

## Flourishing our Books Green: Content Analysis of an ELT Textbook

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### *Abstract*

*This study investigated the extent to which first-year secondary school Saudi ELT textbooks integrate ecological education content. ELT books integrate various themes to trigger language learners' interest. However, there is a dire need to include themes related to global issues or the troubled state of Mother nature. Hence the study focused on two environmental education themes: knowledge and awareness, attitudes and behaviors, and their sub-theme. The study used a conceptual content analysis design, and the textbooks were evaluated using a developed content analysis checklist. For the analysis, data were collected in the 2022/2023 school year. The results provided statistical evidence that integrating environmental education into the EFL textbook addressed the minimum level of learners' basic ecological knowledge, awareness, attitudes, and behaviors. Finally, this study suggested methods of how textbooks can help improve students' awareness of the environment, their attitudes, and their behavior.*

*Keywords: Awareness, Content analysis; Ecological knowledge and awareness, Ecological attitude and behavior, ELT textbooks.*

### Introduction

Among the current topics, issues related to Mother nature has drawn the attention of many people. Topics such as deforestation, global warming, and water pollution are frequently included in our daily news, raising our awareness of the troubled condition of our planet. Educational institutions, from kindergarten to university, value environmental education. In such circumstances, language teachers are in a position to make a difference by drawing attention to such issues. (Allmnakrah, A., & Evers, C. (2020).

Learning a foreign language creates chances to understand a new culture and society in all its dimensions. Yassin et al. (2020) claim that it's a great opportunity to discover the different ways in which other people communicate and behave. Through this learners can use

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English to interact and collaborate in their community and the world, particularly on issues related to citizenship and civic engagement. Learning the English language is essential for developing learners' critical thinking and problem-solving skills, making them effective agents who can contribute toward improving the environment.

Nkwetisama, (2011) and Yassin et al. (2019) affirmed that English textbooks must develop learners' thinking skills to help them engage in solving ecological and environmental dilemmas as global citizens. From this perspective, the English language textbooks of Saudi high schools can help spread knowledge on green culture and green lifestyle among students. The term environmental education (EE) emerged in the 1970s with a focus on raising awareness of the different types of pollution. As an active participant in the United Nations Conference Saudi Arabia has launched many green circulars, projects, and taken initiatives promoting EE and encouraging its integration into the educational curriculum.

Today some educators realize the importance of defending our earth; others might be doubtful about presenting ecological awareness in our textbooks because of its political implications. Moreover, language specialists do not see themselves as science educators, failing to perceive the environmental issues afflicting the earth. Furthermore, many teachers remain neutral or, in other words, indifferent to ecological matters and do not share their personal views with students. One of our goals as educators should be to help our pupils "get knowledgeable about topics that fundamentally touch their lives" (Cotton, 2016).

This study examined the existence of ecological education in first-year secondary school EFL textbooks in Saudi Arabia. According to the Ministry of Education in Saudi Arabia, teaching English in the second stage has 7 objectives. This research focuses on objective no.3, which promotes how students' critical thinking skills can enhance effective reading of English texts. (Faruk, S.M.G. 2014).

The objective of the textbook analysis is to reveal the awareness of ecological education (EE) inside this textbook by answering the following research questions:

- (1) What is the status of EE in EFL textbooks in the first-year secondary school in Saudi Arabia?
- (2) Do the EFL textbooks in first-year secondary schools in Saudi Arabia provide content that promotes environmental topics relating to knowledge and awareness, attitudes, and behaviors?
- (3) How are EE elements integrated with EFL textbooks in first-year secondary schools in Saudi Arabia?

## Review of Literature

Nowadays, topics connected to our planet (e.g., air pollution, global warming, biodiversity) are interlinked with basic human rights. In many parts of the globe, due to the scarcity of water, food, jobs, home, and illness, peoples' basic human rights are affected. This destroys society's security and peace (Schuchard and Weston, 2019).

