

# Eco-composition: Fostering Sustainability in Post –Pandemic Period

Shifan Thaha Abdullateef<sup>1</sup>

<sup>1</sup> Associate Professor of Applied Linguistics, Department of English, Prince Sattam bin Abdulaziz University, Alkharj, Saudi Arabia

Correspondence: Dr. Shifan Thaha Abdullateef, Associate Professor of Applied Linguistics, Department of English, Prince Sattam bin Abdulaziz University, Alkharj, Saudi Arabia. E-mail: s.abdullateef@psau.edu.sa ORCID ID-0000-0002-2321-4904

Received: June 10, 2024      Accepted: July 26, 2024      Online Published: December 20, 2024

doi:10.5430/wjel.v15n3p25      URL: <https://doi.org/10.5430/wjel.v15n3p25>

## Abstract

COVID-19 pandemic has aggravated the challenges towards achieving Sustainable Development Goals (SDGs). The study aims to examine the effectiveness of Eco-composition to develop awareness and responsibility among the university students towards a sustainable future. Quasi-experimental research design was adopted for the study. Accordingly, 49 students pursuing first level of an undergraduate course at Prince Sattam bin Abdulaziz University, KSA, participated in the study and were randomly divided into control and experimental groups. Pre-test and Post-test Evaluation was based on four scales of Torrance Tests of Creative Thinking: fluency, originality, flexibility, and elaboration (FOFE). In addition, two student engagement dimensions: emotional and behavioral were the focus during the interventions. The results showed a significant relation between motivation, expressive writing skills and sustainability awareness.

**Keywords:** Post-pandemic, sustainability, green pedagogy, eco-composition

## 1. Introduction

The disruption caused by Covid-19 pandemic has brought massive change (Krishnamurthy, 2020). As the Pandemic brought destruction to Humanity at large, Post–Covid education should focus on “lifelong learning, satisfaction, happiness, wellbeing, opportunity and contribution to humanity”(Zhao and Watterston,2021). Study conducted by Reich & Mehta (2021) concludes that “healing, community, and humanity”were key learnings from the pandemic year and essential values to rebuilding schools”. (Zhao 2018b, 2018c) states that humans should not compete with machines and, need to be more human. He claims that in the age of artificial Intelligence, “individual creativity”, “artistry” and “humanity” are aspects that make each of us unique. In the Post –Pandemic scenario Education for Sustainable Development, has started playing central role in the curricula development. The global climate emergency, the extinction of flora and fauna, poverty and growing social disparities have the urgency to incorporate Sustainable Developmental Goals(SDGs) into the activities of universities. Greig and Priddle(2019) state that Target 4.7 of the Sustainable Development Goals requires that, by 2030, all learners acquire the knowledge and skills needed to promote sustainable development. Universities have an important role in moving society towards a more sustainable future. However, this will require us to ‘repurpose universities, reorienting and refocusing the different university domains (education, research, campus, and outreach) towards sustainability’ Robinson and Pedersen(2021). Hamilton and Thomas(2017) suggested five learning objectives to be included to spread awareness about “global realities”: Including real-life place-based examples, emphasising “designing the future”, recognising the ethical and affective aspects of prevailing issues ,imparting specific skills to make learners leaders of change. Zhao and Watterston, 2021, suggest three big changes into Education: a) Curriculum that is developmental, personalized, and evolving; b) Pedagogy that is student-centred, inquiry-based, authentic, and purposeful; and c) delivery of instruction that capitalizes on the strengths of both synchronous and asynchronous learning. The need of the hour and realization to safeguard the planet has once again revived the importance of imparting Green Education.Green Education has existed since at least the 18th century (Unti & DeRosa, 2003).It is broadly defined as education that nurtures compassion and respect for living beings. Green education encourages cognitive, affective, and behavioral growth through personal development of critical thinking, problem solving, perspective-taking, and empathy as it relates to people, animals, the planet etc. Green Education not only supports knowledge acquisition but also, allows learners to process personal values in the interest of the community. Kuo & Ramsey (2021) state that green education focuses on uniqueness and the richness of diversity. They further suggest teachers to create an environment to develop global citizens' character, and embrace their individuality. Educators and other intellectuals have an obligation to engage with social issues (Crookes,2013). Jacobs (2016) states that when green education is addressed, other key topics are simultaneously addressed. “when humans cooperate to reduce the burden we place on our fellow animals, the cooperation we manifest, the empathy we demonstrate and the thinking skills we exercise all contribute to a more just, safer world for humans as well.”(Jacobs, 2016).One of the pedagogy of Green education is Green Pedagogy. It was originally developed in Austria. It gained popularity recently as one of the sustainability approaches. It is based on structured approach and aims to achieve sustainability competencies: (Systems Thinking Competence, Futures Thinking (Anticipatory) Competence Values Thinking (Normative) Competence • Strategic Thinking Competence • Interpersonal (Collaboration) Competence and meta-competence. Green Pedagogy is well-matched with other Education for Sustainable Development (ESD) pedagogies such as problem-based learning, teamwork, case studies, reflection or reflective dialogue, formal debate, role play, scenario planning and imaginative reflection. (McCowan, 2022). The main aim of the approach is to discover and explore the values of the learners by rousing emotions and to make them apply in their local

