

Visualising Glocal Sustainability Agency through Photovoice: Indonesian Students and the Translation of Global Sustainability Discourse

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Abstract

This article attempts to understand how Indonesian undergraduate students used photovoice to localize and make sense of global sustainability discourse through local imagery, language, and reflective thinking. This study does not view the Sustainable Development Goals, Education for Sustainable Development, or global citizenship as objective frameworks to be delivered to students. This study instead views them as transnational education discourses that will be interpreted in culturally and institutionally specific ways. Using a Take Action Global (TAG)-related virtual sustainability learning activity in an English for Specific Purposes (ESP) framework, this participatory study involved six undergraduate students and was located in a qualitative paradigm. Data were drawn from student photographs, reflective narratives, peer dialogues, semi-structured interviews, and research notes. The study found that through photovoice, students were able to identify environmental conditions that were generally ignored, articulate local sustainability challenges through images, and reflect on and narrate these challenges in English. The study also found that through program-based comparison, students were able to connect local environmental conditions with the broader sustainability discourse. The authors of the study exercise caution against the generalization of the findings. The study also introduces the term glocal sustainability agency, which the authors define as the ability of the students, as a result of cultural placement, to link local environmental experience with global sustainability discourse, provide representation to that linkage through images and language, and view themselves as accountable in their everyday practices. The authors of the study also claim that sustainability education can be enhanced through the use of photovoice, since it provides students with the tools to identify, articulate, narrate, and reflect on environmental issues that are relevant to them.

Keywords: photovoice; glocal sustainability agency; sustainability discourse; visual culture; Indonesian higher education; process innovation

Introduction

Global Sustainability Discourse and Asian Higher Education

Higher educational establishments have been and continue to be instrumental in the advancement of global sustainability initiatives, such as the United Nations Sustainable Development Goals, Education for Sustainable Development, and global citizenship education (Abas et al., 2026). In this context, universities have a dual role to play, not only as knowledge disseminators, but also as facilitators for students to develop the capacity and the ethical responsibility to respond to the challenges of the environment and society. Consequently, SDG 4 on quality education and SDG 13 on climate action have become prominent considerations in the development of curricula and educational initiatives with a sustainability focus (Pham Xuan & Håkansson Lindqvist, 2025).

That said, the SDGs, ESD, and global citizenship are not, for the purposes of this study, neutral frameworks that can be bequeathed to students of Asian higher education (Witenstein et al., 2025). Rather, they are, for the author, transnational educational frameworks that are discursively articulated, interpreted, translated, and contested in specific cultural, linguistic, and institutional settings. From the inter-Asia cultural studies perspective, the pivotal question rests with how students in Indonesian and other Asian educational systems

engage with the global discourse on sustainability, and not with whether they become sustainability conscious (Kumpoh et al., 2021).

Because sustainability education is framed through a universal policy language, there is a tendency to depict sustainability education, climate action, global citizenship, and sustainable futures as being inclusive initiatives. However, the meanings of these terms are defined through unequal histories of knowledge production, the internationalization of institutions, and the mobility of education (Bamberger & Morris, 2026). In Asian higher education, students experience global initiatives in the context of local environmental issues, national education policies, and regional or international programs through the mediation of the English language. Thus, sustainability education is a cultural process of translation, negotiation, and contextualization (Affolderbach, 2022).

From Awareness-Action Gap to Situated Sustainability Agency

One of the major issues in sustainability education is the gap between awareness and action. This is characterized by the fact that students may be exposed to the ideals of climate protection, responsibility toward the environment, and sustainable lifestyles, and yet may not embrace a civic or social responsibility to enact sustainability in their daily lives (Colombo et al., 2023). For many students, sustainability may be a collection of concepts, global policies, and frameworks that are disconnected from their contexts (Guerrero & Sjöström, 2025).

The awareness-action gap is not only a lack of awareness. It is also the chasm between global discourses of sustainability and the realities of the students. Therefore, sustainability education may be a means to empower students by making it possible for them to frame environmental issues of concern to them in social and cultural terms (Ahmad et al., 2023).

This study expands the analysis beyond sustainability awareness. It shifts it to the ability to act. Agency is the ability to critically observe local environments, interpret and relate wider sustainability issues, articulate, and envision alternative forms of action. This situated expression of agency does not equate to the responsibility to act in a sphere of influence as activism and leadership do, and should not be construed as such (Olkkonen & Morsing, 2023).

Cross-Cultural and Language-Mediated Sustainability Learning

Sustainability learning, as this study uses the term, occurs in the context of the international virtual mobility program of Take Action Global (TAG) (Davies-Vollum et al., 2024). It happens in a Cross-Cultural, Language-Mediated setting and English for Specific Purposes (ESP) (Xu & Chen, 2026). The significance of this context is that students could articulate local environmental issues in English and communicate their reflections in a broader context.

English is not just a language target but is a tool for students to narrate their local environmental issues to a wider audience. This phenomenon is culturally specific. In order to articulate local issues within global environmental discourses, students must relate their local lived experiences to global sustainability vocabulary. This may entail Indonesian or Asian contextual realities and the lexicon of global sustainability education.

Because of this phenomenon, the cross-cultural aspect of this research is treated carefully. This research does not automatically equate exposure to a virtual mobility program with intercultural transformation. Rather, it elucidates the ways in which students contextualize local environmental issues within global sustainability discourses through images and verbal language (Komarawan et al., 2025). In those instances of cross-cultural interaction, it serves as a domain for students to engage in discourse about their lived environmental realities and how, in varying contexts, sustainability is experienced. This research aims to investigate how students articulate both global sustainability concepts and local, as well as inter-Asian, educational concepts (Shahjahan et al., 2022).

Photovoice as Visual and Participatory Pedagogy

Photovoice employs a participatory and visual methodology that elucidates how students comprehend sustainability issues concerning their surroundings. Photovoice invites students to focus on their surroundings, especially those locations and objects that otherwise appear to be commonplace and easily ignored. If students are provided the opportunity to focus on and describe, in writing, classroom practices, or even photos, of a plastic bottle, a public space, a plant, or classroom practice of accumulating waste, they are invited to engage and reflect (Prandi et al., 2021; Yang et al., 2021).

In the present study, photovoice and the SHOWeD reflective framework are combined. The five letters of SHOWeD represent the following questions: What do you see? What is really happening? How does this relate to our lives? Why does this concern or strength exist? What can we do about it? These questions allow a student to go from the aesthetic to the emotional and personal, to the structural, and finally, to the point of action. This framework is especially appropriate because it guides students to think beyond the documentation of environmental issues to their causes, meanings, and consequences.

In this research, photographs are not taken to simply document issues. Photographs contain meanings that students articulate and construct by the way they select and organize the photographs. Sustainability is interpreted culturally, and this is evident in the ways students photograph, the boundaries they draw in framing the photographs, and the narrations they provide. From a cultural studies perspective, photographs are insightful because they show how students frame environmental issues in their context and how they articulate and convey their perceptions of these issues in the environment.

Research Gap and Contribution

A number of studies have emphasized the role of participative and reflective teaching approaches in sustainability education, experiential learning, and cross-cultural learning. The bulk of this literature is predominantly focused on teaching and learning outcomes reflected in increased awareness, greater competence, or changes in behavior. Very little has been documented on the interpretation, visualization, and articulation of global sustainability discourses by students in the context of specific Asian higher education.

Photovoice has received a great deal of attention in participative research and teaching approaches; however, its application in understanding the cultural politics of sustainability learning is underdeveloped. Of particular interest is how students' photographs are interpreted as visual texts that articulate the intersection of local environmental and global sustainability discourses. This is relevant for inter-Asia cultural studies as it shifts sustainability education thinking from the narrow confines of policy to the broader concerns of representation, interpretation, subjectivity, and context-based agency (Dias et al., 2025; Farrales et al., 2022; García- esparza & Nikšić, 2024).