English language teaching specialists have contributed to their learners' education, competitiveness, and economic status. Globalization has indeed helped nations to be more interdependent and interconnected. To show this even more concretely, Oxfam International ([www.oxfam.org](http://www.oxfam.org)) states that today's inadequate rainfall and disappearing glaciers are already touching millions of lives worldwide. Due to the scarcity of water supply, food production is affected, leading to famine. Oxfam predicts that future climate change will cause havoc on human rights. Flooding and sea level rise are likely to cause displacement or death of people living in coastal parts. In addition, the absence of a water supply will reduce hygiene efforts, leading to the spread of disease. These are just a few features that exemplify why global climate change is an essential topic for language students. (Pakasi, 2022)

With the multitude of challenges facing our earth today, raising pupils' ecological awareness and educating them about grassroots movements can get them involved in a relevant way. By integrating ecological education into language classes, teachers can (1) engage pupils in current issues that may have positive effects on their future; (2) teach pupils how they can contribute to a healthier and more sustainable planet; and (3) enhance language learning and help in effective communication. (Paterson, 2020).

The National Environmental Education Foundation (NEEF, [www.neefusa.org](http://www.neefusa.org)) describes three levels of ecological education: (1) ecological awareness, i.e., general acquaintance with important ecological issues; (2) personal behavioral knowledge that translates awareness into action to defend the atmosphere; and (3) ecological literacy, which allows students to learn elementary values and obtain skills for directing their practical projects (Paterson, 2020).

Many researchers have undertaken the development of textbooks as a learning resource. Studies by (Abdulaziz & Higgins, 2021; Suwito et al., 2020) state that textbooks can increase students' achievement compared to students treated with traditional learning. Digital learning resources are also a promising medium and learning resource, especially in this era where almost every student owns a digital device. (Nawi et al., 2020).

Once educators have committed to integrating ecological education into language lessons, gathering resources and planning lessons can be daunting. However, finding educational materials to sustain ecological education is easier than it used to be. Jacobs and Goatly (2012) reported that only two percent of activities printed in English-language textbooks between 1990 and 2000 covered ecological content. However, as concerns about the environment have enlarged around the earth recently, it is easy to find language teaching materials. Many language textbooks now include chapters on ecological issues. In addition, where available, educators can browse the Internet to find topics related to the environment that can be customized to meet their pupils' content and language learning needs.

Saudi Arabia has always believed in the power of education and has provided all the attention and resources needed to use the education sector as an enabler. Therefore, a Royal Decree was issued to include the Sustainable Development Goals in educational curricula to enable the realization of the Saudi Vision 2030 by increasing awareness and understanding of the sustainability concepts and topics that are sharpened in the education sector. This aims to integrate "Education for Sustainable Development" into public education curricula and would mean going well beyond what is currently offered in public schools. (Rana & Alayed, 2018)

As for the educational system in Saudi Arabia, Al-Dosary (2016) noted that the Saudi public education system needs a clear Education for Sustainable Development curriculum. He explained that even where some environmental issues are covered in the curriculum, they need to be more comprehensive and cover the environmental challenges, particularly those related to the Saudi environment. Concepts such as ecosystems, biodiversity, soil, and water are mainly present in the first grades of the science curriculum without any further practical activities to contextualize them. Other issues, such as pollution, energy efficiency, and climate change, should be discussed and mentioned more. Al-Dosary concluded that no clear Education for Sustainable Development integration strategy exists in the currently used curriculum.

Essa, S., & Harvey, B. (2022) conducted a study to explore the Kingdom of Saudi Arabia's policy on integrating Education for Sustainable Development (ESD) into the Saudi education system as part of the country's Vision 2030 strategy for sustainable development. They concluded that ESD integration is only discussed to a minimal extent in Vision 2030 and suggested that plans for ESD integration into education should be taken seriously.

There are narrow and wide definitions of educational materials. Materials generally refer to all educational materials learners use

inside and outside the classroom, including textbooks, audio and video recordings, teaching materials, and so on. On the surface level, materials only refer to textbooks used by learners for learning according to the syllabus. When looked at it closely, we see that in language education, materials, including textbooks, can enable language learning. (Chen, 2020). Textbooks are one of the essential elements of classroom teaching as well as a significant content and tool for learners to learn and teachers to teach. The vital function and role of textbooks in language teaching have been widely known both linguistically and culturally. (Davidson & Liu, 2020)

Nowadays, some researchers tried to tackle integrating ecological education (EE) in our textbooks. El Moussaouy et al. (2014) examined the significance of EE in Moroccan high school schooling, focusing on two subjects: biology and physics. The study used a comparative method through textbook analysis and questionnaires distributed to 90 instructors. He concludes that the presence of EE in the Moroccan curriculum is ordinary. Even when present, it is dominated by the cognitive dimension, emphasizing information transmission. They claimed that integrating EE into school practice cannot help students to adopt positive environmental attitudes and behaviors since EE topics are rare, especially in physics textbooks. The study concluded that the role of teachers is central to helping learners build basic knowledge about the environment and to develop EE skills and positive behaviors toward the environment.