context; a “glocal” approach. Green Pedagogy is a six-step framework for planning learning experiences from a sustainability perspective. One technique of Green pedagogy is Ecological composition (eco-composition). It is a subfield in composition. According to Lavrysh et al, 2020, Eco-composition, integrates ecological literacy, language issues and writing skills development. Eco-composition is regarded as a new approach that is still developing. Mostly, these definitions focused on „writing about place“ and „writing in place“. Some simplified it as nature writing whereas others brought environmental problems into their classroom. Dobrin &Weisser (2002a,p. 6) defined eco-composition as “the study of the relationships between environments and discourse.” The meaning of environment here not only covers natural places but also “constructed and even imagined places”(p.6). House (2016) states that instilling eco-composition approaches in the classroom represents a necessity for teachers today. Eco-composition topics include: nature, environment, climate change, sustainability. Dobrin &Weisser (2002b,p.587) insist that eco-composition is not just providing students with texts on nature writing; it should include “the act of producing writing” as well. Hembrough,2019 states that students expressed that having the opportunity to compose work about important issues to them was the largest element in their experiencing of successful outcomes. The study revealed that eco-composition might serve as a productive tool to analyze text discourse, to enrich students' vocabulary with field-related terminology, to familiarize with composition types and registers, to enhance writing skills and to provide a personal developmental move toward sustainable lifestyle. Elsherif (2013) claims that eco-composition helped first-year composition teachers raise environmental awareness among learners. Goggin & Waggoner (2005) concluded that that during sustainability-themed, writing sessions, students gained a greater understanding of both sustainability concepts and writing discussions. For many of the compositionists discussed here, the objective of building students' ecological literacy is not just to address writing goals, but also to raise issues, find solutions, and prompt individual and communal change. By presenting current topics, including place-related ones, to interest students and develop their writing skills, faculty can facilitate students' deeper learning processes and analytical abilities (Friedman, 2013; Heiman, 2014). Barron et al, 2022 recommend the importance of contextualizing current climate change discussions in twenty-first-century eco-composition classrooms. They claim that student involvement in the writing process can create platform for new awareness and renewed interest in active engagement with climate change discussions. Kunz(2021), suggests an ecological composition (eco-composition) curriculum to develop an environmental and social consciousness among learners about the places they inhabit. Kunz further states that editing instruction should be taught as subjective knowledge connected to class, gender, race, and geography.

Though countries have made some progress towards achieving high levels of sustainable development; they face unique challenges in their regions that affect the attainment of the sustainable development goals. The pandemic experiences have highlighted the need to make the youth preserver-oriented rather than consumer-oriented. Existing empirical studies show that students have limited knowledge of the SDGs. SDEG not only suggest technical, economic and political, but educational solutions through integration of cognition and perception. Numerous studies have highlighted the limitations of focussing on knowledge gaps rather than recognizing and, nurturing the strengths of learners. Though, eco-composition has potential significance in promoting awareness about a sustainable future yet, it has been ignored at the university level to a great extent. Moreover, in the educational institutions , the focus has been mostly on environment. Social, cultural and economic dynamics of sustainable development have been ignored to a great extent. The synchronization of these three pillars is the central concern of this new paradigm of sustainable development. Therefore, the study aims to investigate the effectiveness of Eco-composition in fostering sustainability in the post-Covid scenario by maintaining a balance between environment. Social, cultural and economic dynamics . To address the issues, the following research questions have been formulated: 1.What are the psychological and emotional benefits of integrating sustainability in the context of post-pandemic recovery? 2. How can Eco-composition contribute towards fostering sustainability?

#### *Theoretical Framework*

Place-Based Education (PBE): It focuses on the importance getting connected to local contexts, cultures, and environments Orr(2013). It encourages students to develop a deep understanding of their surroundings and engage in hands-on, experiential learning activities. It is a fact that less significant places devalue their local cultural identity, traditions and history. Sustainable existence is possible only when each local community and region conserves cultural, artistic, historical and spiritual resources. Yemini et al,2023 state that PBE regained significant attention with the early 2020 outbreak of the COVID-19 pandemic, which caused large scale school closures globally and forced the rapid adoption of alternative learning. PBE prioritises experiential, community-based, and contextual learning in order to inculcate students with a sense of civic identity and engagement, by cultivating connections to community and prioritising decisions for the common good over the individual (Schild, 2016).

#### *The Layers-of-Necessity Model*

The layers-of-necessity model, developed by Tessmer and Wedman (1990), includes layers of design and development elements, selectable and performable according to an ID project's needs (Fig. 1). Each layer comprises “a self-contained ID model” (Tessmer & Wedman, 1990, p. 79) in various complexity levels. The emphasis placed on the needs signifies that each project differs in context, situation, and resources. Therefore, a designer can select a suitable layer of design necessities to complete the project within the allowable resources. Selecting a layer is “determined by what can be done in the situation, not what ought to be done” (Tessmer & Wedman, 1990, p. 81).

## **2. Literature Review**

### *2.1 Post-pandemic Period*

Collar(2023)stressed on the importance of adopting new strategies in composition sessions due the emerging challenges in the

post-pandemic period. The researcher states that ,two areas of focus :students' social and writing skills should be enhanced. The researcher supports eco-composition to exhibit flexibility and to implement social and reflective writing practices to engage students in the new normal.

## 2.2 Eco-composition

Lavrysh et.al(2020) adopted eco-composition pedagogy to integrate ecological literacy, language issues and writing skills development into English for Specific Purposes course in Ukraine. Quantitative and qualitative studies were used to substantiate the efficiency of eco-composition for foreign language learning. The results indicated that eco-composition acts as a productive tool to to enrich students' vocabulary, enhance writing skills and develop awareness towards sustainability. Hembrough(2019) conducted a four-year case study at a Southwestern university. 252 participants pursuing experimental course were encouraged to write reflective essays on environmental themes. Overall, employing eco-composition provided students with a relevant curriculum, assisting in writing digitally and thinking critically. The study's results have implications for implementing eco-composition design in writing classes. Hayik(2023)used creative method to promote eco-composition. Writers in at Palestinian-Israeli schools were asked to use PhotoVoice tool to create photographs reflecting the problematic aspects of their surroundings and to elaborate on them in writing. Results indicated that eco-composition can connect literacy teaching with social action. ByBee(2024 )conducted a case study at a university in United States to find out how a global competence framework influences undergraduate first-year composition (FYC) students'. The duration of the study was five weeks. Participants wrote research-based compositions on issues drawn from the United Nations 17 Sustainable Development Goals. Qualitative data were collected and analyzed at the completion of the writing unit. The study examined participants' growth in three framework domains: collaboration and communication, diverse perspectives, and civic and global engagement. Findings suggest students' improvement in their ability to communicate