By investigating how Indonesian undergraduate students employed photovoice in a Targeted-Audience Group (TAG)-based English for Specific Purposes (ESP)-mediated learning context, the present study attempts to fill the existing gaps in the literature regarding the meaning of sustainability. It proposes the notion of glocal sustainability agency, which refers to students' capability to link local environmental issues with global sustainability aspects and makes this link through visual and linguistic means. This agency situates students as responsible and active individuals. Unlike general awareness, the glocal sustainability agency introduces interpretation and situated action. This agency is also distinguishable from formal leadership, as it relates to a nascent capacity for responsibility and influence that may commence in the form of minor reflective practices and self-positioning.

This study introduces a structured way of understanding the role of photovoice, SHOWeD reflection, English-mediated cross-border communication, and cross-cultural learning in sustainability education as a visual and cultural means of translation. Sustainability education becomes illustrated and cultural education. This study maintains that the students play the role of situated visual agents and interpreters of sustainability within their local context and educational systems; they are not merely the participants of global sustainability initiatives.

Research Questions

In line with the above discussion, this study is guided by the following research questions:

1. How do students use photovoice to construct meanings of sustainability in relation to their local environments and cross-cultural learning experiences?
2. How does photovoice-based reflection support students' movement from sustainability awareness to everyday situated practice?
3. How do students describe their emerging sense of glocal sustainability agency within a language-mediated learning context?

Literature Review and Conceptual Framework

Global Sustainability Discourse, ESD, and the Politics of Educational Translation

Education for Sustainable Development (ESD) is an emerging critical lens for understanding how to conceptualize the higher education response to environmental and social challenges. In international policy, ESD places universities as the site for developing knowledge of sustainability and the cultivation of ethically and critically responsible action and thinking. Therefore, ESD is associated with the SDGs, especially SDG 4 on education and SDG 13 on climate action. These frameworks have had a strong impact on the design of curricula, international education, and sustainability-related teaching and learning in a range of higher education systems. This research does not consider ESD and the SDGs as the imposition of educational goals. They are instead globally circulating frameworks that are interpreted, translated, and negotiated in contexts and cultures. From a cultural studies lens, frameworks of global education do not enter a local classroom as they were developed. They are embedded with assumptions of development, citizenship, responsibility, modernity, and the role of education. Adoption of these frameworks in higher education in the Asian context would be contingent on local histories, institutional goals, the use of language, and the lived experiences of the students (Leavesley et al., 2022; Obura et al., 2021).

It matters because research on sustainability education typically employs a universal framework where “global citizenship,” “climate action,” “sustainable futures,” and “environmental responsibility” are seen as inclusive terms. While this may present a more inclusive narrative, it can negate the impact of location, power, history and differential access to resources. Students in Indonesia, as well as elsewhere in Asia, are not engaging with sustainability as an abstract global issue. They are dealing with sustainability in relation to local, national, and regional environmental issues, along with the sustainability of their campuses, urban community practices, inclusive teaching in English, and international or regional mobility programs.

This brings us to the question of not only whether students become aware of sustainability issues, but how they contextualize the global sustainability discourse in a local framework. This type of contextualization requires more than linguistic translation. This includes cultural and pedagogical contextualization in which students locate global sustainability constructs within their own contexts, values, more, and social positioning. The sustainability discourse ceases to be merely an abstract global construct. It becomes personally relevant and provides students with the motivation to view themselves as active participants in the discourse.

Rather than a traditional awareness-action model of ESD, this study attempts an awareness-action model of ESD along with complementary methods. While the awareness-action gap is integral to this model, it cannot be confined to a dichotomous relationship between knowledge and action. The awareness-action gap comprises both global policy discourses and the lived experiences of students. Students may have an awareness of climate change and the SDGs, however, they may be unable to relate them to their contexts or identify the available actions. For this reason, this study seeks to explore the ways in which photovoice enables students to articulate sustainability as a global and local concern situated in their community (Bandari et al., 2024; Barraclough et al., 2023).

Asia as Method, Inter-Asia Learning, and Situated Knowledge

Describing the Asian region as a geographical background is not enough for research that is situated within Asian higher education. Inter-Asia cultural studies calls for careful consideration of the ways in which knowledge, culture, discourses and educational practices flow across and within different sites in Asia. The concept of “Asia as Method” is particularly relevant in this context, as it helps to capture the ways in which research and educational theory can draw on local, Asian experiences and contexts, as opposed to assuming that educational theory and models must flow to Asia from dominant, Euro-American or globally central policy contexts.

In the context of sustainability education, for example, it is important to understand Indonesian students as more than passive recipients of global sustainability concepts and as active (and perhaps critical) interpreters of these concepts. Their everyday experiences and environmental observations, and their choices in the classroom and reflections through different media, can illustrate the ways sustainability is interpreted and constructed from the ground up. Thus, local educational discourses and practices on sustainability can help to frame global sustainability discussions (Bandari et al., 2024; Barraclough et al., 2023).

The inter-Asia focus of the study seeks to conceptualize sustainability learning as an outcome of Asian education contexts, regional learning interactions, and mediated intercultural communication. However, inter-Asia cannot be taken for granted. A virtual mobility program can facilitate cross-cultural interaction. However, this interaction is analytically significant only in the instances where students critically reflect on these encounters and articulate how they conceptualize sustainability from different perspectives. Hence, the study conceptualizes inter-Asia learning as the situated process that students articulate through their visual and narrative data, rather than a generalized claim to regional validity.

This is significant because internationalization in higher education often emphasizes the positive outcomes of mobility and the cultivation of a “global citizen” through “cross-cultural” communication while neglecting the cultural politics of these outcomes. Students might be encouraged to become “global citizens”; however, the conceptualization of “global citizen” may be derived from the dominant institutional and linguistic logics. In the English for Specific Purposes context, students engage in a global conversation utilizing the English language while remaining positioned in their respective locales. Their engagement is in a context of contestation because they are expected to articulate the environmental situation in Indonesia utilizing a lexicon and discourse that is globally accessible.

Placing sustainability learning within this inter-Asia and language-mediated framework, the study explores how students contextualize global environmental discourse relative to their own cultural and educational contexts. This adds to the study’s framework of Asian higher education as an active participant rather than a background. This adds to the framework of cross-cultural learning as not only exposure to differences but also the process of analysis, interpretation, and placement, allowing for a more nuanced understanding (Bandari et al., 2024; Barraclough et al., 2023).

This study does not make an empirical claim that the participants actively engaged with multiple Asian national contexts. This study adds to inter-Asia scholarship from the Indonesian educational context. It is a significant

differentiation. From a cross-cultural perspective, the question is how a global educational model is adapted to fit a local context. From the inter-Asia perspective, the question is how the global educational model alters its framework in relation to Asia. From this perspective, the Indonesian students do not serve as representatives of "Asia" as a homogeneous category. Their practices serve as an example of how global educational models of sustainability are contextually appropriated and theoretically constructed from an Asian context. The differentiation is more methodological and based on how an Indonesian context can contribute to discussions on the sustainability of educational models from an Asian perspective.

Language-Mediated Sustainability Learning and Discursive Agency

The circulation of sustainability discourse hinges on the use of language. English is the language in which most global sustainability policies, practices, and academic scholarship are published. For many systems of higher learning in Asia, English is the language of academic and professional mobility. However, English is not a neutral vehicle for communication. It is the medium through which students articulate ideas and local experiences and construct intelligibility in global educational contexts.

In an English for Specific Purpose (ESP)-based learning context for sustainability, learners can use English to discuss environmental problems, explain their images, and document their verbal reflections to wider audiences. While this has the potential to facilitate language learning, it has cultural implications as well. Learners are no longer just learning a new lexicon but are learning how to represent the local environmental challenges in a discourse that is comprehensible beyond the local cultural and institutional settings. In so doing, they may come to possess what can be described as discursive agency (Bandari et al., 2024; Barraclough et al., 2023).

Discursive agency is useful for understanding sustainability education, as environmental issues carry representational and material elements. A neglected public space, a toxic drainage ditch, or a mountain of plastic is socially meaningful once they are identified, framed, and discussed. Students are taking part in the broader sustainability discussion by describing these issues in English, but this also has the potential to compress and even erase the problem's local context. The challenge of language-sustained sustainability education is therefore to provide scaffolding for the integration of global semantics with local contextual framing, without substituting either of the components.