Likewise, Hauschild et al. (2021) used a questionnaire addressed to learners, teachers, and educational policy-makers to test the quality of EE in high schools. They highlighted the difficulties of the current situation of EE in high schools. After considering the content and quality of EE and analyzing teachers' interventions in this regard, the researchers concluded that the place of the environment in Moroccan education needs to be more satisfactory. They also statistically concluded that students need to be sufficiently aware of the value of the environment. They claimed that school activities offer few chances for learners to increase their engagement in pro-environmental behaviors within schools and beyond.

Mliless and Larouz (2018) examined ELT textbooks in Moroccan high schools. The study inspected the usage of euphemisms in these texts to make students aware of educational matters. The researchers studied the degree of presence of eco-linguistic basics in the textbooks. They used content analysis methods. The researchers argued that euphemisms masked the alarming reality of environmental issues in the texts. In contrast, the lack of action in the texts means that their meaning is obscured.

## **Significance of the Study**

Today we see that the goals of Kingdoms Vision 2030 coincide with UNESCO's mission through the Kingdom's willingness to support educational, cultural, and scientific projects around the world, given its regional and international status and role in the empowerment of relations between Arab and Islamic countries and the Kingdom global agenda for sustainable development in the educational organizations. Essa, S., & Harvey, B. (2022).

The present research is important as it offers insights for EFL teachers, materials developers, textbook authors and rationality to increase learners' ecological awareness. Based on the present study's findings, the next steps to improve EFL textbook design through green education may provide prospects for rich inputs and meaningful outputs that may foster awareness towards environmental issues. In addition, the topics of the present study call for language support components that go hand in hand with the additional benefit of ecological educational content. Accordingly, the current study critically analyzed EFL textbooks with regard to ecological education topics that were considered in first-year secondary school textbooks. The results of this study are likely to show instructors ecological issues in textbooks, highlight problems, help textbook designers eliminate such problems, and contribute to the formation of educational strategies for ecological education.

## **Method**

The researchers chose a first-year secondary school due to their cognitive development. According to Jean Piaget's (1970) theory of cognitive development, adolescents (when learners are 16 years old) they are in the formal operative phase as they begin to think about logical, ethical, and community issues that require abstract thinking. Therefore, as abstract thinking appears, it will be rewarding and plentiful to thematically approach language teaching at this stage.

In the present study, conceptual content analysis was considered as an instrument to determine the presence of certain themes in text series. Thus, researchers established the existence and frequency of global environmental issues represented by words or phrases. (Bowen, 2019)

The present study has analyzed and described textbooks in terms of four levels of ecological education:

1- Ecological Awareness: Current research has linked public awareness to key ecological issues: pollution, resources, global warming, the environment, institutional endeavors, and ethics.

2- Ecological knowledge: In the current study, it is connected with personal behavioral knowledge that transforms awareness into action: analysis, definition, information, and samples.

3- Ecological Attitude: In our study, it is related to students' learning by enabling them to acquire the following skills: problem analysis, thinking ability, problem-solving ability, personal and social skills, project implementation, and handmade material.

4- Environmental behavior: In the present study, students acquire skills through experience and practice: decision-making, activities, campaigns, tree planting, photography/posters, associations, expert discussions, and speeches.

#### Instrument(s)

A review of previous relevant literature was performed. This review helped develop the research tool, which included a list of the four main domains of ecological education: knowledge, awareness, attitudes, and behaviors and their sub- theme. The tool consisted of (23) items that were reflected by (10 and 13), respectively.

