

Copyright: The author/s

This work is licensed under a CC-BY 4.0 license

(*) Corresponding author

Original research article

DOI: 10.20544/AISC.1.1.25.P06



ENHANCING VOCABULARY ACQUISITION THROUGH NLP: A CASE STUDY OF SUSTAINABILITY-RELATED LEXIS

Elena Shalevska*

Faculty of Education – Bitola
University “St. Kliment Ohridski” – Bitola
Email: elena.shalevska@uklo.edu.mk

Bisera Kostadinovska-Stojchevska

Faculty of Education – Bitola
University “St. Kliment Ohridski” – Bitola
Email: k_bisera@yahoo.com

Abstract

This qualitative paper explores the use of Natural Language Processing (NLP) tools, specifically the artificial intelligence (AI) model ChatGPT, in supporting vocabulary acquisition for English as a Second Language (ESL) learners. The case study, which serves as a cornerstone of this research, aimed to provide answers for the research questions: Can NLP tools help vocabulary acquisition in EFL settings? and What are the perceived benefits and challenges of incorporating AI in sustainability-related vocabulary learning? The study, as such, involved 25 undergraduate students from the department of English Language and Literature in the Faculty of Education in Bitola, N. Macedonia. During the sustainability-themed lesson, students worked on AI-generated texts and exercises: a B2-level text on sustainability in fashion, followed by vocabulary exercises designed to practice the use of specialized terms such as “ethical labor” and “fast fashion”. The students also interacted with ChatGPT directly, “interviewing” the model about sustainability-related topics. Pre- and post-activity self-assessments demonstrated significant improvement in students’ knowledge of sustainable fashion, with most students reporting an improved understanding of the subject-matter. The obtained results indicate that NLP tools like ChatGPT can enhance vocabulary acquisition by providing interactive and adaptable learning opportunities.

Keywords: Natural Language Processing (NLP); English as a Foreign Language (EFL); Vocabulary Acquisition; Sustainability; ChatGPT; AI in Education; Artificial Intelligence

INTRODUCTION

Sustainability and environmental issues have become an important part of education and educational curriculums worldwide. As awareness of their importance grows, so does the understanding that education, and by extension, language education, can help raise students’ awareness. One important part of the sustainability discourse is the notion of sustainable fashion. Fashion is one big part of today’s economies, estimated to be worth over \$200 billion US (Gaubys, 2023), with fast-fashion being the chief element of the consumption of over 60 million tons of clothing worldwide (House of Commons, 2019). Fast fashion, as such, contributes up to 10% of global carbon emissions (Eder-Hansen, and Tärneberg, 2017).

Though the concept of sustainable fashion in regards to fast fashion may seem simple, it is inherently difficult to define. According to Palm (2022) the term “sustainability” in itself is too broad, and thus, problematic. The vagueness of the term also presents a problem for English as a Foreign Language (EFL) learners, as understanding the vocabulary of sustainability presents both a linguistic and cognitive challenge for them.

The language classroom has always accounted for these challenges, and even more so now, with emerging technologies Natural Language Processing (NLP) models like ChatGPT becoming more and more common in education. These advanced models of AI (Artificial Intelligence) can completely transform the learning process (Fang et al., 2023) and can support language learners by providing customized, and interactive educational material targeting specialized vocabulary (like the one to do with sustainability in fashion) (British Council, 2023). They can simulate real-world interactions to help students learn new vocabulary in context and offer personalized feedback that will help them learn from their mistakes.

Recognizing the immense potential of NLP models, especially OpenAI’s ChatGPT, this case study focuses on how AI can support vocabulary acquisition – especially vocabulary related to sustainable fashion – in an EFL context. By examining how this chatbot facilitated lexis acquisition, this study provides insights into the role that AI models can play in the language classroom.

1. Literature Review

Vocabulary, or lexis acquisition is a crucial aspect of language learning, particularly for EFL learners who must expand their lexicon in order to improve their overall language skills. Throughout the years, various approaches to vocabulary instruction have been researched by a number of scholars, including explicit teaching of word meanings, indirect learning through exposure, and the use of technology to reinforce vocabulary in context (Garden, 2022).