For the purposes of this study, English-mediated student reflections are seen as negotiation spaces. In these spaces, students are positioned between local and global. Students articulate environmental issues in ways that are shaped by their personal and cultural experiences as well as the language of the international program and classroom. Therefore, the reflections and narratives describe the ways in which sustainability is made communicable, sharable, and actionable in a cross-cultural context.

For this study, discursive agency is the communicative aspect of glocal sustainability agency but is not equated with the agency itself. Discursive agency concerns the articulation of environmental meaning. In contrast, glocal sustainability agency concerns the situated integration of local context, sustainability discourse, representational frameworks, and corresponding implicit accountability.

Photovoice, Visual Culture, and Participatory Representation

The participatory visual methodology of Photovoice offers participants a chance to both photograph aspects of day-to-day life and interpret and speak to the issues that are shown in the photographs. In many fields, including public health and education, Photovoice has emerged as a popular method. Because it gives participants a way to speak to the interpretation of a visual representation, Photovoice is beneficial as a research method. Additionally, unlike many of the methods that regard the participant as a verbal data point, participants can take on the role of a visual narrator and the co-creator of the knowledge being produced.

Photovoice can take on the role of both a research methodology and a pedagogical method in the classroom. Photovoice encourages participants (in this case, students) to take a critical view of their surroundings and choose meaningful scenes. For Photovoice, a scene is more than a mere container of everyday objects; it is a visual prompt for some form of reflection. This approach to sustainability-focused education is particularly important (Padilla et al., 2024). This is because many of the problems we face as a society are in the environment and are masked by our everyday routines. These problems can include, but are not limited to, public negligence, varying forms of waste and consumption, the state of our green spaces, and various forms of transportation. These scenes can easily be made to look "normal." However, once students are encouraged to actively interpret and photograph these things, their "normality" can be expressed (Macpherson et al., 2026; Willett et al., 2021). This study places particular importance on the visual dimension of photovoice. Photographs are not literal recordings of an event. They are constructed through the photographer's selection, framing, angle, distance, focus, inclusion/exclusion, and the symbolism reflected in their photos. All of which are aspects of a photographer's viewpoint as it pertains to the sustainability issues and their relation to those concerns. For instance, a photograph of discarded plastic taken at a close distance may foreground individual responsibility

for consumption, while a photograph of a neglected, large public space may foreground the collective responsibility for the deterioration of the environment.

This is how photovoice connects culture studies. Sustainability issues are not simply represented in a photograph; rather, sustainability issues are evidenced in the photographs by the medium of the students' personal environmental reflections. For example, in students' photographs, plastic may signify unsustainable levels of personal consumption, while green plants may signify an aspiring personal contribution to ecological restoration and healing, and the repair of public and private spaces may suggest restoration of personal and societal responsibility. Consequently, the photographs serve multiple purposes.

This is referred to in this study as the concept of visual cultural mediation. Visual cultural mediation indicates that through the social and environmental discourses depicted to others by students in their photographs, students move from seeing and interpreting to narrating and communicating. Photovoice not only encourages students to communicate their observations but also encourages them to frame their personal and social environments as meaningful to others. It invites others to sustain their engagement with the environment as a cultural process. This is why sustainability learning through photovoice is particularly helpful in the examination of cultural sustainability practices.

The SHOWeD reflective framework enriches this process by leading students through description to interpretation and potential action. The framework asks students to answer the questions: what do you see? what's going on? how does the issue affect you? why is this issue here? what can/should be done? The aim is to demonstrate how a photograph can initiate critical reflection, rather than a single, isolated image. This framework aids students in transitioning from what they notice visually, to social interpretation, to critical reflection and situated agency.

Glocalisation, Agency, and Sustainability Subjectivity

This research draws on glocalisation theory. Glocalisation is the theory of how global ideas, practices, and discourses are moulded, adapted, and translated within the local context. It also critiques the overly simplistic differentiation of local and global. For instance, the global can only be understood and shaped by local contexts. Sustainability exemplifies this theory. Students engage with global discourse through specific local contexts and cultural frameworks. Global discourse covers climate change, SDGs and environmental responsibility, but students experience them through local contexts. Urban and rural communities, local environments and social structures, and local cultural practices and frameworks.

In this study, glocalisation is not used as a slogan but as an analytic for understanding how students connect global sustainability discourse with local environmental experience. The students' photographs begin with the local: a visible object, place, or practice in their surroundings. Their reflections then connect these local images with broader concerns such as waste, consumption, climate action, or collective responsibility. Glocalisation therefore occurs through visual selection, reflective narration, language-mediated explanation, and possible everyday action.

Agency is also central to this study, but it must be carefully defined. Agency does not mean that students become fully empowered leaders or large-scale activists after participating in a short learning programme. Rather, agency refers to students' developing capacity to interpret their circumstances, recognise responsibility, communicate concerns, and imagine possible action. It is situated because it is shaped by what students can realistically do within their everyday lives, communities, and educational contexts (Aprimadya, 2025).

Existing concepts illuminate important but partial dimensions of the process examined here. Situated agency explains that the capacity to act is shaped by context, but does not necessarily account for movement between globally circulating discourse and local representation. Ecological or sustainability agency foregrounds environmentally oriented action, but may understate the visual and linguistic processes through which environmental problems first become meaningful to actors. Discursive agency captures the capacity to name, narrate, and communicate concerns, but does not by itself explain how such narration becomes connected to local environmental observation and everyday self-positioning. Glocalisation, meanwhile, explains the interaction of global and local processes but does not necessarily specify how individual learners develop an agentic position through visual, linguistic, and reflective practice.

Glocal sustainability agency is proposed to address this analytical intersection rather than to replace these neighbouring concepts. It refers to the culturally situated capacity to (1) identify environmental concerns within lived local environments; (2) interpret those concerns in relation to globally circulating sustainability discourse; (3) represent and negotiate that relationship through visual and linguistic practices; and (4) position oneself as capable of contextually feasible forms of responsibility or action. Its analytical distinctiveness therefore lies in integrating situatedness, global-local discursive translation, multimodal representation, and emerging action within a single process-oriented construct.

Discursive agency constitutes one dimension of this broader construct rather than a synonym for it. A student may demonstrate discursive agency by being able to describe and communicate an environmental concern. Glocal sustainability agency requires an additional relational movement: the concern is grounded in a local environmental experience, connected to wider sustainability discourse, represented through visual and/or linguistic resources, and linked to a developing position of responsibility. The construct is therefore useful for explaining not merely whether students know, speak, or act, but how these processes become connected across local experience and globally circulating sustainability meanings.

The inter-Asia dimension contributes to this concept by challenging the assumption that sustainability agency is produced only by adopting global educational frameworks. Instead, agency is understood as emerging from Asian students' situated encounters with global discourse, local environmental conditions, English-mediated communication, and cross-cultural learning spaces. In this sense, glocal sustainability agency helps explain how students in Asian higher education negotiate sustainability not simply as policy content, but as a lived, visual, linguistic, and cultural practice.

Conceptual Framework: From Global Discourse to Glocal Sustainability Agency

This study aims to develop glocal sustainability agency through the lens of photovoice-based sustainability learning. The framework begins with global sustainability discourse including the SDGs, climate action, and ESD and global citizenship education. These discourses enter the learning context through the TAG international virtual mobility programme and the ESP classroom. The framework does not perceive students as passive recipients of these discourses. Instead, the framework assumes students will actively translate, negotiate, and reinterpret these discourses.

Local environmental observation is the next step within the framework. Students document sustainability issues that they encounter in their local context using photographs. This step is important as it helps students engage with the global sustainability discourse as it relates to their lived experiences. Students begin this process by observing the social and environmental issues framing local contexts rather than focusing on abstract policy and discourse (Eide et al., 2021).