## 2.3 Themes

### 2.3.1 Wellness

The mental health impact of the coronavirus disease 2019 (COVID-19) pandemic on youth is likely an urgent and enduring concern, yet research on this topic is still emerging. Various studies have concluded that the period was marked by stress, anxiety, and depression. Isolation from friends, classmates and teachers presented challenges to children's social development.Naff.et.al (2022) concluded that there was a clear connection between the mental health of caregivers (e.g., parents) and children. and the pandemic proved widely disruptive to youth. As the Pandemic brought destruction to Humanity at large, Post–Covid education should focus on “lifelong learning, satisfaction, happiness, wellbeing, opportunity and contribution to humanity”.(Zhao and Watterston,2021). Returning to ‘normal is an opportunity to reprioritize our happiness.Therefore , applying coping strategies has become the primary concern.

### 2.3.2 Social Issues

“An opportunity for us to rethink and reconsider” faults in many social systems that the pandemic has exposed. “Our discussion today is not just to recognize and respect the losses we have gone through,” he said, “but also some of the opportunities that may be coming, which will hopefully lead us to more resilient, more socially informed, and more socially aware economies and societies.”( Hughes, 2022).

### 2.3.3 Environment

Lesrtari.et.al (2019) state that, using an environmental topic can help the students to write better because the issue is close and personal. Furthermore, the issue triggers students' self-awareness to protect their environment. Chan(2023) claims in his study on Pluralistic Environmental Citizenship that integrating deliberative pedagogies in place-based education can enrich environmental citizenship education. Hembrough (2019) conducted a case study on Sustainability Themes and Eco-composition for the professional and Technical writing students. The study concluded that learners got a platform to thinking critically about diverse spaces related to their backgrounds, majors, and futures. Punzalan & Escalante(2021) conducted study on Enriching Environmental Awareness and Education through Museum trips.The study concluded that Real-world activities could positively enriched situated learning. Misiaszek (2021) study on Eco-pedagogical Literacy of a Pandemic, focussed on socio-environmental justice and planetary sustainability. Samuels (2018) conducted 25 public elementary schools in 5 cities across eastern China". The author reports that "[s]tudents who participated in the program displayed significantly greater gains in pro-sociality. Samules (2020) found that a 12-lesson humane education program significantly improved lower elementary students' attitudes and behaviors about the environment. Samuel et.al.(2016) compared the effect of the HEART humane education program on elementary students in several schools in two cities in the United States. Students self-reported their attitudes about the treatment of animals and the environment, and teachers rated each student's prosocial and disruptive behaviors. Effects appeared strongest on attitudes; behavioral effects were found to be largely limited to behaviors directly addressed by the humane education program."

### 2.3.4 Global Citizenship

“Education gives us a profound understanding that we are tied together as citizens of the global community, and that our challenges are interconnected.” Ban Ki-moon, UN Secretary-General UNESCO launched (2015)) Global Citizenship Education (GCED as pedagogical guidance by providing specific topics and learning objectives based on the three domains of learning–cognitive, socio-emotional and behavioural suggests ways of translating GCED concepts into age.”At a time when the international community is urged to define actions to promote peace, well-being, prosperity and sustainability, an develop into informed, critically literate, socially-connected, ethical and

engaged global citizens”. Qian Tang, Ph. D. Assistant Director-General for Education.Ait-Bouzit (2020) presented activities that developed learners' sense of belonging to global and local communities and provided them with skills, knowledges and behaviors to make them good citizens of the world. Delors (1996 recoded education as lifelong learning that included learning to know, learning to do, learning to be, and learning to live together. Juntunen & Partti (2022) concluded that interdisciplinary arts pedagogy could foster global citizenship: awareness, care, and understanding, global challenges and social issues. The study included themes "Renegotiating (cultural) identity," "Facing otherness," "Experiencing empathy," "Coping with power and inequality," "Awakening to ecological responsibility," and "Engaging in critical and reflective thinking." could support the cultivation of responsiveness and ethical awareness to advance transformative global citizenship.Xu & Garth (2023) claim that the concept of Global Citizenship is restricted in EFL classrooms.The study recommends that through dialogues with native learners via video conferencing and letters could be beneficial in making the EFL learners more informed global citizens. The results of the study revealed that the Chinese EFL learners came to recognise themselves as culturally sensitive learners and aware of the future demands of global citizenship.

**3. Methods**

A quasi-experimental research design was adopted to examine the effectiveness of Eco-composition in fostering Sustainability in the post-pandemic period. Accordingly, the study was conducted with Level –one students (N = 49) of an EFL Writing classroom, at Prince Sattam bin Abdulaziz University, Department of English during the second semester of the academic year 2023.

*3.1 Participants*

Forty Nine participants were randomly divided into control group and, experimental group.

24 formed the control group and 25 formed the experimental group. They were EFL learners, pursuing Essay Writing Course. Essay Writing Course was given for three hours per week .They belonged to the female section and aged between 18-20 years. Informed consent was collected from the students and they were assured that their identity would be kept confidential, they would not be harmed physically and, they were free to quit as a participant at any point. The intervention was carried out as an in-class activity and 60 minutes was allocated for each task every week.