Effective vocabulary learning, according to Nation (2001), involves understanding all the “layers” of a particular word: its form, meaning, and actual use. Thus, to actually learn a word, EFL learners must be able to recognize it, understand its meaning (either literal meaning or meaning in context), and use it appropriately in all kinds of communication, spoken or written.

Sustainability and sustainability-related lexis as its subset, have been an important part of students’ overall vocabulary acquisition process, and by extension, their overall education journey. Recognizing their importance, leading universities, such as the University of Oxford in the UK, have actively worked on endorsing education for sustainable development (ESD), sustainability in teacher education, and sustainable teaching practices overall (Filho et al., 2020).

Sustainability lexis, within the general ESD goals, can be considered part of a larger discursive representation in the language classroom. Oostendorp (2018), following Wodak’s (2009) discourse-historical approach, suggests that discursive representations are the cultural and social practices that are specific to a certain time and context, and these practices are reflected in the text. And since our world’s context is undeniably marked by sustainability issues, comprehensive representation in the language classroom should reflect that.

Regardless of its focus (on sustainability or not!), vocabulary makes an important part of EFL instruction. In recent times, incorporating technology into vocabulary acquisition has shown promising results, with the growing popularity of models such as ChatGPT sparking significant research interest.

2.1. AI in Language Teaching

AI has rapidly become a key element in the language classroom, providing students with new ways to learn and interact with language in a natural-like setting. According to Zou et al. (2021), AI tools such as ChatGPT can “*create opportunities for personalized learning and instant feedback, helping learners practice language skills in a dynamic, real-time setting*” (Zou et al., 2021). The adaptability that these models offer can be particularly beneficial for vocabulary learning.

AI models can also be beneficial when it comes to “contextualized learning” as they can present vocabulary in a more practical way, as part of larger discourse. As highlighted by Meurers et al. (2020), AI models’ ability to simulate authentic language use can present learners with a unique interactive and immersive opportunity to improve their vocabulary skills. Of course, this is particularly important when teaching specialized vocabularies, such as the sustainability-related terms, central to this paper. Other researchers also note the benefits of using ChatGPT in the EFL classroom (Jiang, 2022; Warner, 2022; Hockly, 2023; Shalevska, 2023 etc.), especially in vocabulary acquisition (Chingakham&Taruk, 2024; Wu, Li, et al., 2024 etc.) yet all note that the implementation of this technology in the language classroom must be done carefully as it presents both students and teachers with a significant amount of challenges such as issues to do with academic misconduct (Trachtenberg, 2023; Shalevska & Kostadinovska-Stojchevska, 2024).

Alharbi and Khalil (2023) study the students’ and teachers’ perspectives in the context of English as a Second Language (ESL) vocabulary learning. Their study’s findings suggest that students generally have a positive attitude towards the use of AI in vocabulary learning, while teachers’ attitudes vary significantly due to factors such as age and teaching experience.

Although numerous studies center around NLP, AI, ChatGPT and language learning etc., as of now (November, 2024), there are no easily available studies that specifically focus on NLP’s ability to enhance sustainability-related lexis acquisition, in particular.

2. Methodology

To study the potential benefits of implementing NLP models into the language classroom, especially in vocabulary-acquisition related to *SDG (Sustainable Development Goal) 17 – Responsible consumption and production*, a case study was conducted (Mills et al, 2010), within the larger qualitative research paradigm that focuses on “*studying things in their natural settings and attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them*” (Denzin & Lincoln, 2005)

Yin (1994, 2003) defines case studies as empirical research that investigates phenomena in an actual, real context, while Benbasat et al. state that case research can be especially useful in the beginning stages of both research and theory (Benbasat et al., 1987). The case study implemented for the purposes of this paper includes a convenience sample of 25 undergraduate students enrolled in the Modern English Language 1 (MEL 1) course at the Faculty of Education in Bitola, with a pre-determined approximate level of proficiency of B2, based on the Common European Framework of Reference for Languages (CEFR).