The researchers applied a pilot study to ensure consistency in classifying textbook words. The researchers analyzed three lessons from the textbook and revised the results together to ensure that both had the same strategy in analyzing the textbook lessons. The researchers then analyzed the textbooks assigned to them. Two experienced teachers teaching English in public schools since 2010 collaborated with the researchers to analyze the data. The researchers calculated the reliability coefficient agreement between the analysts, the researchers, and the teachers. It was 0.86, 0.83, 93, and 0.85. The validity of the instrument was confirmed. The explanatory list was distributed to seven experts in the English language and experts interested in environmental education. They provided their comments. According to the reviewers' comments, the researchers have deleted some concepts and added others. Also, some phrases have been reclassified to suit the main domain. The final list of the research instrument included 23 items.

## Analysis and Discussion

The process of analysis took place in the second semester of 2022. The designated EFL textbooks involved both the first and second semesters of the first year of secondary education in the Ministry of Education (MOE) in Saudi Arabia. Each week, students in these classes must take at least four hours of English language instruction. The textbook analysis was carried out to find out the percentage of the terms mentioned in the textbook related to ecological education To start the

analysis process, the textbook was shared among the researchers. Each researcher analyzed the textbook separately. The analysis procedure involved counting the terms, concepts, and statements that represent: ecological awareness, knowledge, attitude, and behavior either implicitly or explicitly. Each recurrence was calculated in the textbook. The unit of analysis in this study is the words, phrases, or sentences that reflect an implicit or explicit account of ecological education existence. The repetitions were calculated to reflect the percentage of ecological education the textbook analyzed. The study results were presented in light of the study questions: (1) What is the status of Ecological Education in EFL textbooks in the first-year secondary school in Saudi Arabia? (2) To what extent do EFL textbooks in first-year secondary schools in Saudi Arabia provide content that promotes ecological issues relating to knowledge and awareness, attitudes, and behaviors? (3) How are EE elements integrated with EFL textbooks in first-year secondary schools in Saudi Arabia? However, the study was designed to analyze the assigned textbooks' texts and pictures. The textbook is called "MEGA GOAL1,2,3" and has 12 units for the whole year, Three semesters. The titles of the units are as follows;

Unit one: The Big Changes, Unit two: Career, Unit three: What Will Be, Will Be, Unit four: Art of Advertising, Unit five: Do Not You Hurt Yourself, Unit six: Take the Advice, Unit seven: You've Got the Mail!, Unit eight: The Wishful Thinking, Unit nine: The Complaints, Unit 10: What Happened I Wonder, Unit 11: If It Hadn't Happened, Unit 12: What They Have Said?

**Table (1) Ecological knowledge and awareness**

The items		Frequencies	Percentage
1	Definition and protection of the environment	1	1%
2	Renewable and non-renewable natural resources and eco-balance	0	0%
3	Examples of ecosystem pollution include air, water, and soil pollution, food contamination, pharmaceutical contamination, acoustic pollution, and visual pollution.	1	1%
4	Wildlife extinction, plant depletion, soil depletion.	1	1%
5	Water scarcity and depletion of natural resources	1	1%
6	Energy shortages, climate change, global warming	1	1%
7	Ecological projects and construction reports	0	0%
8	Ecologically relevant handmade materials	1	1%
9	Recognize environmental problems.	1	1%
10	Humans' relationship with the environment	1	1%