The second stage is visual representation. At this stage, students are able to demonstrate their analytical ability by taking photographs and framing their issues in ways that foreground specific meanings. This ability to frame issues allows students to visually articulate what sustainability means to them. Photographs can become critical cultural texts that link students to their material environments.

The third stage is based on the SHOWeD method and pertains to reflective thinking. Students are guided to elaborate from a description in a sequence that includes a personal dimension, structural questioning, and the articulation of possible actions. This stage is important because the photographs students take are transformed from recordings of some event to reflective narratives. It also helps to construct the links between students' responsibilities and the local environmental challenges.

The fourth stage is language-mediated communication. The photographs and reflections that students transport from the classroom learning environment are explained in English. This stage is important because it reveals how meanings regarding local environmental concerns are expressed in a communicable format. English is the language that students use to articulate their concerns regarding sustainability, but it also reveals the local meanings that must be negotiated.

The fifth stage is program-mediated comparison. Students share their local observations and can place them within broader sustainability concerns. This stage is important for developing sustainability thinking and is not considered an example of a comprehensive inter-Asia exchange, but of an empirically supported framing of the local environmental context within sustainability thinking.

The final stage is glocal sustainability agency. This agency occurs when students identify the relationship between local environmental concerns and global sustainability issues, express those relationships both visually and verbally, and begin to view themselves as responsible actors. The outcome does not have to be the attainment of formal or informal leadership or the transformation of social identity to any great extent. More realistically, it may be seen as a growing sense of self-efficacy, the adoption of sustainable practices, the confidence to communicate, and an increasing sense of responsibility.

This stage in the framework is intended to highlight the understanding that sustainability learning is not the simple transfer of global knowledge to local students in a linear fashion. It is a complex interrelated process involving the circulation of discourse, the observation of local contexts, the visual representation of those contexts, reflective interpretation, translation through language, cultural negotiation, and context-specific action. The visual entry point is provided by Photovoice, the SHOWeD reflection is a tool for deepened interpretation, and the mediation of communication is achieved using the ESP, while cross-cultural learning creates the opportunity for comparison and repositioning. These processes in combination, help to explain how students in the Asian context of higher education begin to develop glocal sustainability agency.

Methodology

Research Design

The present study utilized a qualitative participatory research design to understand the construction of sustainability meanings by Indonesian undergraduate students through the intersection of Photovoice and language learning. Qualitative design facilitated the study in focusing on the students' meanings through their visual representations, reflective interpretations, communicative positioning, and the development of their situated agency, as opposed to focusing on the statistically measurable outcomes. The intent was not to develop generalizations for the entire continent of Asia, but rather to understand the contextualized environment of a limited number of students and how they interpreted global sustainability discourse by observing their local environment, reflecting in English, and participating in a virtual sustainability learning course.

Photovoice served both as a pedagogical method and as a research method. Used as a pedagogical method, it served the students in the observation of their surrounding environment, the documentation of sustainability issues through the lens of a camera, and the development of critical reflection on the meaning of the sustenance of the images captured. The use of Photovoice as a research method facilitated the authors in the analysis of the visual, written, and oral data and how students chose, framed, narrated, and interpreted the issues. The dual nature of Photovoice made it an appropriate method for studying sustainability learning and the processes of meaning-making, cultural construction, and situated agency.

The study was based on participatory and interpretative frameworks. Students were not merely considered respondents. Students had the agency to select the environmental issues in need of research, write SHOWeD reflective narratives, present their opinions to the class, and interpret their narratives in semi-structured interviews. This study design interprets the locally driven understanding of sustainability in student contexts as opposed to the externally driven articulation of sustainability expressed in global policies.

This manuscript is aimed at the inter-Asia cultural studies readership. The study is carefully framed to not attempt to offer a broad comparative analysis of the higher education systems in Asia or to represent inter-Asia learning in general. The focus of this study is the Indonesian students. In what follows, the Take Action Global (TAG) program is examined as a virtual learning environment in which students engage with global discourses of sustainability and local environmental concerns. Cross-cultural learning is only discussed when students refer to it in their reflections, peer discussions, or program-based comparisons. This study is carefully framed so that its conclusions are relevant to the evidence provided.

Research involving participants and participant visual materials was conducted for the duration of the study approved by the university ethics review board, in accordance with the ethical approved case, (Ethics Approval No: 2026/OU/EAC/02/0135).

Research Context

This particular study was centered within an English Education program situated within a higher education institution in Surabaya, Indonesia. The participants within this study were undergraduate students who participated in sustainability-oriented learning activities that were integrated with the Take Action Global (TAG) international virtual mobility program. TAG offered the participants a location within a wider program that integrated sustainability, climate action and global environmental concern, while the ESP classroom provided the context in which participants were engaged in the photovoice and reflection tasks within the program.

The learning program was enacted within a specific context of English for Specific Purposes (ESP). Within this context, English was used not simply as a linguistic skill, but a language of sustainability. Within learning activities, students used the English language to identify local environmental problems, describe the meanings of their images, and articulate their thoughts. Given the students' need to narrate local environmental issues in a way that was understandable to an audience outside the locally immediate environment, this context was of great importance.

The TAG-related activity and research procedures happened between 10 February and 30 March 2026, as part of students' ESP learning experience. The research focused on the activity, which included sustainability oriented TAG-related activities, Local Environmental Observations (LEOs), students' photography with written reflections, sharing, and semi-structured interviews. The external aspect of the activity was program mediated. Thus, multiple national cohorts did not partake in comparative research activities. Therefore, wider or cross-contextual aspects are derived from the program environment, learning materials, and participant reflections, and not from a systematic, multi-country, cross-contextual based dataset.

The semi-structured interviews were approximately 30-45 minutes in length, and took place in either English or Indonesian, dependent on the interviewee's preference. Switches between English and Indonesian were permitted, and necessary, as this was important for the interviewee to describe their experiences in the way they meant to. Translations were done for quoted parts offered in Indonesian, and the translated quotes were

checked against the original to keep semantic meaning and context. The lead researcher was familiar with the participants and the context for the research because of his previous work with the participants in related activities and in the related research area. The research activities were kept separate from the activities related to the participants' evaluations, and the choice to participate did not affect the participants' course or their evaluations. It was explained to participants that they could withdraw from the study with no consequences and that they could skip any and all questions. It was also explained that their participation was voluntary and that the study would be done with no identifying information.

The study investigated an Indonesian student cohort. In light of the study, three tiers of context were developed. The first is the local context, which incorporates the students' daily environments and includes the campus, neighborhood, and public spaces. This also includes the places where the students noticed the presence of the pertinent issues regarding sustainability. The second is the program context. This includes the TAG virtual learning space that introduced worldwide sustainability issues and urged the students to relate local problems to global environmental discussions. The third is the cross-cultural or inter-contextual dimension. This is when students drew parallels between their local observations and the large-scale views they encountered from the program materials, peer collaborations, or the virtual learning exercises.

The inclusion of this separation is significant, as participation in a virtual mobility program does not instantly result in profound cross-cultural transformation. The study also does not view cross-cultural learning as an automatic result. It rather seeks to understand if and in what way the students' photographs, reflections, and interviews made space for evidence of comparison, translation, or repositioning in the context of sustainability discourse. Therefore, the study offered an opportunity for an analysis of the local and the global without overextending the confines of the dataset, as shown in Table 1.

Table 1. Research context and analytical relevance

Contextual element	Description	Analytical relevance
Institutional setting	English Education programme at an Indonesian higher education institution in Surabaya	Locates the study in Indonesian higher education
Programme setting	TAG international virtual mobility programme	Provides access to global sustainability discourse and virtual learning activities
Pedagogical setting	ESP-based sustainability learning	Positions English as a medium for sustainability communication
Local setting	Students' campus, neighbourhood, public spaces, and everyday environments	Provides the visual and experiential basis for photovoice
Cross-cultural/inter-contextual setting	Programme-mediated comparison with wider sustainability perspectives	Analysed only when supported by student reflection, discussion, or interview evidence
Data-generation period	10 February–30 May 2026	Clarifies that data were collected within a bounded classroom-programme activity
Interaction format	Orientation, local observation, photograph submission, written reflection, peer sharing, research process and interview	Clarifies the structure of the learning and research process

Table 1 summarises the research context and its analytical relevance. The study was situated within an English Education programme in Surabaya, Indonesia, and embedded in the TAG international virtual mobility programme and ESP-based sustainability learning. Photovoice activities drew on students' everyday local environments, while cross-cultural interpretations were considered only when supported by participants' reflections, discussions, or interview data. Data were generated from 10 February to 30 May 2026 through a structured sequence of orientation, observation, photograph submission, written reflection, peer sharing, and interviews.