The study seeks to answer the following research questions:

1. *Can NLP tools enhance overall vocabulary acquisition?*
2. *What are the perceived benefits and challenges of incorporating AI in sustainability-related vocabulary learning?*

Before the start of the NLP-enhanced activities, the sample of students were asked to self-assess their knowledge of sustainable fashion using a three-point scale:

1. I know nothing about it
2. I know something about it

3. I know a lot about it.

To introduce the topic of sustainable fashion, a B2-level text was generated using ChatGPT. The text focused on the sustainability issues in fashion like: fast fashion, ethical labor, secondhand shopping, and sweatshops. The text was a rather simple overview of these topics and it incorporated sustainability-related vocabulary.

Three vocabulary exercises were then created to reinforce the target words:

1. Fill-in-the-Blank Exercise – in which students had to insert sustainability-related terms into sentences based on context.
2. Matching Exercise – in which students had to match sustainability terms to their definitions (for instance, matching “fast fashion” with “clothing production that is mass-produced quickly and cheaply”).
3. Short Answer Questions – in which students had to write short answers to given questions using the target vocabulary (e.g., “How does second-hand shopping benefit the environment?”).

3.1. Procedure

The lesson, held on 21.10.2024, was structured as follows:

- Pre-Activity Self-Assessment, described above;
- Introduction to the concept of sustainability in fashion using a ChatGPT-generated text;
- AI-generated Vocabulary Exercises designed to reinforce the use of target terms.
- “Interview” with ChatGPT as a “makeshift expert” on sustainable fashion.
- Post-Activity Self-Re-Assessment with which students reassessed their knowledge of sustainable fashion using the same categories listed above.

The class materials generated by ChatGPT-3.5 were generated using the following prompt:

[I am designing a lesson to improve my B2-level EFL students' knowledge of sustainable fashion and sustainability-related vocabulary. I need you to generate materials for this lesson:

Firstly, I'll need a text:

Write a 400-500 word general text on sustainable fashion.

Make sure the text includes the following key terms and phrases: ethical labour, fast fashion, sustainability, second-hand shopping, and other related terms.

Keep the language accessible for B2-level learners.

I will also need some vocabulary exercises:

Create three different vocabulary exercises to reinforce the target words and phrases I mentioned:

1. *Fill-in-the-Blank Exercise: Write sentences with blanks where students will insert the correct sustainability-related term based on context.*
2. *Matching Exercise: Provide a list of terms and their definitions, asking students to pair each term with its corresponding definition.*
3. *Short Answer Questions: Write 3-5 questions related to the text that require students to respond with short answers, using the target vocabulary in their responses.*

Please assume the role of a seasoned expert in sustainable fashion when drafting the text. Make sure you avoid unnecessary jargon or overly complex sentence structures]. The text and the exercises are available in full in Appendix 1.

The “interview”, in the final stage of the case study/lesson, took place in a “new chat” in the model’s dashboard, with the prompt: *[You are to answer a series of questions as an expert in sustainable fashion. Please only answer as a seasoned expert].*

It is important to note that the lecturer didn’t intervene with the questions of the students and wrote them as they were, with no regards to correct or incorrect grammar.

3.2. Data Collection and Analysis

Data was, thus, collected through two primary methods: 1) The pre- and post-activity self-assessments used to measure students’ perceived improvement in knowledge about sustainable fashion, and 2) General classroom observations. The data from the self-assessments was analyzed quantitatively by comparing the pre- and post-activity results. Qualitative observations of student behavior, engagement, and vocabulary use during the lesson were also noted.

3.3. Ethical Consideration

This study adhered to ethical standards to ensure the privacy of all student participants. All data collected from students during the pre- and post-assessment was kept strictly confidential. Furthermore, prior to participation, students were informed that their lesson would serve as a case study for the purposes of a research paper. Participation was voluntary, and students were given the option to leave the lesson and withdraw at any stage.

3.4. Conflict of Interest

The authors hereby declare no conflicts of interests.

