongue. It is found from the students' journals that the textbooks assist them in understanding the lesson contents and the images help them with visualizing the lessons. Besides, the students make use of the tasks/activities when practising language skills, especially the listening skill. The transcripts reveal the process in which students refer to their previous knowledge related to the topics/tasks provided in the textbooks to interact with one other. More specifically, the tasks and the ideas of other group members mediate more thoughts of the students, leading to collective knowledge construction and task completion. From the findings, recommendations for the use of textbooks in the framework of sociocultural theory are put forward.

**Keywords:** sociocultural theory, mediation, artifacts, textbooks, EFL university students

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## 1. Introduction

English textbooks play an integral part in English as a Foreign Language (EFL) classrooms as they are “the bedrock of syllabus design and lesson planning” (Kramsch, 1988, p. 63), maintain consistency across sections, and serve as a basis for what is learned and the order in which it is learned (Graves, 2000). Viewed from sociocultural theory perspective, a textbook is an artifact which is considered to mediate the learning process when being used (Impedovo et al., 2017). According to sociocultural theory, textbooks and their use can reveal contextual factors and text characteristics (Le, 2020) and help to explore the way teachers mediate the use of textbooks in teaching and learning through the processes of scaffolding (Horsley & Walker, 2005). Textbooks as a whole facilitate students to complete their classroom work and contribute to students’ knowledge/understanding (White, 2019). However, what aspects of textbooks generate students’ learning in the classroom and students’ reflections on these aspects remain an issue to explore. Besides, given the fact that most EFL classes depend on the use of textbooks published in native English speaking countries for language input, instructions, activities and tasks, it is significant to find out how EFL students are mediated by these artifacts. On this ground, the current study is set out, using sociocultural theory as a theoretical framework to explore the mediation role of textbooks, specifically, that of the series *Northstar* in EFL university classes in Vietnam. It seeks to answer the following research questions:

### Research questions

- 1) What aspects of textbooks mediate EFL students’ English learning?
- 2) How do these textbook aspects mediate students’ English learning?

## 2. Literature Review

### 2.1 Textbooks in EFL Settings

Textbooks are indispensable in any academic settings and in EFL classrooms, they play a more vital role. “Academic textbooks exert a significant influence on academic milieu and serve as a means to disseminate facts and developments in different disciplines” (Darani & Talebinejad, 2014, p. 22). Swales (1995) coined the phrase “hybrid genres” to address the roles of textbooks because they can integrate new research findings, open up new avenues, and produce appealing new themes

that merit further investigation. For EFL teachers, textbooks provide them with guidance in the course and activity design. They also assure a measure of structure, consistency, and logical progression in teaching (Ayu & Indrawati, 2018). For EFL learners, textbooks provide them with something concrete to work from and take home for further study (Alhamami & Ahmad, 2018). However, it should be noticed that textbooks used in EFL settings can cause dilemma as they are usually adopted from native speaking countries and contain contents that might be inappropriate to EFL learners. Besides, over-dependence on textbooks may lead to reduction of creativity for both teachers and learners.

## ***2.2 Textbooks as Mediating Artifacts in Sociocultural theory***

Sociocultural theory developed by Vygotsky and his colleagues emphasize that human cognition develops through social interaction and through interacting with artifacts or tools (Lantolf et al., 2020). The theory is suggested to be applied into English language teaching and across disciplines (Le, 2020). Vygotsky (1980) postulated a process by which ‘lower’ mental functions, such as elementary perception, memory, and attention, are transformed into ‘higher’ or culturally-mediated functions, such as conceptual thought, planning, and problem-solving. Such transformations are brought about by mediation and tools. In other words, artifacts and tools play vital roles in engaging humans into activities in which humans when interacting with those artifacts can change their cognition. The artifacts including objects, tasks, and the like can be internalized by human to lead to self-regulation. Taking from the sociocultural perspective, Wartofsky (1979) argued that artefacts could function as the vehicle of information across generations and they evolve with time through being redesigned to achieve new goals and activities. Sociocultural theory is adopted for the current study for its significant differences from other theoretical perspectives because it emphasizes the integrated nature of both individual and social elements in the learning process. Besides, in sociocultural theory, both cognitive and linguistic aspects are considered when the meaning contained in the sign system is interpreted by the individuals in interaction with others (Ma, 2020).