**Figure 1**

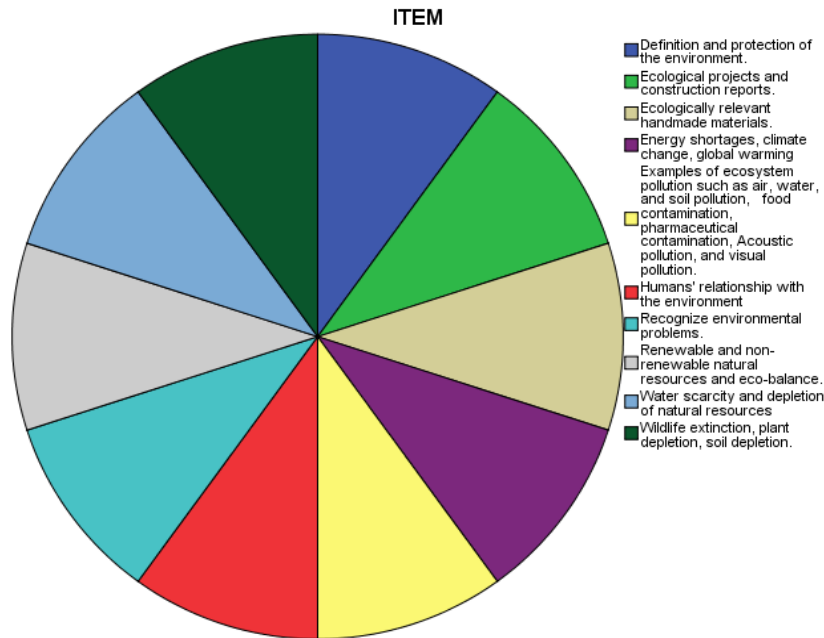


Table 1 shows ecological knowledge and awareness and how the students are not familiar with important ecological topics (such as water scarcity, global warming, pollution, and so on). It is seen that these topics have not been addressed in first-year secondary school EFL textbooks. In any case, awareness of environmental issues could not be implicitly or explicitly shown in EFL syllabuses. Only 1% of the textbook was devoted to ecological issues in the curriculum. For example, on page 6, Unit 1, an exercise asks the students to mark the global issue that the students think affects them the most. On page 15, titled "Time expressions for the past," a question was asked, what did you do last night? The answer was I watched a tv documentary about global warming. This is the only statement mentioned in the whole unit. In Unit 2, titled "Careers," some careers are mentioned such as biologists, environmental engineers, and archeological interns. Some environmental words are mentioned such as temperature, food, and accommodation. Appreciating the efforts of organizations to protect the earth and emphasizing moral issues were common at only 1%. Incorporating environmental issues into language teaching helps stimulate learning and the development of language skills. It is observed that if students' language skills lack awareness and knowledge of the world's leading issues, we cannot claim to learn English as a natural offering for meaningful use of the language. Authentic communication encourages language practice and discussion in the classroom. However, environmental awareness can

be improved through relevant activities that connect what is learned in the classroom and students' real lives (Jacobs, 2012)

**Table (2) Ecological attitude and behavior**

The items		Frequencies	Percentage
1	Emphasis on ethics over socio-economic gains.	1	1%
2	Clean-up campaigns in schools and neighborhoods, committees/associations of friends of the environment	1	1%
3	Tree planting.	1	1%
4	Triggering the efforts of environmental agencies, ministries, and non-governmental organizations	0	0%
5	Displaying Photos/items on competitions about environmental issues.	1	1%
6	Invitation of specialists to give lectures on environmental issues	0	0%
7	Waste recycling and use of clean energy	1	1%
8	Combating environmental pollution and desertification	1	1%
9	Indicating the efforts of experts to protect our earth	0	0%
10	Rationalization of electricity, water, pesticides, and fuel consumption.	0	0%
11	Combating the use of chemical fertilizers	0	0%
12	Enacting and applying environmental laws and legislation	0	0%
13	Preserving the beauty of the environment	1	1%