*3.2 Research Instruments*

The study adopted quasi-experimental approach to find out the effectiveness of Eco-composition in fostering Sustainability. The data collection methods included observation, discussions and , performance in pre and post tests.Pre-test and Post-test Evaluation was based on the four scales of Torrance Tests of Creative Thinking: fluency, originality, flexibility, and elaboration (FOFE). Fluency was calculated on the number of ideas generated, flexibility was based on looking at the topic from different angles: time, place, or modality, or by putting yourself in someone else’s shoes. Originality was calculated based on unique or unexpected ideas and Elaboration as a criteria included details and filling in the gaps. In addition, two student engagement dimensions: emotional and behavioral were the focus during the interventions. Affective writing engagement is interest and enjoyment in the writing activity; behavioral writing engagement is related to participation, effort, and persistence. Lee et al., 2021; Parsons et al., 2018). Both the dimensions were measured based on observation and feedback from the learners.

*3.3 Procedure*

The empirical study was 10-week long. First a Pre-Test task was assigned to both the control and experimental groups to assess their knowledge attitudes, and perceptions about sustainability and environmental issues. The 24 students of the randomly formed control group continued with traditional learning sessions and the experimental group of 25 students was provided intervention based on Eco-composition. Three tasks were to be performed individually and two were collaborative in nature. After the intervention, a post-test was administered to both groups to measure any changes in their knowledge, attitudes, perceptions and performance related to sustainability. The objective of designing specific tasks was to maintain a balance between cognitive and affective learning with focuss on linguistic and emotional aspects. As Green pedagogy advocates providing real-life situations to the learners, they were provided topics : wellness, environmental concern, social issues and global citizenship. The themes were prioritized based on the layers-of-necessity model, developed by Tessmer and Wedman (1990).

*3.3.1 Pre-test Task*

The task was to explain the physical and emotional impacts of covid -19 phase.The objective of the task was to counsel the learners.

Table 1. Pre-Test Performance

	<b>Fluency</b>	<b>Originality</b>	<b>Flexibility</b>	<b>Elaboration</b>
Control Group	3.16	3.36	3.28	3.48
Experimental Group	3.28	3.32	3.20	3.40

Interventions for the Experimental Group

*3.3.2 Intervention One*

Wellness- In the Post –pandemic the need of the hour is to heal the mind and body by instilling positivity among learners. Therefore, to promote mental health , the learners were assigned guided composition of 500 words. “Happiness is making the most of what you have”.

Three supporting idioms were provided to the learners to develop their ideas.1.“Every cloud has a silver lining” 2.” When life gives you lemons, make lemonade”. 3.”Make Hay while the Sun Shines”.

3.3.3 Intervention Two

Social issues - It was a Collaborative Task. Learners were divided into groups of three and encouraged to use their creativity to prepare pamphlets for financial aid for supporting programs for students whose schools have been shut during the Pandemic.

3.3.4 Intervention Three

Animal Care-It was an Individual Task. The objective was to encourage the learners to think about the plight of animals and ways to help them. Eventually, developing compassion towards animals. Learners were required to create posters to spread awareness about showing compassion towards animals.

3.3.5 Intervention Four

Environmental issues-It was a Collaborative Task. The learners were reminded of the post –Covid economic and emotional challenges and the need to control food waste. Learners were encouraged to think creatively and suggest waste management strategies.

3.3.6 Intervention

Five- Global Citizenship-It was an Individual Task. Learners were encouraged to create a more peaceful and tolerant society and appreciate the diversity of life .The task was about a visit to an ethnic restaurant. The learners had to share their experience with focus on Culture (cuisine, hospitality,etc).

4. Results and Analysis

Table 2. Affective Analysis

Themes	Positive	Negative
Wellness	20	5
Social Issues	19	6
Animal Care	20	5
Environmental concern	22	3
Global citizenship	23	2

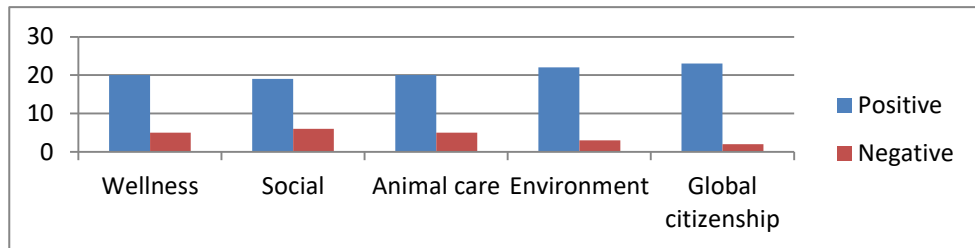


Figure 1. Affective

The affective criteria included interest and enjoyment. Data was collected through observation and, feedback from the students. For the theme ‘wellness’ 80% of the learners were interested and enjoyed writing on the theme of wellness. For the theme ‘social issues’. The number of students interested gradually decreased by 4 %.the results indicate that 76% of the students found the task interesting and enjoyed writing . For the theme ‘Animal Care”, 80% liked the topic and enjoyed writing. For the theme “Environmental concern ”, there was an increase by 8%. i.e. 88 % of the learners were interested and enjoyed writing. For the theme “Global citizenship”, 92% of the learners liked and enjoyed writing the task. This theme was liked the most by the learners.