Mediation, in Vygotskian terms, is the process by which human action is shaped by the use of cultural tools. A mediated action refers to the process of learners

constructing meaning while they employ cultural tools and dialogically interact with the tools (Vygotsky, 1980). Individuals have at their disposal a variety of psychological tools, one of the most important of which is language. An artifact is defined as follows:

Artifacts, thus, include material tools and symbolic tools (language) and their primary unit is human cognition. As material-symbolic tools they empower us to organize and monitor mental processes such as voluntary attention, logical problem solving, planning and evaluation, voluntary memory, and intentional learning. They can be verbal and non-verbal, including, for example, mnemonic devices, diagrams/graphs and language. (Orland-Barak & Maskit, 2017, p. 8)

Classifying artifacts, Impedovo et al. (2017) grouped them into immaterial and material ones. The immaterial artifacts are psychological tools through which mental activities are supported and developed by means of signs. Immaterial artifacts, especially, linguistic signs when in use can organize the way of life of a culture and enable people to think together. In contrast, material artifacts comprise tools and are object-oriented. In the classroom, they both however can be referred to as instructional artifacts or materials generated in classrooms, such as assignments, homework, quizzes, projects, or examinations, and portfolios. Lantolf (2000) considered mediation to include social mediation (verbal discourse), self-mediation (private speech), and artifact mediation, which might include such items as textbooks, portfolios or computers.

Similarly, Poehner (2011, p. 247) explained, "Physical and symbolic artifacts function as mediating tools, enabling humans to gain control over their mind". White (2019) however argues that an artifact enacts itself when it is applied in a specific situation and transforms the user's understanding. Furthermore, artifacts may constrain the user's action in respect to the object as Bottino and Chiappini (2002, p. 762) pointed out, "The introduction of a new artifact in an activity influences both the norms regulating participant's interaction in the activity and the roles that participants can assume." A textbook, according to sociocultural theory is a tool with conventionality of purpose (Lantolf & Thorne, 2006) because when learners work with this tool, it will result in varied functional uses. Besides, when using textbooks, students become agents in charge of their own learning (Pavlenko & Lantolf, 2000).

A textbook can indicate a segment of a type of cultural representation of a society and an education system. Different textbooks can mediate the mental

processes of different people engaging with them, including teachers and learners. These mental processes include memorization, decision making and conceptualization (Morgan, 2011). A textbook is an important curriculum artifact which shapes the classroom experience (Ilieva, 2018) and provides a context into the broader and more inspiring cultural context; it is conceptualized as a cultural-supportive system of individual development (Pešić, 2005). In the process of learning, learners usually explore visual features along with the textual contents in textbooks; both can guide students to understand what the textbooks represent and scaffold students' learning processes and understanding of activities (Salbego et al., 2015, p. 7).

### **2.3 Previous Studies**

The mediating roles of textbooks used in different institutional and cultural contexts have been explored. The main themes in general can be grouped into two streams, namely the mediating roles of textbooks in instruction and in epistemic stance.

For those studies in the the first stream, the findings overall highlight how language, instructions, and visuals used in textbooks facilitate students to complete their classroom work. The earliest finding on the mediating role of textbooks was reported in the study by McDonald et al. (2005) in which the use of textbooks for young children in New Zealand and of an English textbook for university students in Vietnam was compared. The authors argued that despite the fact that the textbooks served different purposes and used in different cultural contexts, both of them worked as material artifacts carrying written messages that provided instructions and functioned as a guide to concepts and words which students could use. The textbook in the EFL context of Vietnam, with its topics and questions, provided a representational model for how to go about the discussions. In the context of New Zealand, the artifact facilitated children as to how to make sense of the problems they were solving.