**Figure 2**

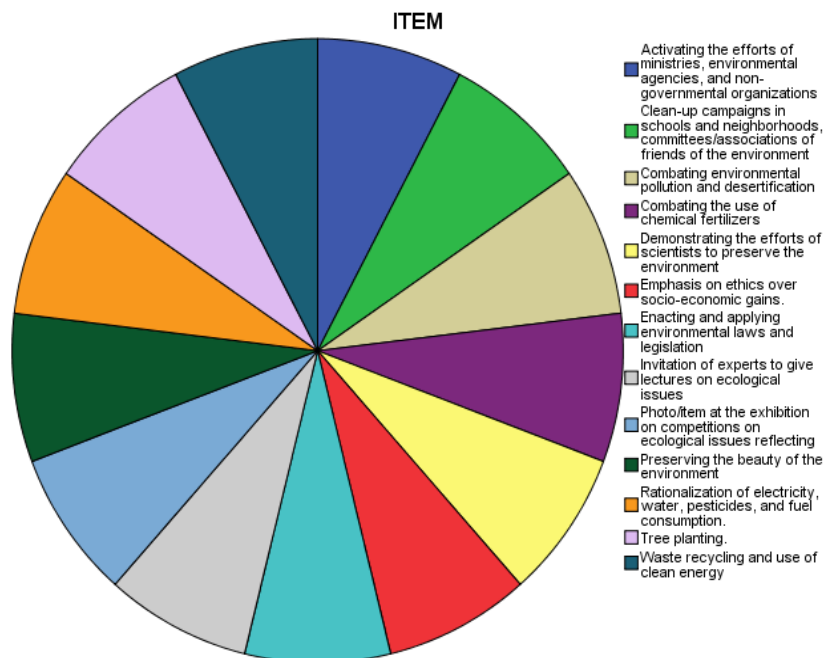


Table 2 and figure 2 show that the implanted ecological attitude and behavior could not be displayed implicitly or explicitly but at a partial rate of only one percentage in EFL textbooks. Ecological attitude and behavior require understanding the whole universe and its related anxieties. This knowledge can contain basic information about the environment. For example, a reading comprehension text about contamination might cover information that would develop learners' ecological attitudes and behavior toward pollution and their likely explanations. This seems problematic as one needs to be aware of the importance of acquiring environmental skills while expressing this in English. In this case, the students can use their language ability to write pamphlets informing their classmates about the risks posed by the depletion of the earth's properties. Conversely, the analysis showed that ecological projects and construction reports are seven times more than the skills commonly embedded in EFL textbooks. Ecological skills, which are related to thinking skills, seldom occur. (Guo, 2020). The ecological contribution in the present study has been characterized by the development of learners' sense of acting responsibly toward environmental issues. This is mostly challenging in the Saudi EFL textbook.

Table 2 also reveals low levels of environmental input but that of "Decision making on environmental themes," which occurred once. The aim of integrating environmental education topics into English lessons was, on the one hand, to enhance the environmental input to global ecological issues and also support the learning of new words and their meanings. (Paterson, 2010).

We can summarize the results of the present study as presented in Table 2, which show minimal effort to consider ecological education. Minimal occurrences are evident in terms of contribution, participation, or even knowledge. The table also shows less than moderate cases of ability or sensitivity to ecological issues.

According to Tang (2019), environmental instruction should be crucial for every person in the world, and it should be repeated across disciplines since the environment involves all subjects. This proposes that EFL textbooks should be designed globally on the ecological environment. The current study has shown that environmental instruction is not highlighted in Saudi EFL books despite its importance in offering learners many chances for informative language use.

There might be opposing views regarding this, such as what should be done to improve environmental instruction to improve learners' English communication. The study aimed to prioritize integrating environmental issues into the EFL textbooks. The difficult correlation between environmental issues and skills, EFL values, and syllabus improvement made this present study substantive and inspirational.

The researchers recommended to include a full unit in the textbook related to topics based on the environment. The unit will include the following lessons: Lesson one: the definition of the environment and how to protect it. Lesson two: Examples of pollution - air, water, and soil pollution, food contamination, pharmaceutical contamination, acoustic pollution, and visual pollution. Lesson three: ecological problems, wildlife extinction, plant depletion, soil depletion, and non-renewable resources. Lesson four: Combating environmental pollution and desertification. Lesson five: reading passages about a variety of environmental topics. Through all these lessons, the textbook will provide a list of “green” curricula focusing on green content, including ecological resources, videos, and art projects at [www.greeneslresources.weebly.com](http://www.greeneslresources.weebly.com), where students can practice reading and speaking while learning. In his study, Paterson (2011) emphasized that environmental instruction can enhance learners' academic accomplishment and literacy and sustain learners' motivation, critical thinking skills, and improve attitudes toward learning.

## **Conclusion and Implication**

The current study showed a need for global environmental issues in EFL textbooks. The study recommended including a unit to enhance the learners' awareness of ecological issues and direct them to get an encouraging attitude toward our environment. Meanwhile, language instructors should have a crucial role. They must increase students' enthusiasm and stimulate their self-autonomy in learning. Instructors should refrain from updating their textbooks. Instead, they should generate activities based on English language learning and discuss ideas and facts about issues disturbing our world. Later, such EFL teachers may sponsor additional resources to sustain overarching issue-based units supporting environmental instruction. They should realize the new role of English language in the current period, create a new EFL teaching perception, and advance their values. Also, teachers can receive training on the perception of capturing ecological content in EFL textbooks. English instructors can also proceed with cooperative instruction with instructors in other ecology-related subjects (such as geography and science). Therefore, language teachers and students can collaborate to make the universe a better place to live in.

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