4. Results and Discussion

During the 90 minute lesson, the following insights were gained:

4.1 Pre- and Post-Activity Self-Assessments

To determine whether there’s been any improvement in perceived knowledge about SDG 17, or more particularly, sustainable fashion, two self-assessment activities were carried out and students had to assess their understanding on a three-point scale both pre, and post-lesson:

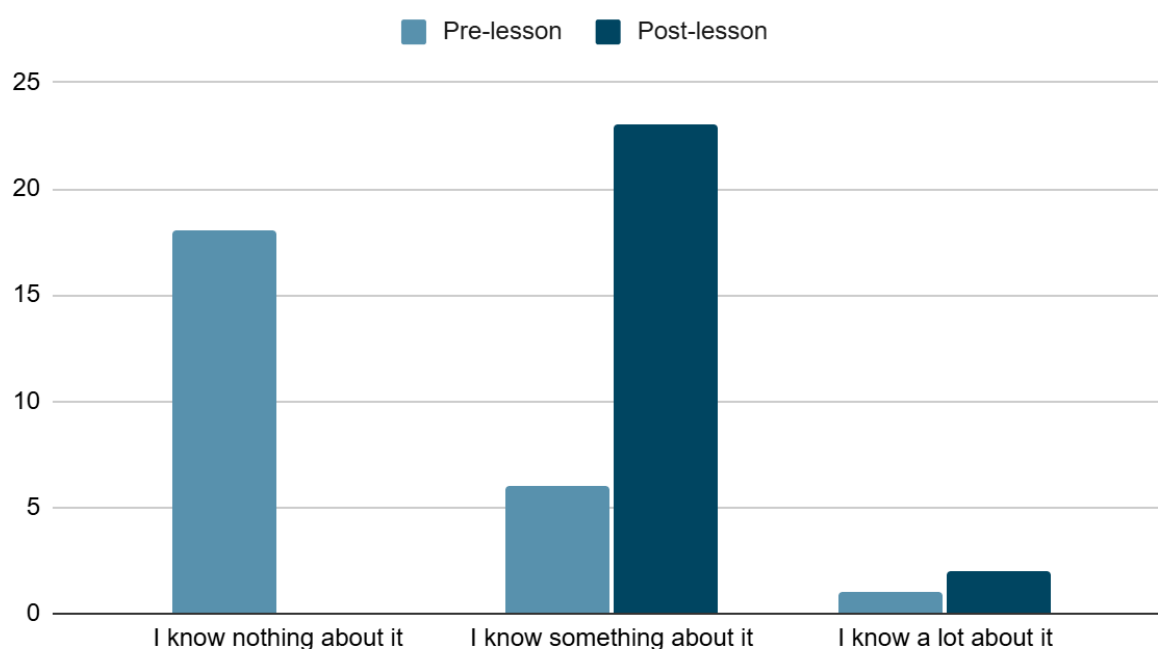
- I know nothing about it
- I know something about it
- I know a lot about it.

The self-assessment data showed significant improvement in students’ perceived knowledge of sustainable fashion after completing the NLP-generated activities. Before the lesson, 18 out of 25 students reported knowing “nothing” about sustainable fashion – a grand total of over 72% of the total number of participants. After engaging with the text, completing the vocabulary exercises, and interacting with ChatGPT, these figures shifted dramatically, and over 96% of the students reported improvements (Table 1)

Table 1: Pre- and Post-Intervention Self-Assessment

Pre-Activity Self-Assessment		Post-Activity Self-Assessment	
Statement	No. of students (out of 25)	Statement	No. of students (out of 25)
I know nothing about it	18 (72%)	I know nothing about it	0
I know something about it	6 (24%)	I know something about it	23 (92%)
I know a lot about it	1 (4%)	I know a lot about it	2 (8%)

These results (also shown in Graph 1 to better illustrate the differences) indicate a significant increase in knowledge, with the majority of students moving from “I know nothing” to “I know something,” and a small number reaching the highest level of perceived understanding.



Graph 1: Graphic representation of Pre- and Post-Intervention Self-Assessment Data

4.2. Vocabulary Acquisition

The in-class observations also yielded interesting insights. The exercises and interactions with ChatGPT revealed that students managed to understand and use sustainability-themed vocabulary in real-world contexts with ease. During the fill-in-the-blank and matching exercises, students demonstrated improved accuracy in using key terms.

During the chatbot interaction, students were observed to use the newly-acquired vocabulary in their questions and follow-up questions. The chatbot provided detailed responses that reinforced their understanding, allowing students to further practice the target vocabulary.

Some of the questions students asked included:

1. How to know that clothes will be durable and are high quality?
2. Aren't thrifters worried about who the item came from and what things it had gone through?
3. What companies use sweatshops and why?
4. Are designer clothes sustainable? // Which designer brands are sustainable?
5. How to know if something is sustainable? // Can you ever be 100% sure?
6. What are the latest trends in sustainable fashion?