Participants

The participants were six Indonesian undergraduate students enrolled in an English Education programme who participated in the TAG-related ESP sustainability learning activity. They are referred to as Student A, Student B, Student C, Student D, Student E, and Student F to protect their anonymity. The small number of participants was appropriate for a qualitative photovoice study because the method required intensive engagement with each participant's photograph, written reflection, discussion contribution, and interview narrative.

Participants were selected through purposive sampling. The selection criteria were as follows: participants had to be enrolled in the relevant ESP learning context, participate in the TAG-related sustainability activity, complete the photovoice task, submit a SHOWeD-based written reflection, take part in peer discussion, and agree to participate in a semi-structured interview. These criteria ensured that all participants had direct experience of the learning process being studied and could provide visual, textual, and spoken data.

The participants were not selected to represent the statistical diversity of Indonesian students or Asian higher education. Rather, they were selected as information-rich cases who had completed all stages of the photovoice-based activity. Their participation allowed the researchers to examine how students observed local environmental issues, framed them visually, narrated them through English, and reflected on their sense of responsibility and agency, as shown in Table 2.

Table 2. Participant profile and data contribution

Participant	Nationality	Academic background	English TAG-related sustainability activity	ESP	Photograph, SHOWeD reflection, peer discussion, interview
Student A	Indonesian	Undergraduate Education student	English TAG-related sustainability activity	ESP	Photograph, SHOWeD reflection, peer discussion, interview
Student B	Indonesian	Undergraduate Education student	English TAG-related sustainability activity	ESP	Photograph, SHOWeD reflection, peer discussion, interview
Student C	Indonesian	Undergraduate Education student	English TAG-related sustainability activity	ESP	Photograph, SHOWeD reflection, peer discussion, interview
Student D	Indonesian	Undergraduate Education student	English TAG-related sustainability activity	ESP	Photograph, SHOWeD reflection, peer discussion, interview
Student E	Indonesian	Undergraduate Education student	English TAG-related sustainability activity	ESP	Photograph, SHOWeD reflection, peer discussion, interview
Student F	Indonesian	Undergraduate Education student	English TAG-related sustainability activity	ESP	Photograph, SHOWeD reflection, peer discussion, interview

Table 2 presents the participant profile and individual data contributions. The study involved six Indonesian undergraduate students enrolled in an English Education programme and participating in a TAG-related ESP sustainability activity. Each participant contributed multiple forms of qualitative data, including a photograph, a SHOWeD-based reflection, peer discussion, and an individual interview, enabling triangulation across visual, written, and verbal sources.

Photovoice Procedures

The photovoice process was conducted through five interconnected phases.

In the first phase, students participated in an orientation on sustainability, climate action, the SDGs, photovoice, and visual ethics in accordance with the approved research protocol. Before generating research data, participants provided written informed consent and were informed of their right to decline participation, withdraw from the research, or withdraw individual participant-generated photographs without academic penalty.

In the second phase, students photographed sustainability-related issues in their local environments. They were encouraged to observe everyday spaces critically and identify environmental problems, practices, or symbols that were meaningful to them. The photographs focused on visible sustainability-related concerns such as waste, plastic use, public space, natural elements, consumption practices, or environmental neglect. Students were asked to select images that they could explain in relation to their own lived experience.

In the third phase, students wrote reflective narratives using the SHOWeD framework. SHOWeD refers to five reflective prompts, including "What do you see here?" What is really happening here? How does this relate to Our lives? Why does this situation, concern, or strength exist? What can we do about it? These prompts guided students from visual description to interpretation, personal connection, structural questioning, and possible action.

In the fourth phase, students participated in peer discussions and semi-structured interviews. Peer discussions allowed students to share their photographs and reflections, compare interpretations, and discuss how local environmental issues related to wider sustainability concerns. Semi-structured interviews were then conducted to gain deeper insight into students' visual choices, reflective meanings, language-mediated communication, everyday practices, and emerging sense of agency.

In the fifth phase, the researchers analysed the photographs, SHOWeD reflections, peer discussion notes, and interview transcripts. The analysis focused on how students constructed meanings of sustainability, how they connected local environmental experience with global sustainability discourse, and how visual and linguistic practices supported emerging glocal sustainability agency.

The photovoice process was organised as a structured sequence that moved students from sustainability orientation to local observation, visual documentation, SHOWeD-based reflection, peer or programme-mediated dialogue, visual-textual analysis, and interpretation of emerging agency, as shown in Figure 1.

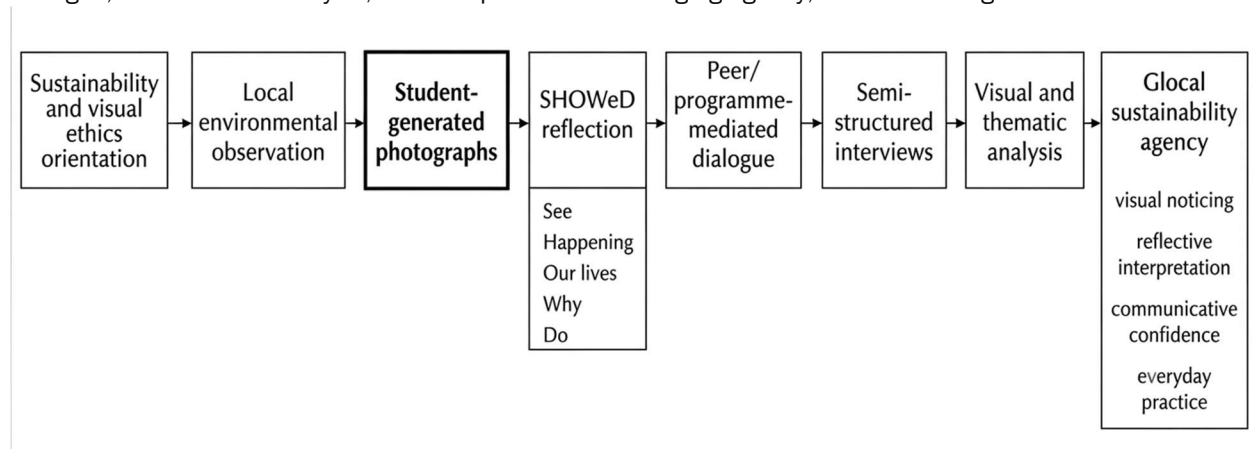


Figure 1. Photovoice and SHOWeD reflective process.

Figure 1 illustrates how photographs were positioned not as isolated visual products but as prompts for reflection, dialogue, and interpretation. The process shows that photovoice functioned as a structured learning cycle through which students moved from observing environmental issues to narrating their meanings and considering possible forms of everyday action.

Data Sources

The study used multiple data sources to capture the visual, reflective, dialogic, and experiential dimensions of students' sustainability learning. These data sources were used for triangulation so that the findings were not based on interview quotations alone. Student photographs provided visual evidence of what participants chose to notice and represent. SHOWeD reflections showed how students interpreted the images. Peer discussions captured how meanings were shared and negotiated. Semi-structured interviews provided deeper explanations of students' experiences, visual choices, language use, everyday practices, and emerging agency, as shown in Table 3.