Another study was carried out by Allen (2008) to explore teaching assistants' beliefs and practices related to the role of textbook materials in foreign language teaching and learning in beginner-level courses. The interview results, interpreted from a sociocultural theory perspective, indicate that the textbook was an important tool mediating instructional planning and student learning of foreign language

vocabulary and grammar, but it was considered less valuable for student-to-student oral activities and for teaching culture. More specifically, the textbook informed the participants' teaching and served as a reference tool for students' learning, anchored learners' acquisition of vocabulary and grammar, and provided images, readings and audio materials for classroom instructions.

Also focusing on the mediating role of textbooks, the study by Niu et al. (2018) scrutinized the use of artifacts in learning oral English by Chinese EFL learners. Among different forms of artifacts such as journals and resources, the English textbooks, *New Concept English 2*, were found to facilitate the participants' oral English learning by providing practical knowledge and English-speaking opportunities. Besides, the textbooks helped to develop the students' sense of the language and cultivate their ability to think in English because of its "authentic content." In the participants' reflections, the questions, presentations and activities involved in the English class all served as specific cultural artifacts mediating students' oral language learning.

The online platform of learning has led to studies on e-book mediation. The study by Schuh et al. (2018), for example, used interviews and journals to collect data in eight university courses. The findings indicate that instructors found ways to use the e-textbook as an instructional tool as they provided easy access in digital form to facilitate development of instruction. In comparison, students used the e-textbook as a tool that mediated their activity in a similar way for a traditional textbook. Another finding of the study reveals that the e-textbook may be a mediator of learning for the students and a mediator of formative evaluation for the instructors.

In the second stream, most studies highlight the mediating roles of textbooks in the epistemic stance. One example is the research by Øygardslia and Aarsand (2018) who studied the use of several kinds of classroom artifacts by grade six and seven students in Norway in the game design process. The video recordings reveal that the students shifted between using the textbook and a Google images search. However, the textbook was the students' point of departure, and the information they found on Google was compared with what they found in the textbook. In the students' opinions, the textbook was considered to have epistemic primacy and was also more trustworthy. The authors concluded that the textbook was an example of an artifact that was used in the subject and represented what students were expected to know.

Another similar study was carried out by Andersson-Bakken et al. (2020) which explored how three Norwegian science textbook tasks mediated pupils' understanding of science and showed pupils how to think, act and reason within the science subject. According to these authors, tasks could direct the pupils' attention to particular aspects of a content and help them specify ways of processing information. It was found that the pupils were socialized into an understanding of science through the tasks in the science textbooks which conveyed to pupils the types of knowledge, values and practices that were important and relevant.

Overall, the previous studies in the two streams reviewed above have examined how textbooks as a whole facilitate students to complete their classroom work and how textbooks contribute to knowledge/understanding seen from the epistemic stance. For general classroom learning, the studies by Allen (2008), McDonald et al. (2005), Niu et al. (2018), and Schuh et al. (2018) have touched on how language, instructions, and visuals were used in textbooks facilitate students to complete their classroom work. For knowledge construction, the studies by Øygardslia and Aarsand (2018), and Andersson-Bakken et al. (2020) have delved into how students made use of Google search and science textbooks to expand and gain an understanding of the tasks at hand. However, what specific aspects of textbooks mediate students' learning in the classroom and students' reflections on these aspects remain an issue to explore. Besides, the actual learning mediation of textbooks should also be scrutinized to see how knowledge is mediated via students' interaction with the artifacts and with other students. Addressing these gaps in the literature, the current study aimed to answer the following research questions:

- 1) What aspects of textbooks mediate EFL students' English learning?
- 2) How do these textbook aspects mediate students' English learning?