Table 3. Behavioral

Themes	Positive	Negative
Wellness	19	6
Social Issues	22	3
Animal Care	19	6
Environmental concern	23	2
Global citizenship	21	3

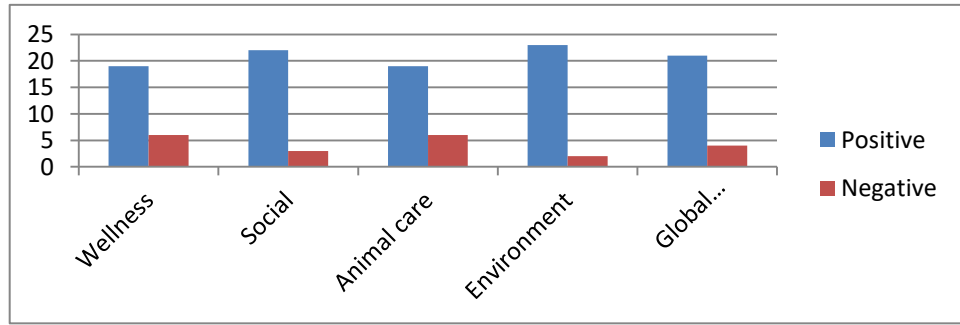


Figure 2. Behavioural

The behavioral criteria covered participation, effort, and persistence. Data was collected through observation and, feedback from the students. For the theme ‘wellness’ 76% of the learners participated and put their efforts in the writing tasks. When compared to task one there was an increase by 12% for the collaborative work. Similar to ‘Wellness theme’, 76% participated and put their efforts on the task based on **Animal care**. However, 92% (maximum) was recorded for the theme on ‘**Environmental concern**’. For the theme “**Global citizenship**”, 84% of the learners participated actively and were persistent. Data indicates that almost all the learners liked the topics but preferred collaborative tasks: Social issues and Environmental concerns.

**Post-Test**

Both the groups were given the Post-test. Learners were provided with a the Concept map to explain cause and effect relationship of any two types of pollution. For each type of pollution they had to write three causes and three effects and suggest two ways to control.

Table 4. Post-Test Performance

Variable	Fluency	Originality	Flexibility	Elaboration
Control Group	<b>3.45</b>	<b>3.56</b>	<b>3.28</b>	<b>3.56</b>
Experimental Group	<b>3.88</b>	<b>3.76</b>	<b>3.68</b>	<b>3.92</b>

Table 5. Effectiveness of Eco-composition

Variable	Fluency	Originality	Flexibility	Elaboration	M	SD
Control Group	<b>3.45</b>	<b>3.56</b>	<b>3.28</b>	<b>3.56</b>	12.96	1.670329308849
Experimental Group	<b>3.88</b>	<b>3.76</b>	<b>3.68</b>	<b>3.92</b>	15.24	0.96953597148327

*Findings*

Results of the paired-t test indicated that there is a significant large difference between Before (M = 13 ,SD = 1.7) and After (M = 15.2 ,SD = 1), t(24) = 7, p < .001. Based on the comparative data in the data ,it is evident that there were improvements in all variables from pre-test to post-test, as indicated by the higher scores in the post-test column. This leads to conclude that Eco-composition can be an effective technique to foster sustainability awareness among youth at the university level.

**5. Discussion**

The results for the two dimensions of engagement indicate that learners felt more confident and comfortable when working with their peers, especially during the post –pandemic period The results are in line with the observations of researchers(Chowdhury,2021;Kalaian, 2018; Janzen,2021, Sheyakhmetova,2020). Calzada & Mayo (2020) claim that children have a positive attitude towards L2 writing when given collaborative tasks. Shayakhmetova et al (2020) state that Collaborative writing enables students to ‘communicate, consult, and make collective decisions during the writing process with shared accountability and co-ownership’.The affective and behavioural criteria for social and environmental indicate preference for collaborative tasks. It has been observed that learners have returned to the educational institutions with mixed feelings post pandemic. They have been shaken by the stark realities of life: Death, unemployment, isolation, emotional hollowness, anxiety, learning loss, etc.( Bal et al, 2020; Soon et al, 2023; Wang & Sun , 2022).The mental status due to the unexpected sudden change was seen in the performance of some leaners who could not cope up with the radical shift. In terms of Cognitive abilities, for low performance, one cannot consider the pandemic to be the only cause. It is a known fact that among the four language skills, EFL learners consider writing to be the most challenging. It is a challenging skill as it requires proper organization, appropriate vocabulary, accurate sentence structure, correct spellings etc. Though the topics might be interesting yet the learners may be poor in applying cognitive skills and the outcome could be unsatisfactory. (Mustafa, 2018; Zhang et al., 2021; Molinari, 2019; Alostath, 2021).The results indicate that the objective of Green Pedagogy approach to appreciate the strengths of the learners rather than fill gaps in their knowledge has proved to be effective. Post -Pandemic the necessity has been felt by the educationists to adopt pedagogy which gives importance to emotional, creative, psychological, and developmental needs of the learners.( Zhao & Watterston, 2021; Reich & Mehta 2021; Zhao 2018b, 2018c,Glavic,2020).Thus, eco-composition provided opportunities to the learners to make use of creativity, curiosity, critical thinking, collaboration, communication and global competence there by, paving way for maximum student engagement. The study adopted

suggestion by Wold .et.al (2023) to increase learner engagement by gaining knowledge about their envisioned goals, interests, and self-beliefs'.(Gasong &Toding,2020) state that the basic principle of eco-composition is 'meaningfulness'. The themes chosen have a purpose in the life of the learners. 'Wellness' as a theme worked as a counselling session. They went back to the pandemic stage and compared the present state and gained strength to move on. 'social issues' made them realise how blessed most of them were and their duty towards the community. 'Animal Care' made them more sensitive towards God's creation. Environmental Concern made them responsible for their future and 'Global citizenship' helped them to understand the uniqueness of every individual and the richness of diversity. It also made them to understand the importance of tolerance towards deprived people,cultures. Languages and religions .The results indicate that designing suitable tasks/ themes can increase student motivation which in turn result in more participation and better performance. The themes were related to real-life and appropriate to the current scenario. The results are in line with the observations made by (Boscolo & Gelati, 2018; Camacho et al., 2021; Ekholm et al., 2018; Klassen, 2002).They claim that writing instruction should not only focus on skills but, must also continually consider motivation. The study highlights the significance of eco-composition as a pedagogical strategy by showing that it not only supports creativity in writing but also motivates students to engage meaningfully with sustainability issues. The research provides several important implications for universities looking to act as agents of sustainable development through eco-composition pedagogy. The study had some limitations. Owing to the limited course intake, the study had a small sample size and may have been insufficiently powered to evaluate the effectiveness of eco-composition in improving sustainability awareness among the writers thus, affecting the generalizability of the findings.