Table 3. Data sources and analytical purpose

Data source	Description	Analytical purpose	Link to research questions
Student photographs	Student-generated images of local sustainability issues	To analyse visual selection, framing, symbolism, and local environmental meaning	RQ1
SHOWeD reflections	Written responses to structured reflective prompts	To examine how students moved from observation to interpretation and possible action	RQ1 and RQ2
Peer discussions	Group sharing of photographs and reflections	To examine shared interpretation, comparison, and programme-mediated dialogue	RQ1 and RQ3
Semi-structured interviews	Follow-up interviews with each participant	To explore visual choices, language-mediated reflection, everyday practice, and emerging agency	RQ2 and RQ3
Researcher notes	Notes on classroom activity, programme implementation, and reflexive observations	To support contextual interpretation and maintain an audit trail	RQ1, RQ2, and RQ3

As shown in Table 3, the inclusion of photographs as primary data was central to the study. The analysis therefore did not treat images merely as illustrations. Instead, photographs were analysed together with students' written and spoken narratives to understand how visual representation contributed to sustainability meaning-making.

Data Analysis

Thematic and visual-compositional analyses were the primary methods of analysis. This research aimed to identify themes in written reflections, peer discussion notes, and interview transcripts using thematic analysis. Visual-compositional analysis examined the photographs as visual texts. By integrating thematic and visual-compositional analyses, researchers were able to explore both the verbal and the visual means of the students' representation of sustainability.

The first phase of analysis was termed data familiarisation. The researchers sampled the SHOWeD reflections and interview transcripts multiple times while perusing the photographs presented by each participant. This phase also involved researchers listing and recording the issues participants tended to raise. The issues included the waste, use of plastic, the neglect of the public and the environment, personal responsibility, an explanation mediated by language, and the local-global connection.

The second phase was termed visual description. The analysis of each photograph focused the content that each photograph made visible, the context in which the photograph was taken, the main focus of the photograph, the presence of people, foreground and background, distance, and the framing and composition of the photograph. The third phase was termed visual interpretation. This analysis was aimed at understanding the sustainability issues of concern that the images represented. This analysis focused the photographic framing, the choice of objects and photographic settings, photographic contrasts and comparisons, and the photographic evidence of sustainability issues and responsibility. This analysis was aimed at understanding students' narratives by examining the photographic choices they made and was not aimed at providing meaning to the images from external sources and contexts.

The fourth step was elaborating on codes both narratively and thematically. Local environmental coding of reflections expressed in SHOWeD, peer discussion notes, and interview transcripts was focused on the following themes: sustainability awareness, visual meaning making, English-mediated explanation, program-mediated comparison, habitual action, and developing agency. This process was iterative, and codes were modified as the analysis demanded.

During the fifth step, visual, written, and oral data were examined simultaneously. Multiple data sources were consulted for each developing theme. If a theme appeared in a student photograph, was described in the SHOWeD reflection, was deliberated on in peer dialogue, and was specified in the interview, then the theme was regarded as substantiated. Themes that relied on data from only one source were deemed less significant.

The sixth step was comparative across cases. The researchers observed the six participants for the purpose of identifying common themes, and on the other hand, deciding where individual cases fell, and where the most observations were drawn. This step was essential, as one citation alone per theme was not enough.

Data was organized using NVivo, which also supported coding and maintaining an audit trail. The software facilitated the comparison of photographs, reflections, discussion notes, interviews, and notes from the researchers. However, the development of themes was intentional and guided by the research questions and the conceptual framework, as shown in Table 4.

Table 4. Visual and thematic analysis procedure

Stage	Analytical focus	Guiding questions
Data familiarisation	Reading reflections and interviews; reviewing photographs	What sustainability issues recur across the data?
Visual description	Content, setting, object, framing, angle, foreground/background	What does the photograph show? How is the issue framed?
Visual interpretation	Symbolism, inclusion/exclusion, representation of responsibility	What meanings are suggested by the image?
Narrative coding	SHOWeD reflections, peer discussions, interviews	How does the student interpret the image?
Triangulation	Comparison across visual, written, and spoken data	Does the theme appear across more than one data source?
Cross-case comparison	Comparison across six participants	Is the theme shared, limited, or divergent?
Theme refinement	Final theme development	How does the theme answer the research questions?

Table 4 summarizes that this analytic procedure fulfilled one of the study's central methodological requirements. Photographs were analyzed as visual data, not as ornamental evidence. This analysis made it possible to connect

photovoice to cultural representation, the discourse of sustainability, and glocal agency by examining both the image and the student's interpretation of the image.

Trustworthiness and Reflexivity

The trustworthiness of the study was enhanced through multiple strategies. Credibility was bolstered by the inclusion of photographs, SHOWeD reflections, peer discussions, interviews, and researcher notes. This variety ensured that themes were not derived from isolated excerpts.

Member checking occurred after the preliminary themes had been identified. Participants were invited to see researcher summaries and interpretations of their photographs and narratives. Participants were asked if the researcher interpretations were aligned with the participants' intentions. If any of the researcher answers required elaboration, participants were asked to offer that elaboration. Feedback from participants was used to alter the interpretations.

An audit trail was kept addressing the dependability of the findings. This included a record of every step taken during the photovoice research process, from the orientation to the final photographs. The audit trail ensured that the process and outcomes of the analysis were clear and consistent.

Confirmability was achieved using reflexive notes. The researchers documented their reflections on pre-existing beliefs, their roles, and the potential effects on data analysis. This was necessary due to participants possibly being familiar with the researchers and the program. The researchers' reflexive attitude prevented them from making positive assumptions regarding the program's outcomes or making claims that were too bold regarding the outcomes of cross-cultural learning and agency.

Thick descriptions pertaining to the research context, participants, the program, the photovoice methodology, and the analysis provided the necessary transferability. While few participants took part in the study, a thorough description was provided to help future researchers see applicability in other contexts for sustainability learning, ESP, photovoice, and other Asian higher education studies.

Negative and divergent cases were considered in the study. Where participants failed to report behavior changes, cross-cultural differences, or expressed limited agency, these cases were included in the study and would help explain the lack of reporting in behavior changes and an overly positive account of student transformation.

Ethical Considerations

Ethics approval was obtained from the PAGORA Ethics Committee for research conducted from 10th February 2026 to 30 March 2026 (Ethics Approval No. 2026/OU/EAC/02/0135) on 5 February 2026. This approval was for the study's qualitative participatory design and the photovoice and data collection methods, which included student photographs, SHOWeD-based reflections, peer conversations, semi-structured interviews, and researcher notes. The review assessed the informed consent process and the measures taken to ensure confidentiality, data protection, and visual ethics.

All study participants were adult undergraduate students. They all provided informed consent, which included information on the purpose of the study, the data that would be collected, the potential uses of the data, and their rights as participants. Participation was voluntary, and the participants were free to decline to partake or withdraw from the study at any time. There were no negative consequences for the participants from a voluntary decision to participate, decline to participate, or withdraw from the study. Participation in the study was not linked to any academic assessments. The decision to participate, not to participate, or withdraw from the study would not impact the participants' grades or the undergraduate course.

To ensure the participants' anonymity, they were assigned pseudonyms (Student A to Student F). Because visual data was generated by the participants, additional measures were taken to safeguard the ethics of visual data. Participants were instructed to avoid photographing identifiable individuals, sensitive or private places, vehicle registration plates, institutional or personal documents, computer screens, or data that would potentially identify individuals. Any photographs that contained personal or sensitive information were either substituted with appropriate text or anonymized.

Withdrawals of participant photographs, or participant materials, from the research were permitted. Consent was given for photographs to qualify as research data and for inclusion in publications. Where researchers were unable to reproduce images due to a lack of participant consent, privacy, or confidentiality concerns, original photographs were substituted with anonymised textual descriptions and published data were supplemented with analytical descriptions.

Participant data included student photographs and participant written reflections, session documentation, transcripts, and researcher notes. All data were stored securely and only accessed by members of the research team. Participant data were subjected to authorized research only, and were treated in accordance with the research protocol's data protection and participant confidentiality considerations. This study was designated minimal risk, when the approved participant safeguards for moderation of academic engagement, confidentiality, participant generated visual data, and consent were maintained.