### 3. Methodology

#### 3.1 Participants

Fifty students were invited to participate in this study. They were studying in a four-year program for a bachelor's degree in English at a university in Vietnam. They were in their first and second years when they were studying mainly English



language skills and would stay in the program for two or three more years to complete their major courses. Their levels of English proficiency reached the levels of B1 or B2 according to the Common European Foreign Language Reference (CEFR). Their ages ranged from 18 to 20 and they came from different parts of Vietnam but they formed homogeneous groups. The prescribed textbooks were the series of *Northstars* 1 to 3 by English and English (2015a; 2015b; 2015c; 2015d; 2015e; 2015f) published by Pearson publisher. The textbooks provide lessons of listening and speaking, vocabulary, and grammar in one series and reading, writing, vocabulary and grammar in another. The series have been prescribed as the core textbooks for the first and second year students at the research site and both teachers and students are familiar with the textbooks.

### 3.2 Instruments

The current study employed audio recording and learning journals for data collection. The purpose of the recording was to capture the actual interaction when the students were working with the textbooks in their classrooms. The learning journal aimed to collect the students' reflections on the experience of using the textbooks in the classrooms.

The learning journals provided seven guiding questions whose themes were based on the principles of artifact mediation in sociocultural theory (Ilieva, 2018; Lantolf & Thorne, 2006; Pavlenko & Lantolf, 2000; Salbego et al., 2015). The first question asked how the use of English textbook facilitates students' learning in general. The next questions then went into asking about more specific aspects of textbooks and their roles in assisting students' learning in the classroom, focusing on the textbook visuals, the audio files/CDs accompanying the textbooks, the combination of the visuals and the audio files, the activities, and instructions in the textbooks. For each question, the students were requested to provide concrete examples.

### 3.3 Data collection procedure

The students were asked for their consent to participate in the study and their real names and identities were not revealed in the recorded transcript or learning journals. The classroom teachers and students were approached to ask for approval



of their natural classes to be observed and recorded with mobile phones when they were working on the tasks given in the textbooks. Besides, students were invited to write learning journals in their mother tongues following the guiding questions focusing on their interaction with the textbooks.

### 3.4 Data analysis

Data from the audio transcripts that revealed the process of students interacting with the textbooks were segmented to analyse how the artifacts mediated their learning in the classroom. The segments were extracted on the principle that the activity ended or the questions in the textbooks were answered and they are referred to as “excerpts” in the current study. The students were coded S1, S2, S3, S4 and S5 in the excerpts according to the order that they first talked in the recordings. The theoretical insight of artifact in the framework of sociocultural theory, as discussed earlier in this article, was used to interpret the transcript.

In addition, 50 learning journals written by the 50 students in their first language were collected after a week after they had used the textbooks *Northstars*. The journals were then examined deductively on the themes reflected in the guiding questions as described in the section about the instruments of the current study. For the purpose of data analysis, the journals were coded from J01 to J50 and the appearance of the themes was counted basing on the principle of corroborative frequency counting (Hannah & Lautsch, 2011, p. 16). Corroborative frequency counting is conducted as a form of conventional triangulation approach to examine whether the same findings collected from the learning journals occur in two separate processes: purely qualitative analysis of the themes and quantitative analysis of the counted themes. The coding was adapted from the study by Jiang et al. (2019), as presented in the following table:

**Table 1**  
*Data Coding and Analysis*

Mode	Definition	Recorded classroom transcript and students' learning journals
Textbook	A textual artifact	How the textbook provides understanding
Image	A static visual artifact	How images in the course book/textbook provoke thinking
Recordings	An auditory artifact	How students make use of the audio files from CDs or audio files.
Multimodal Artifact	A mixture of visuals and texts and are composed in deliberate sequences	How different kinds of artifacts interact and are made use of by students
Tasks/Activities	A mixture of texts and visual designed in deliberate sequences.	How students interact with task/activity instructions and components

Adapted from Jiang et al. (2019)

#### 4. Results

The following section reports the results and discuss them in the light of sociocultural theory as well as in comparison with the previous studies. Data reported in this section come from 50 journals written by 50 EFL university students and returned to the researcher after one week and from the recorded audio transcript of classroom learning when students were engaging in the activities in the textbooks. The frequency was tabulated for students' journal entries regarding the coded themes as stated in the Method section, and its result is presented in Table 2 below.