## 6. Conclusion

Post –pandemic period has underscored the significance of sustainable awareness among youth. It is imperative to educate the next generation of decision-makers who will have a critical impact on the future of the planet. Therefore, universities can be important agents for sustainable development. At the organizational level, policy makers across the globe should integrate sustainability policies and programs based on the learning objectives framed by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in accordance with the 17 Sustainable Development Goals (SDGs). 'Go Green' should be the buzz word- using renewable energy, implementing waste management strategies, and fostering a sustainable corporate culture. At the community level, teaching fraternity can adopt green pedagogy suggested by ESD and offer a structured approach to achieve embedded sustainability competencies. At the individual level, Eco-composition can be incorporated into the EFL writing sessions by broadening course requirements to not only improve cognitive skills of learners :fluency, originality, flexibility and elaboration but also, perception and attitude towards their place and environment. The findings of the study validates the significance of Eco-composition in acquiring knowledge, abilities, attitudes, and values required to build a sustainable future. Blitz and Hurlbert(1998, p, 55)rightly state, "what is the point of teaching people to read and write if we are not also trying to teach them to understand the world and to make it better?".

## Acknowledgments

Prince Sattam bin Abdulaziz University

## Authors' contributions

Not applicable.

## Funding

No funding was received

## Competing interests

The author declares that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Informed consent

Obtained.

## Ethics approval

The Publication Ethics Committee of the Sciedu Press.

The journal's policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

## Provenance and peer review

Not commissioned; externally double-blind peer reviewed.

## Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

## Data sharing statement

No additional data are available.

## Open access

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

### Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

### References

- Ahern-Dodson, J., & Reisinger, D. (2017). Moving beyond corrective feedback: (Re) Engaging with student writing in L2 through audio response. *Journal of Response to Writing*, 3, 129-152.
- Ait-Bouazid, H. (2020). Exploring Global Citizenship as a Cross-Curricular Theme in Moroccan ELT Textbooks. *Eurasian Journal of Applied Linguistics*, 6(2), 229-242. <https://doi.org/10.32601/ejal.775801>
- Alexander, P. (2018). Engagement and Literacy: Reading Between the Lines. *Journal of Research in Reading*, 41(4). <https://doi.org/10.1111/1467-9817.12262>
- Alostath, K. (2021). *Graduate Students' Challenges in Academic Writing*.
- Bal, I. A., Arslan, O., Budhrani, K., Mao, Z., Novak, K., & Muljana, P. S. (2020). The Balance of Roles: Graduate Student Perspectives during the COVID-19 Pandemic *TechTrends: Linking Research and Practice to Improve Learning*, 64(6), 796-798. <https://doi.org/10.1007/s11528-020-00534-z>
- Barrón, N. G., Gruber, S., & Huffman, G. (2022). Student Engagement and Environmental Awareness: Gen Z and Ecomposition. *Environmental Humanities*, 14(1), 219-232. <https://doi.org/10.1215/22011919-9481528>
- Boscolo, P., & Gelati, C. (2019). Best practices in promoting motivation for writing. In S. Graham, C. MacArthur, & J. Fitzgerald (Eds.), *Best practices in writing instruction* (3rd ed.). New York-London: Guilford.
- ByBee, K. W. (2024). *Compassionate Connections: Global Competence and Cosmopolitan Practices in a First-Year Composition Writing Unit*. ProQuest LLC, Ph.D. Dissertation, Arizona State University.
- Byrne, D., Dripps, W., & Nicholas, K. A. (2015). Teaching and learning sustainability: an assessment of the curriculum content and structure of sustainability degree programs in higher education. *Sustain Sci*, 10(1), 43-59. <https://doi.org/10.1007/s11625-014-0251-y>
- Calzada, A., & García Mayo, M. P. (2020b). Child EFL learners' attitudes towards a collaborative writing task: An exploratory study. *Language Teaching for Young Learners*, 2(1), 52-72. <https://doi.org/10.1075/ltyl.19008.cal>
- Camacho, A., & Alves, R. A. (2017). Fostering parental involvement in writing: Development and testing of the program Cultivating Writing. *Reading and Writing: An Interdisciplinary Journal*, 30(2), 253-277. <https://doi.org/10.1007/s11145-016-9672-6>
- Chaka, C., Nkhobo, T., & Lephala, M. (2022). Leveraging Student Engagement through MS Teams at an Open and Distance E-Learning Institution. *Journal of Education and e-Learning Research*, 9(3), 136-146. <https://doi.org/10.20448/jeelr.v9i3.4102>
- Chan. (2023). Developing youth toward pluralistic environmental citizenship: a Taiwanese place-based curriculum case study. *Environmental Research*, 29(1), 121-147. <https://doi.org/10.1080/13504622.2022.2093334>
- Chowdhury, T. A. (2021). Fostering Learner Autonomy through Cooperative and Collaborative Learning. *Shanlax International Journal of Education*, 10(1), 89-95. <https://doi.org/10.34293/education.v10i1.4347>
- Collar, J. (2023). Overcoming Challenges of the Post-Pandemic Composition Classroom. *English in Texas*, 53(2), 11-14.
- Czerkawski, B. C., & Lyman, E. W. (2016). An instructional design framework for fostering student engagement in online learning environments. *Teaching Trends*, 60(6), 532-539. <https://doi.org/10.1007/s11528-016-0110-z>
- Dobrin, S. I., & Weisser C. R. (2002). Breaking Ground in Ecomposition: Exploring Relationships between Discourse and Environment. *College English*, 64, 566. <https://doi.org/10.58680/ce20021264>
- Ekholm, E., Zumbunn, S., & DeBusk-Lane, M. (2018). Clarifying an elusive construct: A systematic review of writing attitudes. *Educational Psychology Review*, 30(3), 827-856. <https://doi.org/10.1007/s10648-017-9423-5>
- Gasong, D., & Toding, A. (2021). Effectiveness of Humanistic Learning Models on Intra and Interpersonal Intelligence. *Utopía y Praxis Latinoamericana*, 25(6), 491-500.
- Hayik, R. (2023). Engaging Writing in the Arab EFL Classroom. *ELT Journal*, 77(2), 156-165. <https://doi.org/10.1093/elt/ccac038>
- Hembrough, T. (2019). A Case Study: Focusing on Sustainability Themes and Ecomposition through Student Blogs in a Professional and Technical Writing Course. *International Journal of Instruction*, 12(1), 895-914. <https://doi.org/10.29333/iji.2019.12158a>
- Ives, S., Parsons, S., Marine, J., Rogers, P., Horton, A., & Young, C. (2022). *Students' Writing Engagement*. <https://doi.org/10.4018/978-1-6684-3745-2.ch008>
- Janzen, K. (2021). The Perceived Efficacy of Cooperative Group Learning in a Graduate Program. *Canadian Journal for the Scholarship of Teaching and Learning*, 12(1). <https://doi.org/10.5206/cjsotlracea.2021.1.14206>