By interacting with the chatbot, students were exposed to new language forms and had the opportunity to practice using terms in a conversational format – something that was meant to mirror real-world conversations and use of these key terms.

Another noteworthy matter that needs to be mentioned is the time-efficacy. This is an added advantage of using NLP tools like ChatGPT in education. For instance, the generation the class materials for this case study (both the text and vocabulary exercises) took **less than 3 minutes**.

It is also important to note that the informal feedback gathered from students was generally positive. Many students reported that interacting with ChatGPT helped clarify difficult concepts. Some students mentioned that the AI tool made the learning of new vocabulary more interesting, yet one said that the chatbot's answers “got repetitive after a while”.

The results of this case study align with existing research on the benefits of using AI tools in language learning. As Zou et al. (2021) noted, AI tools like ChatGPT provide opportunities for personalized and adaptive learning, which was evident in the case-study/lesson, as well. Furthermore, the significant increase in student knowledge after engaging with the chatbot and vocabulary exercises highlights the potential of NLP tools to aid in the acquisition of specialized vocabulary. As sustainability-themed content may be scarce, AI tools could serve as valuable resources for introducing complex concepts (and even helping develop critical thinking about these topics).

CONCLUSION

Sustainability-related lexis acquisition can indeed be improved by NLP, this study's findings suggest. NLP tools such as ChatGPT seem to be able to enhance the foreign language learning process and support students' understanding of sustainability-related topics. The case study implemented for the purpose of this paper demonstrated that AI tools can play a significant role in language education. They can offer interactive, real-world-related exercises and texts that are customizable and fully adaptable and can produce relevant class materials in a matter of seconds. Moving forward, further research could explore how AI can be refined to better meet the needs of different learners and groups and how similar methods can be applied to other specialized lexis in the language classroom.

REFERENCES

1. Alharbi, K., and L. Khalil. "Artificial Intelligence (AI) in ESL Vocabulary Learning: An Exploratory Study on Students and Teachers' Perspectives." *Migration Letters* 20, no. S12 (2023): 1030–45.
2. Benbasat, I., D. K. Goldstein, and M. Mead. "The Case Research Strategies in Studies of Information Systems." *MIS Quarterly* 11, no. 3 (1987): 369–86.