**Table 2**  
*Mediating Roles of Textbooks in Students' English Learning*

Category/Mode	Coded themes	Frequency (N=50)
Textbook	Understanding the lessons	25
	Gaining knowledge related to the lessons/topics	14
	Learning English vocabulary	11
	Learning language skills	06
	Learning grammar	05
	Reviewing lessons	03
Visuals/Images	Visualizing the lessons	30
	Understanding the lessons	12
	Motivating/Engaging students into the lessons	08
	Providing resources for English speaking	02
	Activating imagination	02

Category/Mode	Coded themes	Frequency (N=50)
Audio files	Helping to learn vocabulary	01
	Promoting learning and practising listening skills	31
Multimodal Artifact	Self-studying listening after class	07
	Enlarging topical knowledge	04
	Improving pronunciation	04
	Predicting the listening topics and the answers	12
Tasks/Activities	Contextualizing and visualizing the listening contents	11
	Understanding and remembering the lessons longer	06
Instructions	Motivating students' learning the listening skill	06
	Practising language skills	20
	Motivating and engaging students	10
	Promoting interaction with classmates and teachers	06
	Remembering the contents of the lessons	05
Instructions	Understanding how to do the exercises/activities/tasks in the textbooks	30
	Figuring out how to solve activities independently	03

Six aspects of textbooks are reported to mediate students' English learning. They range from textbooks in general, visuals/images, audio resources, multimodal artifacts to tasks/ activities and instructions. In their journals, half of the students (25/50) wrote that the language in the textbooks assisted them in figuring out what they needed to do in the classroom. For example, journals 45, 46, and 47 reported that with the textbooks, students were able to follow the contents of lessons, and understand the teachers better. Gaining knowledge thanks to the use of textbooks achieved the second highest frequency (14), whereas only three students wrote that they used the textbook to review the old lessons.

Images and illustrations in the English textbooks were considered to help the students visualize the lessons (30). In journals 01, 08, and 15, the students similarly reported, "The images in the textbooks helped me to visualize the contents of the lessons, details and information related to the lessons." Journal 12 gave a specific example that the visuals helped him to know about Pegoso Communication Satellite and orbital debris.

The series *Northstar* textbooks have CDs to accompany and 31 students claimed that the audio files promoted the students' learning and practising the listening skills. The combination of the audio files with visuals in the textbooks were reported to assist in students' predicting the listening topics and the answers (12) and in contextualizing and visualizing the listening contents easily (11).

In the journal entries, the students also wrote that the activities/tasks in the textbooks provided them with concrete stimulus to practise language skills (20), to motivate/engage them (10). Besides, the majority of the students claimed that the instructions in the textbooks were useful to help them understand how to do the exercises/activities/tasks in the textbooks (30).

Besides data from the students' journal entries, extracts from audio recordings were segmented to examine the mediating roles of textbooks. Excerpt 01 below was extracted from the activity on page 17, *Northstar 1*. The task asks the students to interview two classmates by asking them questions about what they like and have problems with. The suggested language structures include "...is" "...likes", "...is interested in...", "...has problems...". Below is the talk presented by a student.

### Excerpt 01

Today I will tell you about my classmate. Her name is Nga. She always feels comfortable. She is short and naughty. Her hobby is shopping. Some of her favourite things are clothes, cosmetics and food. There are 6 members in family, her parents, two brothers and her. She admires Phạm Nhật Vương who is the richest man in Vietnam now. Those are some information about my friend. Thanks for your listening.

The transcript of the student' presentation in Excerpt 01 above indicates that the student did not strictly use the clues provided in the textbook but those clues generated more ideas from the presenter. The language expressions provided were transformed into the presenter's own language as her previous knowledge of the symbolic tools interacted with the tasks in the textbooks to create new language use.