- Jennifer, A., Filsecker, M., & Lawson, A. M. (2016). Student engagement, context, and adjustment: Addressing definitional, measurement, and methodological issues. *Learning and Instruction, 43*, 1-4. <https://doi.org/10.1016/j.learninstruc.2016.02.002>
- Johnson, N., Veletsianos, G., & Seaman, J. (2020). U.S. Faculty and Administrators' Experiences and Approaches in the Early Weeks of the COVID-19 Pandemic. *Online Learning, 24*, 6-21. <https://doi.org/10.24059/olj.v24i2.2285>
- Juntunen, M. L., & Partti, H. (2022). Towards transformative global citizenship through interdisciplinary arts education. *International Journal of Education & the Arts, 22*(13).
- Kalaian, S. A., Kasim, R. M., & Nims, J. K. (2018). Effectiveness of Small-Group Learning Pedagogies in Engineering and Technology Education: A Meta-Analysis. *Journal of Technology Education, 29*(2), 20-35. <https://doi.org/10.21061/jte.v29i2.a.2>
- Kaur, J., & Kaur, K. (2022). Developing Awareness and Attitude Towards Sustainability Through an Activity-Based Intervention. *Journal on Efficiency and Responsibility in Education and Science, 15*(4), 212-220. <https://doi.org/10.7160/eriesj.2022.150402>
- Kim, Y. J. (2016). *A framework for understanding second language writing strategies* (Order No. 10144771). Available from ProQuest Dissertations & Theses Global.
- Kioupi, V., & Voulvoulis, N. (2020). Sustainable Development Goals (SDGs): assessing the contribution of higher education programmes. *Sustainability, 12*(17), 6701. <https://doi.org/10.3390/su12176701>
- Kleespies, M. W., & Dierkes, P. W. (2022). The importance of the Sustainable Development Goals to students of environmental and sustainability studies—a global survey in 41 countries. *Humanities and Social Sciences Communication, 9*(218). <https://doi.org/10.1057/s41599-022-01242-0>
- Krishnamurthy, S. (2020). The future of business education: a commentary in the shadow of the Covid-19 pandemic. *Journal of Business Sustainability. Res., 117*, 1-5. <https://doi.org/10.1016/j.jbusres.2020.05.034>
- Kunz, E. L. (2021). Ecological Writing Processes to Promote Environmental and Social Consciousnesses. In Ozaki, C.C., Parson, L. (Eds.), *Teaching and Learning for Social Justice and Equity in Higher Education*. Palgrave Macmillan, Cham. [https://doi.org/10.1007/978-3-030-69947-5\\_4](https://doi.org/10.1007/978-3-030-69947-5_4)
- Kuo, N., & Ramsey, J. (2021). The Design of Curriculum in Human Education through Daisaku Ikeda Children's Stories. *Curriculum and Teaching, 36*(2), 59-71. <https://doi.org/10.7459/ct/36.2.05>
- Lavrysh, Y., Lytovchenko, I., & Lukianenko, V. (2020). Ecomposition Integration into ESP Course for Bachelors at a Technical University. *MEXTESOL Journal, 44*(1).
- Lee, J., Song, H., & Hong, A. (2019). Exploring factors, and indicators for measuring students' sustainable engagement in e-learning. *Sustainability, 11*(4), 85. <https://doi.org/10.3390/su11040985>
- Long, H., Kerr, B. A., Emler, T. E., & Birdnow, M. (2022). A Critical Review of Assessments of Creativity in Education. *Review of Research in Education, 46*(1), 288-323. <https://doi.org/10.3102/0091732X221084326>
- Marope, M. (2017). *Education & the Future*. IBE in focus.
- Mir, i Y., Laura, E., & Adi, B.S. (2023). Place-based education – a systematic review of literature. *Educational Review*.
- Misiaszek, G. W. (2022). Ecopedagogy: Critical Environmental Pedagogies to Disrupt Falsely Touted Sustainable Development. In: Abdi, A.A., Misiaszek, G.W. (Eds.), *The Palgrave Handbook. on Critical Theories of Education*. Palgrave Macmillan, Cham. [https://doi.org/10.1007/978-3-030-86343-2\\_17](https://doi.org/10.1007/978-3-030-86343-2_17)
- Molinari, J. (2019). *What makes writing academic: An educational and philosophical response* (Order No. 28052657). Available from ProQuest Dissertations & Theses Global.
- Mustafa, B. (2018). *Investigating English major undergraduate students' experiences with writing in English for Academic Purposes in the University of Prishtina* (Order No. 27923242).
- Nayir, F. (2017). The relationship between student motivation and class engagement levels. *Eurasian Journal of Educational Research, 71*, 59-78. <https://doi.org/10.14689/ejer.2017.71.4>
- Reich, J., & Mehta, J. (2021). *Healing, Community, and Humanity: How Students and Teachers Want to Reinvent Schools Post-COVID*. <https://doi.org/10.35542/osf.io/nd52b>
- Rodríguez-García, A. M., López Belmonte, J., Agreda Montoro, M., & Moreno-Guerrero, A. J. (2019). Productive, structural and dynamic study of the concept of sustainability in the educational field. *Sustainability, 11*(20), 5613. <https://doi.org/10.3390/su11205613>
- Samuels, W. E. (2018). Nurturing kindness naturally: A humane education program's effect on the prosocial behavior of first and second graders across China. *International Journal of Educational Research, 91*, 49-64. <https://doi.org/10.1016/j.ijer.2018.08.001>
- Samuels, W. E. (2020). A world of good: A humane education program's effects on lower-elementary students' environmental behaviors. *International Journal of Humane Education, 1*(1), 32-66.
- Setyowati, L., Sukmawan, S., & El-Sulukiyah, A. (2019). Investigating the Students' Writing Ability in Responding to Environmental