Findings

The following section outlines the results of the study based on participant photographs, SHOWeD reflections, peer discussions, and semi-structured interviews, researcher reflections. The results demonstrate participant meaning making of sustainability through visual observation and verbal reflection, moderated by the English language, and supplemented by program comparison. The results of the study go beyond treating photographs as supporting data.; instead, they examine photographs as visual data/text and reflect participant focus, concern for contextual environmental issues, and connections of local settings to broader sustainability discourse.

Results are structured along five interrelated themes. In comparison to the initial coding scheme, the themes have been modified to limit the extension of claims regarding leadership and deep identity transformation. The themes are as follows: (1) recognizing previously ignored contextual factors of the surrounding environment; (2) drawing local sustainability challenges and concerns via a visual lens; (3) transcribing local contextual factors into English-mediated sustainability narratives; (4) relating local contextual factors with broader sustainability discourse through program-mediated contrasts; and (5) nurturing everyday sustainability agency and cautious self-positioning.

Most of the evidence was related to the constructs of visual noticing, awareness of the local environment, and everyday situatedness. Evidence pertaining to the constructs of formal leadership and deep identity transformation was scarce. Consequently, the findings characterize the development of the participating students as emerging glocal sustainability agency, as shown in Table 5.

Table 5 Overview of themes and evidence across participants

Theme	Strongly evident	Moderately evident	Less evident / divergent
Noticing overlooked environmental conditions	Students B, D, F	Students A, C, E	None
Visual framing of local sustainability issues	Students B, E, F	Students A, C, D	None
English-mediated sustainability narration	Students A, C, D	Students B, E, F	None
Local-global or programme-mediated comparison	Students D, A	Students C, F	Students B, E
Everyday sustainability agency	Students C, E, F	Students A, B, D	None
Explicit leadership claim	Student C	Student F	Students A, B, D, E

Based on the findings of Table 5, it is clear that not all themes were reflected with the same degree of strength across the participants. Visual noticing and everyday agency were evident across the majority, while the expression of leadership was seen only in a limited number of examples. Based on the evidence, the photovoice activity promoted the emergence of agency among the participants and the development of self-efficacy, but does not provide sufficient evidence to claim the development of sustainability leadership was prevalent.

Noticing Overlooked Environmental Conditions in Everyday Spaces

The first theme illustrates that photovoice aided the students in recognizing environmental issues that were previously normalized and ignored within their everyday surroundings. Prior to the activity, a number of participants characterized the presence of waste, the neglect of spaces, and the presence of unsustainable behaviors and practices as aspects of their daily routines. However, the activity of documenting these conditions prompted participants to stop, focus, and interpret what they usually passed by and remained indifferent to.

Student B explained:

“This was something I walked past every day, but I never really noticed it until I captured it in a photo.”

— Student B

This statement points out that the act of undertaking photovoice shifted the student’s perception of a space that he/she/they walked by every day and changed the student’s relationship with the problem. The environmental problem was already established, but the act of photographing helped show that it was a problem. In this student’s reflexive SHOWeD response, the photo was transformed from evidence of a messy place to evidence of a larger habitual and collective indifference to why such places are neglected and why it is normal for such places to be neglected.

This statement and the rest of the visual evidence helped support this interpretation. In one of the many examples, a photo was taken to help show the presence of litter along a pathway in a local public or campus-adjacent space. Because there were no people in the photo, the litter and waste along the pathway was completely unrepresented and undiscussed. By capturing the litter and waste in the foreground, the photo shifted the problem of neglect from an unremarkable background to an issue of concern.

Students D and F expressed something similar in their reflections. Both students pointed to local environmental problems and stated they had seen these before but had not previously perceived them as problems of sustainability. Using the SHOWeD framework, Students D and F also began to link environmental disorder to

problems of habits, responsibilities, and a lack of collective care. What this shows is that the act of photovoice moved people from a state of passive seeing to a state of active and critical looking and noticing.

Not every participant had the same interpretation of visual noticing. Student A had an emphasis on the communicative task of explaining sustainability in English, whereas Student E concentrated on the symbolic gesture of caring for the environment. These interpretations show that photovoice did not constrain to a single response, but rather, provided a collective task through which students engaged in sustainability reflection from a multiplicity of starting points.

Photovoice engaged students in differential sustainability reflections using different visual stimuli. This theme demonstrates that students began to interpret the world around them through the lens of sustainability. Classroom spaces, sidewalks, public spaces, waste, and natural items were no longer seen as a neutral or empty backdrop. They are spaces in which students began to see the local articulation of the global sustainability challenge.

Framing Local Sustainability Issues through Visual Representation

The second theme relates to the ways students framed sustainability challenges visually. Photographs showed students did not passively capture environmental issues. Students purposely selected particular things to photograph, as well as the angle and framing that, in their view, illustrated the issue. This kind of framing is important as it illustrates how the students perceived sustainability as an issue that is both local and cultural.

Some photographs showed discarded objects. These included plastic bottles, waste disposal units, plants, public places, and damaged and neglected environments. All of these, while visually simple, were indicative of students' deeper reflections. Plastic waste was indicative to many of students the problems of poor consumption. Plants and green spaces were interpreted as shows of care, hope, and responsibility toward the ecology. Neglected public spaces were viewed as evidence of an apathy toward the environment and poor collective responsibility.

Visual analysis of photographs showed three main representation styles. First, a number of students considered Close-Up framing, whereby a small object is made to seem very significant. For example, a photograph of plastic waste framed the object to the near center of the picture, and in doing so, made the sustainability issue of everyday plastic consumption visible. Second, students used wider framing to illustrate the relationship of an environmental issue to the surrounding space. These photographs were evidence of the fact that sustainability challenges relate to both an individual and a collectively shared environment. Third, students photographed various objects of nature, including plants and sunlight, and used framing to show hope and responsibility for restoration and remediation of our damaged environment, as shown in Table 6.

Table 6 Representative visual patterns in the photovoice data

Visual pattern	Representative image content	Visual meaning	Related interpretation
Close framing of waste	Plastic bottle, discarded items, visible trash	Makes consumption and neglect difficult to ignore	Sustainability begins with everyday habits
Public-space framing	Waste or neglect in shared spaces	Shows environmental issues as collective rather than private	Responsibility is social and communal
Symbolic natural imagery	Plants, green areas, sunlight, natural objects	Represents care, hope, or ecological repair	Sustainability includes emotional and ethical connection
Absence of people	Environmental object shown without identifiable individuals	Avoids blaming one person and shifts focus to practice/system	Problem is linked to shared habits and normalisation
Local familiar setting	Campus, neighbourhood, street, or public area	Grounds global sustainability discourse in lived space	Global issues become meaningful through local experience

The visual patterns, as shown in Table 6, became meaningfully analytical with the participant's individualized narratives. For example, Student B's photo that contained foreground waste on a quotidian pathway used waste to transform a frequently ignored object into the main visual focus. Student B characterized the pathway as something he/she passed by on a daily basis and did not pay sustained attention to until it was captured. The interpretation of "critical noticing" emerged from the waste's visual prominence, the SHOWeD reflection on the scene's normalizing character, and the interview assertion that the capture of the scene altered the student's environmental outlook focus.

A different image logic was present with Students E and F. When naturally occurring or environmentally acting objects were visually emphasized, the images focused on the representation of care, possibility, and environmental responsibility. These characterizations were not derived from visual symbolism alone. They were characterized on the participant's reflection focus and their narrative accounts of daily acts and environmental

responsibility. For example, Student F's reflection on his/her personal choice to utilize a reusable water container provided a narrative focus that framed the image of plastic container consumption with an emphasis on daily autonomy.

Photos that lack identifiable people will not automatically be interpreted as structural critique. This absence of people, when combined with the participants' narratives, caused a shift in focus away from identifying a specific perpetrator and toward the contextual normalization of practices and surrounding conditions. The absence of people in photographs, combined with the absence of people in quotes, showed that a photograph and a quote from an interview serve as a complement to each other and are not sufficient standalone resources. SHOWeD, peer discussions, and interview descriptions were utilized to describe how the participants addressed the environmental issue at hand.