In Excerpt 02 below, the students were working on an activity in the textbook (*Northstar 1*, pp. 104-105) which provides a list of expressions to react to interesting/general information. The students role played the conversation using the given statements and the expressions.

### Excerpt 02

S1. Đoạn A hay B hê? [Paragraph A or B?]

S2. Đoạn B. [Paragraph B]

S1. Did you know that that Google employees can wear jeans to work? Là mình phải trả lời đồng ý, vì họ mặc quần jeans để thấy thoải mái khi làm việc. [We should agree because people wear jeans to feel comfortable when working].

S2. Rồi. [Yes]

S1. Listen to this. There is a real dinosaur skeleton on the the first floor of Google office.

S2. Cái ni là mình bất ngờ nè. [I am surprised about this.]

S1. Những người nhân viên có thể chơi các trò roller hockey 2 lần 1 tuần à? [Is that correct that the employees can play roller hockey twice a week?]

S2. Có phải câu hỏi mô. [It is not a question.]

S1. Cái ni là cái chi? [What is it?]

S2. Có thể chơi cái ni, roller hockey, 2 lần 1 tuần trong công viên. Mì biết cái ni không? [They can play roller hockey twice a week in the park. Do you know this?]

S1. Cái ni là chơi giống trượt patanh [It is like patin]. That's interesting.

S2. Bạn có biết là những người làm việc ở Google có thể mang chó vào chỗ làm việc không? [Do you know what Google employees can take their dogs to the workplace?]

S1. Tao biết cái ni vì mấy tháng trước trên mạng hấn có hiện lên. Tao nghĩ Google thoải mái, nên chắc bình thường thôi. [I know this because it appeared on the internet. I think Google is easy and that is acceptable.]

S2. Vậy trả lời là [So, we should answer]

S1. Yes, I did. Because yesterday tôi có thấy bức ảnh [I saw a picture]

S2. I saw a picture

S1. Có một con chó đi làm việc [A dog goes to work]

S2. Google bought its building in California for 319 million dollars.

S1. Mua một building ở California

*Recording was ended.*

Apart from following the statements in the textbooks, S1 and S2 in Excerpt 02 used their own previous understanding and knowledge of the working environment of Google which came from their own reading to express their opinions towards the

statements. For example, S1 said he/she knew the fact that a dog can follow an employee to the working place of Google through what is shown on the Internet. The excerpt also reveals that the talk of the students was structured by what is prescribed in the textbook. The interaction between S1 and S2, however, was expanded with the explanations from both of them. Under time constraints for the classroom activity, the questions from the textbook oriented the students to be task-focused. They also facilitated the students' idea generation and sharing.

In another activity in *Northstar 3*, Reading and Writing, unit 6, page 136, the students are asked to express their opinions in groups of three. They have to choose one of the questions.

1. If you were a scientist in Antarctica, how would you feel about tourists? Explain.
2. Can you find any weaknesses in the writer's opinion? Do you agree with everything he says? How much do you agree with him?
3. Would you be interested in visiting Antarctica as a tourist? Why or why not?

The students' answers to the questions are presented in Excerpt 03.

### Excerpt 03

S1: Nếu bạn là nhà khoa học thám hiểm nam cực, bạn cảm thấy như thế nào về tourists? [If you were a scientist to explore the Antarctica, how would you feel?]

S2: Giải thích ý của mình. [We need to explain our opinions]

S3: Mình làm bằng tiếng Việt, xong dịch ra tiếng Anh cho khoẻ. [We can answer in Vietnamese and then translate into English. It is easier this way].

S2: Đọc đi, ghi vô giấy. Cho tờ giấy, Thi! [Read it and take notes. Give a sheet of paper, Thi]

S4: Đầu tiên là, cảm thấy như thế nào? [First, how would you feel?]

S1: Cảm thấy không thích vì lượng du khách đến quá đông. [Not good because the number of tourists is too crowded.]