- Issue. *Arab World English Journal*, 10(4), 238-250. <https://doi.org/10.24093/awej/vol10no4.18>
- Shayakhmetova, L., Mukharlyamova, L., Zhussupova, R., & Beisembayeva, Z. (2020). Developing Collaborative Academic Writing Skills in English in CALL Classroom. *International Journal of Higher Education*, 9(8) 13-18. <https://doi.org/10.5430/ijhe.v9n8p13>
- Silva, A. M., & Nadais, C. (2019). *Biocentric Education : From Rolando Toro Model to the Paradigm 4 . 0*.
- Soon, T. C., Caleon, I. S., Shaik, K., Munirah, B., Chua, J., & Ilham, N. Q. (2023). Navigating Challenges during COVID-19 Pandemic: Experiences and Coping Strategies of Singapore Students. *Educational and Developmental Psychologist*, 40(1), 63-73. <https://doi.org/10.1080/20590776.2022.2079405>
- Storch, N. (2019). Collaborative writing. *Language Teaching*, 52(1), 40-59. <https://doi.org/10.1017/S0261444818000320>
- Tessmer, M., & Wedman, J. F. (1990). Layers-of-necessity instructional development model. *ETR&D*, 38, 77-85. <https://doi.org/10.1007/BF02298271>
- Theresa, F., Joachim, S., & Todd, C. (2020). *Report of results global survey on sustainability and the SDGs: awareness, priorities, need for action*. Schlange & Co. GmbH, Hamburg.
- Tomlinson, C. A. (2014). *The differentiated classroom: Responding to the needs of all learners* (2nd ed.). ASCD.
- United Nations. (2017). Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development: A/RES/71/313. Retrieved from <https://undocs.org/A/RES/71/313>
- Wang, Q., & Huang, R. (2021). The impact of COVID-19 pandemic on sustainable development goals – A survey. *Environmental Research*. <https://doi.org/10.1016/j.envres.2021.111637>
- Xu, W., & Garth, S. (2023). Chinese as a Foreign Language (CFL) education and global citizenship: pedagogical encounters and endangered spaces of possibility. *Globalisation, Societies and Education*, 21(1), 135-147. <https://doi.org/10.1080/14767724.2022.2026764>
- Yuan, X., Yu, L., Wu, H., She, H., Luo, J., & Li, X. (2022). Sustainable Development Goals (SDGs) Priorities of Senior High School Students and Global Public: Recommendations for Implementing Education for Sustainable Development (ESD). *Education Research International*, 1–14. <https://doi.org/10.1155/2022/2555168>
- Yuriev, A., & Sierra-Barón, W. (2020). Exploring sustainability cross-culturally: employees' beliefs on green behaviors. *Sustainable Development*, 28(5), 1199-1207. <https://doi.org/10.1002/sd.2069>
- Zhao, Y. (2018). Personalizable Education for Greatness. *Kappa Delta Pi Record*, 54(3), 109-115. <https://doi.org/10.1080/00228958.2018.1481645>
- Zhao, Y. (2018). The Changing Context of Teaching and Implications for Teacher Education. *Peabody Journal of Education*, 93, 295-308. <https://doi.org/10.1080/0161956X.2018.1449896>
- Zhao, Y., & Watterston, J. (2021). Changes we need: Education post COVID-19. *Journal of Educational Change*, 22(1), 3-12. <https://doi.org/10.1007/s10833-021-09417-3>
- Zheng, Y., & Yu, S. (2018). Student engagement with teacher written corrective in EFL writing: A case study of Chinese lower proficiency students. *Assessing Writing*, 37, 13-24. <https://doi.org/10.1016/j.asw.2018.03.001>