3. British Council. *Shaping the Future: Artificial Intelligence and the English Language Teaching Industry*. Accessed April 20, 2023. <https://www.britishcouncil.fr/blog/shaping-future-artificial-intelligence-english-language-teaching>.
4. Chingakham, D. S., and K. Tamuk. "Using Artificial Intelligence (AI) in English Vocabulary Development for Higher Secondary School Students." *Research Square*, 2024. <https://doi.org/10.21203/rs.3.rs-4500329/v1>.
5. Denzin, N. K., and Y. S. Lincoln, eds. *The SAGE Handbook of Qualitative Research*. 3rd ed. Thousand Oaks, CA: Sage, 2005.
6. Fang, T., S. Yang, K. Lan, D. F. Wong, J. Hu, and L. S. Chao. "Is ChatGPT a Highly Fluent Grammatical Error Correction System? A Comprehensive Evaluation." *arXiv*, 2023. <https://doi.org/10.48550/arXiv.2304.01746>.
7. Filho, W. L., J. H. P. P. Eustachio, et al. "Sustainability Leadership in Higher Education Institutions: An Overview of Challenges." *Sustainability* 12, no. 9 (2020). <https://doi.org/10.3390/su12093761>.
8. Garden, P. D. *Vocabulary Instruction in the Early Grades*. Region 10 Education Service Center, 2022. Accessed October 30, 2024. <https://files.eric.ed.gov/fulltext/EJ1367392.pdf>.
9. Gaubys, J. "Apparel Industry Statistics (2014–2027)." Oberlo, 2023. Accessed November 1, 2024. <https://www.oberlo.com/statistics/apparel-industry-statistics>.
10. Hockly, N. "Artificial Intelligence in English Language Teaching: The Good, the Bad and the Ugly." *RELC Journal* 54, no. 2 (2023): 445–51. <https://doi.org/10.1177/00336882231168504>.
11. House of Commons. *Fixing Fashion: Clothing Consumption and Sustainability*. Sixteenth Report of Session 2017–19, HC 1952. London: House of Commons, 2019. Accessed October 30, 2024. <https://publications.parliament.uk/pa/cm201719/cmselect/cmenvaud/1952/report-summary.html>.
12. Jiang, R. "How Does Artificial Intelligence Empower EFL Teaching and Learning Nowadays? A Review on Artificial Intelligence in the EFL Context." *Frontiers in Psychology* 13 (2022). <https://doi.org/10.3389/fpsyg.2022.1049401>.
13. Kapranov, O. "The Discourse of Sustainability in English Language Teaching (ELT) at the University of Oxford: Analyzing Discursive Representations." *Journal of Teacher Education for Sustainability* 24, no. 1 (2022): 35–48. <https://doi.org/10.2478/jtes-2022-0004>.
14. Mills, A. J., G. Durepos, and E. Wiebe, eds. *Encyclopedia of Case Study Research*. Thousand Oaks, CA: SAGE Publications, Inc., 2010. <https://doi.org/10.4135/9781412957397>.
15. Oostendorp, M. "Extending Resemiotization: Time, Space and Body in Discursive Representation." *Social Semiotics* 28, no. 3 (2018): 297–314. <https://doi.org/10.1080/10350330.2017.1295849>.
16. Palm, C. "Sustainable Fashion: To Define, or Not to Define, That Is Not the Question." *Sustainability: Science, Practice and Policy* 19, no. 1 (2023). <https://doi.org/10.1080/15487733.2023.2261342>.
17. Shalevska, E., and B. Kostadinovska-Stojchevska. "Ethics in Times of Advanced AI: Investigating Students' Attitudes Towards ChatGPT and Academic Integrity." *International Journal of Education Teacher* 27 (2024). <https://doi.org/10.20544/teacher.27.08>.
18. Shalevska, E. "English Teaching Just Got an Upgrade: How AI Is Revolutionizing TESOL." *International Journal of Education Teacher* 25 (2023). Accessed November 2, 2024. <https://ijeteacher.com/index.php/ijet/article/view/33>.
19. Trachtenberg, B. "ChatGPT, Artificial Intelligence, and Academic Integrity." Accessed October 14, 2024. <https://oai.missouri.edu/chatgpt-artificial-intelligence-and-academic-integrity>.
20. Warner, B. "AI for Language Learning: ChatGPT and the Future of ELT." Accessed November 1, 2024. <http://blog.tesol.org/ai-for-language-learning-chatgpt-and-the-future-of-elt>.
21. Watson, D., J. Eder-Hansen, and S. Tärneberg. *Call to Action for a Circular Fashion System*. Copenhagen: Global Fashion Agenda, 2017. Accessed October 29, 2024. <https://refashion.fr/eco-design/sites/default/files/fichiers/A%20call%20to%20action%20for%20a%20circular%20fashion%20system.pdf>.

22. Wodak, R. *Discursive Construction of National Identity*. Edinburgh: Edinburgh University Press, 2009.
23. Wu, L., K. Li, M. Yu, and Y. Lin. "Application of Artificial Intelligence in Teaching English as a Foreign Language: Progress, Challenges, and Trends." *English Language Teaching and Linguistics Studies* 6, no. 4 (2024): 215. <https://doi.org/10.22158/eltls.v6n4p215>.

Appendix 1: ChatGPT Generated Text and Vocabulary Exercises

Sustainable Fashion: Making Choices That Matter

The impact of fashion on the environment is enormous, and fast fashion plays a major role in this. Fast fashion refers to the rapid production of clothing to keep up with trends, with companies like Zara and H&M releasing new collections every few weeks. While this makes trendy clothing affordable, it comes at a high cost: the fashion industry produces 10% of the world's carbon emissions—more than all international flights and shipping combined. Additionally, fast fashion uses vast amounts of water. For example, it takes around 2,700 liters of water to produce a single cotton T-shirt, enough to meet one person's drinking needs for over two years.