S2: Với là, họ tới đó xả rác với dầu. [Besides, when they go there, they will litter and leak oil].

S3: Do tàu tràn dầu [Due to oil spill]

S2: Cũng do du lịch mà, họ đi tới nên bị tràn dầu [Yes, due to tourism, tourists go there and this causes oil spill].

S1: Ngoài ra, khách du lịch [Besides, tourists] easily damage penguin eggs.

S2: Phá môi trường sống [Destroy the habitat]

S3: Động vật và thực vật luôn, hệ sinh thái [Both animals and plants, the

ecosystem]

S1: Mà nơi đó nhiều động vật hơn là thực vật. [There are more animals than plants in that place]

S2: Phá cây là mất 100 năm mới mọc lại. [It takes 100 years for trees to grow back if they are cut down]

S3: Oil spill, ý nói là [that means] problem caused by tourists

S2: Tràn dầu là giết nhiều loài chim với cá [Oil spill will kill many bird and fish species]

S2: Mà lý do tràn dầu là do tourists, đi tàu, thải dầu ra. [The cause of oil spill comes from tourists who go there by ship leaking oil].

The questions from the activity in the textbook structured the interaction of the students in Excerpt 03. The students answered the questions from the textbook one by one. During this process, the questions scaffolded the three students in Excerpt 03 to interact. The first six lines of the excerpts reveal that the students were figuring out what they had to do with the questions. For example, S2, S3 and S4 were discussing that they had to answer how they felt and one of them asked for a piece of paper to write down their answers. The planning process was carried out with the efforts of S2, S3 and S4. The ideas referring to oil spill, destroying the natural habitat in the Antarctica, damaging penguin eggs and long time for trees to grow if they are cut down were generated by the questions and by the students' language use. Despite the fact that the students mainly relied on the use of the mother tongue to respond to the questions, the collective construction of knowledge was facilitated and performed, which can be seen in their explanations for each reason they gave to the questions. The students were interacting in a community sharing and building upon each other's knowledge to answer the questions in the textbook.

## 5. Discussion

In general, the data from the students' journal entries indicate that most aspects of the textbooks were useful to the students and the mediation took forms of promoting the students' understanding with textbook contents, teachers' lessons, understanding meanings, contextualizing and visualizing. In most cases, the students' knowledge and language skills were facilitated. More specifically, the language use (semiotic signs), images, instructions, tasks and activities in the textbooks provide the students



with affordances to interact with the lessons and their understanding and others' form knowledge exchange groups. The majority of the participants claimed that with the instructions from the textbook tasks and activities, they were able to understand how to do the exercises/activities/tasks in the textbooks. In other words, the instructions, or the language used in the textbooks mediated the process in which the participants constructed meaning of what to do and how to solve the tasks while they were employing cultural tools, more specifically, the textbooks (Vygotsky, 1980).

Another cultural tool as revealed in the current study was the images, which were reported in the journal entries to facilitate the students' visualization. The images themselves are symbolic tools which Orland-Barak and Maskit (2017) considered to empower learners for logical problem solving, planning and evaluation, voluntary memory, and intentional learning. The images facilitate the students' imagination related to the tasks at hand and affect their behavior of understanding what to do and how to go about the task. The mediation via images and visuals in the textbooks concretize the students' cognition of the tasks. In the case of this study, it was claimed to happen most with the listening skills. Besides, the images were reported to engage the students in the lesson by giving them the motivation to work with the activities.

The findings of the current study confirm that the textbook was an important tool mediating instructional planning and students' learning a foreign language in terms of language skills, vocabulary and grammar, as found in the study by Allen (2008). The transcripts did not reveal any talk from the teacher when the students were working together with the textbooks, which indicates that they were scaffolded by the instructions or the activities in the textbooks. The textbooks served as a type of cultural representation of society (Pavlenko & Lantolf, 2000). Although published in a different country, they were able to mediate the mental processes of the students by engaging them into the tasks/activities, and activating their mental processes including decision making on what to do and and conceptualizing ideas to answer the questions (Morgan, 2011).

Regarding the meditating roles of the textbooks in the epistemic stance, the results of the current study reiterate the findings by Øygardslia and Aarsand (2018), which claimed that the use of several kinds of classroom artifacts to promote the students' knowledge of game designed and those by Bakken et al. (2020) who found textbooks mediated pupils' understanding of science. However, different from the studies reviewed in this paper, the current study looked into the transcript of the students'

interaction with the textbooks to examine the actual mediating processes. The transcript extracts revealed that the textbooks served to activate the students' initiatives and generate more use of ideas, vocabulary and language to express themselves to complete the tasks (e.g. Excerpts 01, 02, and 03). They mediated the interaction of the students' previous knowledge and the tasks at hand. They not only facilitated group interaction but also promoted collective knowledge construction.

Artifacts, according to Vygotsky (1980), can transform lower mental functions, including elementary perception, memory, and attention, into higher mental functions, such as conceptual thought, planning, and problem-solving. The students in this study reported both forms of mental functioning in their learning journals regarding how different aspects of the textbooks mediate their learning process. The recordings of the classroom illustrate the higher mental process as the students collectively figured out what they needed to do with the questions and how to answer the questions, as shown in Excerpts 02 and 03. Their conceptual thoughts of working places and protecting the environment in the Antarctica were also made use of via the mediation of the questions in the books.

The current study did not explore the students' language improvement, e.g., proficiency scores, and claimed language learning as it did not establish a longitudinal process to understand cognitive changes. However, the combination of audio recording and learning journals seem to supplement each other to reveal the roles of artifacts in engaging the students, provoking their understanding and language use in both the mother tongue and the target language, in other words, generating both lower and higher mental thinking process in the students.

## 6. Conclusion

This study was set out to examine the role of textbook mediation in EFL university classes. Data were collected from learning journals and recorded transcripts to analyze what aspects in English textbooks mediated the students' learning and how the process took place. It was reported in the students' journals that the textbooks played the mediating role to assist the students in understanding the lessons and especially the images in those textbooks helped them with visualization. As for learning language skills, the students found the tasks/activities as well as the instructions in the textbooks vital for them to practise language use. The analysis of

the recorded classroom transcripts revealed the actual process in which the students' previous knowledge of the topics/ tasks at hand was made use of for classroom interaction and task completion. Mediation took place when the tasks and ideas of other group members generated more thoughts of the students who jointly constructed knowledge. However, whether students' language proficiency is improved after the mediation remains a question for further studies.

Textbooks serve as educational tools in the classroom setting, and it seems hard to see the transformation in cognition in the students' minds brought about by such artifacts. However, one thing that can be visible and clearly perceived is that textbooks form the order for classroom interaction and task completion, which reflects that social order in a larger scale. On the one hand, textbooks restrict students' behaviors by structuring the given tasks to be completed by students. On the other hand, textbooks mediate their behaviours leading to forming new thoughts and expanded the activities, incorporating students' previous knowledge and cultural understanding into the interaction with other peers working on the same tasks. Despite some necessary restrictions of structuring language tasks, viewed in sociocultural theory, the textbooks provide affordances to scaffold learning, engage students in authentic tasks, and promote their epistemic interaction.

From the findings of the current study, it is suggested that the affordances of English textbooks should be made use of by both EFL teachers and students. Teachers can direct students' attention to the instructions, activities, and visuals in English textbooks. As students work on those artifacts, they are mediated to generate thoughts for the activities, especially when in interaction with other peers. With this kind of mediation, students' agency and knowledge in learning English will be promoted.

The current study did not go into a longitudinal process to document students' gain in English vocabulary and structures and whether students' knowledge or understanding gained from the mediation process was retained for later use. Further research thus can delve into those aspects.

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### **Conflict of interests**

The author declares that she has no conflict of interest.

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