The low prices of fast fashion often reflect poor ethical labor practices. In some factories, garment workers—especially in countries like Bangladesh, Cambodia, and India—are paid below minimum wage and may work long hours in unsafe conditions. In 2013, the tragic collapse of the Rana Plaza factory in Bangladesh exposed the poor working conditions faced by millions of workers producing cheap clothing. Since then, there has been more focus on ensuring fair wages and safe environments, but unethical labor practices remain a major issue in the industry.

In contrast, sustainability in fashion means designing, producing, and distributing clothing in ways that protect both the environment and people. Sustainable brands such as Patagonia and Reformation focus on using eco-friendly materials like organic cotton, recycled polyester, and sustainably sourced wool. Patagonia, for instance, is committed to repairing and recycling its products, and it even encourages customers to buy less and repair what they own. Through these efforts, Patagonia aims to reduce waste and lessen its environmental footprint.

Another important approach to sustainable fashion is second-hand shopping. Buying pre-owned clothes from thrift stores, online platforms like Depop or ThredUp, or vintage shops extends the lifespan of clothing, which reduces waste and the demand for new production. Research shows that buying second-hand clothing saves 82% of the carbon emissions that would result from manufacturing new items. Furthermore, the global second-hand market is growing rapidly and is expected to reach \$77 billion by 2025, reflecting the increasing popularity of this sustainable option.

In making informed decisions about clothing, consumers play a powerful role. By supporting brands that prioritize ethical labor, choosing quality over quantity, and exploring second-hand shopping, we can help shift the industry toward a more sustainable future. Every purchase we make is a vote for the kind of world we want to live in—one that respects both the planet and the people who make our clothes.

Vocabulary Exercises

A) Fill-in-the-Blank

Complete the sentences with the following terms: *fast fashion, ethical labor, sustainability, second-hand shopping, eco-friendly, transparency, recycling, organic cotton, upcycling*

1. Brands that prioritize _____ provide fair wages and safe working conditions for their employees, helping ensure a fairer production process.
 2. Companies like Zara and H&M are often associated with _____, a production system that mass-produces inexpensive, trendy clothing at high speed.
 3. _____ in fashion refers to practices that focus on protecting the environment and treating workers fairly, aiming to reduce waste and pollution.
 4. Buying clothes at thrift stores is an example of _____, which is a sustainable way to reduce demand for new clothing production.
 5. Some companies are embracing _____, meaning they use materials like bamboo, organic cotton, or recycled polyester to lessen environmental impact.
 6. To encourage _____, some brands allow customers to bring back old clothes so that materials can be reused to make new items.
 7. _____ is important in sustainable brands because it allows consumers to know exactly how and where their clothes were made.
 8. Clothes made from _____ are popular among eco-conscious shoppers because this material is grown without harmful pesticides.
 9. _____ is the creative reuse of old clothes or materials to make new items, adding value and reducing waste.
-

B) Matching Exercise

Match each term to its correct definition.

Fast Fashion	Buying pre-owned or vintage clothing to reduce demand for new items and minimize waste.
Ethical Labour	A type of plant grown without the use of synthetic pesticides, fertilizers, or genetically modified seeds.
Sustainability	Transforming old or discarded items into new products with added value.
Second-Hand Shopping	Openness from companies about their materials, processes, and labor practices.
Eco-Friendly	The process of converting waste materials into new materials or products.
Transparency	Products or practices that are designed to have minimal negative impact on the environment.
Upcycling	A practice that aims to reduce environmental impact by considering social and environmental factors in production.
Recycling	A type of production that ensures workers are treated fairly, receive fair wages, and work in safe conditions.
Organic Cotton	Clothing production that is mass-produced quickly and cheaply to meet fast-changing trends.

C) Short Answer Questions

Answer each question in one or two sentences using the target vocabulary.

1. What are some environmental downsides of fast fashion?
2. How does second-hand shopping benefit the environment?
3. Describe what ethical labor practices mean in the fashion industry.
4. Why is transparency important for sustainable fashion brands?
5. What is one advantage of using eco-friendly materials like organic cotton in clothing production?
6. Explain the difference between upcycling and recycling in the context of sustainable fashion.
7. Name one sustainable fashion brand you know and describe one of its sustainable practices.
8. Why might a consumer interested in sustainability look for products made with organic cotton?
9. How can repairing or upcycling clothing contribute to a more sustainable wardrobe?