As shown in Table 6, photographs and the accompanying written reflections had analytical depth and captured the way participants represented sustainability through the arrangement and selection of objects and the use of photographs. This is particularly valuable, as it illustrates the central aim of the photovoice method. The photographs were not appendices or embellishments, but integral components of the participants' sense-making processes.

Participants considered that taking photographs enabled them to 'see' how environmental issues were woven into everyday practices. Initially, several participants selected images that represented environmentally obvious behaviors. However, during the reflection stage, they started to contextualize these behaviors in relation to the broader issues of consumption, the duty to care for the environment, and environmental consciousness. This illustrates how visual narration can aid the shift from observation to reflection.

This theme also shows how valuable photovoice is for a cultural studies-based analysis. The images go beyond illustrating environmental issues. Instead, they show how students learned to articulate these issues. Selecting and composing a photo showed how students situated themselves as observers, storytellers, and interpreters of social sustainability issues.

Translating Local Observations into English-Mediated Sustainability Narratives

The third theme shows students translating local environmental insights into sustainability narratives through the mediation of the English language. Because the activity was integrated within the ESP context, students were expected to describe their photographs and reflections in English. Therefore, learning sustainability was both visual and linguistic.

Student A stated:

"We used English to explain climate issues and create learning tools. It helped us understand both language and sustainability better."

— Student A

This statement shows English was not employed solely for the purpose of language learning. It was used to capture and structure environmental thinking. Students were expected to develop their thoughts on the environmental issues, decide how to articulate the challenge, choose the sustainability lexicon, and construct the local challenge to the global sustainability discourse.

The SHOWeD reflections demonstrated that students often began with concrete visual descriptions and extended to the abstract. For instance, students described what was seen in the photograph, explained the context, related the issue to their everyday life, suggested possible explanations, and offered small solutions. This helped students shape their local observations into a sustainability narrative.

The data also indicate that language-mediated reflection developed communicative confidence. Students not only learned how to speak about environmental issues; students learned how to articulate their position as speakers who can talk about local issues in a larger educational context. This was particularly seen in Students A, C, and D, who linked the activity to their skill and ability to articulate concerns of sustainability in English.

The data also indicate that English-mediated communication was of a negotiated nature. Some students displayed more confidence in articulating visible environmental issues than in articulating structural issues and cultural difficulties. This shows that English can be an enabler of communication sustainability; however, it can also be a barrier to that communication when individuals lack the confidence or the lexical resources. Thus, English should not be viewed as a neutral channel and, in this context, was a determiner of what students were able to articulate and how they were able to present local environmental issues.

This finding was interpreted as the concept of discursive agency. Students developed the potential and capacity to articulate, identify and describe environmental issues in English. Their agency was communicative as well; they became able to articulate sustainability as well as local concerns in a wider context and moved to the level of interpretation and presentation.

Connecting Local Experience with Wider Sustainability Discourse through Programme-Mediated Comparison

The fourth theme is about the shift students made from facilitating local observations to an advanced conceptualization of sustainability. Analysing the data provided a basis for students to identify local environmental issues and connect them with sustainability-related issues such as climate change, consumption, waste, and global accountability. However, the evidence of cross-cultural or inter-regional Asian learning, particularly in this case, was a challenge.

Student D reflected:

“I realised that environmental problems are not only local but connected globally, even if they look different.”
— Student D

This emerging local-global consciousness is notable. Student D does not argue that all environmental issues are identical, but that the difficulties in sustainability can differ based on context. The importance of this development is that it shows movement from only recognizing a single local problem to understanding it as part of the larger environmental issues.

In their peer discussions, students reflected on and compared local snapshots and the relation of everyday environmental practices to larger sustainability issues. They began to realize that local concerns, like plastic waste, untended areas, and harmful consumption, were not singular. The issues were part of the larger patterns found in the TAG-related materials, themes, and discussions on sustainability in the classroom.

At the same time, the data do not allow us to make a broad claim that the study provided extensive inter-Asian comparison. The study's empirical evidence was primarily based on six Indonesian students. Thus, this theme is best described as programme-mediated local-global signification, rather than actual inter-Asia cultural exchange. Where students alluded to wider contexts, these were mostly through programme framing, peer sharing, and critical reflection, rather than through detailed documented discourse across different locations in Asia.

This interpretation substantiates the findings. It is justifiable for the researchers to argue that students linked the local context with the global sustainability discourse, but they should refrain from asserting that the data substantiate inter-Asia transformation. The inter-Asia applicability is found, for example, in the way Indonesian students encountered global sustainability discourse from the context of their own Asian region.

Integrating these findings indicates that students engaged with global sustainability discourse in an innovative manner; it was not a case of reproduction. In the first case, students adopted the discourse of environmental responsibility and climate action. In the second case, students attached environmental responsibility to local concerns of plastic pollution and public spaces and to the activities of everyday life. In the third case, students recast sustainability issues in a format that was amenable to the articulation of everyday actions with personally held objects. Lastly, students reframed the notion of responsibility. Rather than interpreting sustainability as an abstract, global responsibility, students reframed sustainability as a responsibility that expressed itself in the articulation of everyday life practices.

In the discourse of sustainability, a duality is unveiled. The global lexicon supplied by the program allows local environmental issues to be framed in the context of global problems, but does not maintain complex structural meanings and may distort them into a framework of individual responsibility. The waste discourse would likely focus on personal consumption and the daily choices of individuals, while the discourse of infrastructure, the responsibility of the institutions, and the political economy would become secondary. Thus, the students did not globally accept sustainability discourse, nor did they openly reject it. They selectively incorporated global sustainability discourse, rendering the discourse locally meaningful and neglecting the rest. In that regard, the translation of the global discourse of sustainability was a culturally and institutionally mediated selection, simplification, and reinterpretation process.

Developing Everyday Sustainability Agency and Cautious Self-Positioning

The fifth theme indicates that photovoice-centered reflections involved the development of everyday sustainability agency. Small changes in how students began to consider their actions, habits, and responsibilities started to become evident. Although small, these changes were meaningful for they represented the shift from awareness to the first steps of practice.

Student F explained:

“I started bringing my own bottle and encouraging others to reduce plastic use.”
— Student F

Bringing your own bottle and encouraging others brings plastic waste to the forefront of thinking and introduces positive changes to personal behavior and the behavior of people in your circles. Although small, positive changes bring about responsibility to act in one's own world, and reflect positive self-positioning.

Due to the lack of longitudinal follow-up in this study and unobtrusive observation of behavior, this statement denotes a clear self-reported behavioral change in everyday practice, and is not evidence of the permanent change of behavior.

Student C also described a developing sense of self-efficacy:

“This program made me realise that I can lead small actions in my community.”
— Student C

Although this statement is important and indicates the development of self-efficacy, the evidence is not sufficient enough to declare the development of sustainability leadership. This finding emphasizes the idea of developing agency and not the development of formal leadership. Initiating actions began to take form in the thoughts of Student C, although the practice of leadership was not present in the data.

Student E reflected:

“Now I think more carefully about my actions. Even small choices matter.”
— Student E

This response indicates incremental improvements of ethical consideration towards small, individual choices, and the effect those choices may have on the environment. However, this should not be interpreted as an identity change. In this case, a more cautious approach may suggest the student engaged in reflective self-positioning, as the student developed the self-identity that their choices have an impact on the environment.

In the data set, everyday agency manifests in three ways. First, students self-reported that their everyday practices had changed, such as reducing the use of plastic and waste. Second, students referred to actions such as explaining sustainability-related concerns in English or reminding others about sustainability and environmental issues. Third, students referred to reflective agency, such as thinking about their everyday choices and what those choices mean for their everyday responsibilities, as shown in Table 7.

Table 7 Forms of emerging sustainability agency

Form of agency	Evidence in the data	Interpretation
Personal practice	Bringing reusable items, reducing plastic use, becoming more careful with waste	Movement from awareness to everyday action
Communicative agency	Explaining photographs, discussing sustainability in English, sharing concerns with peers	Capacity to narrate and communicate environmental issues
Reflective agency	Thinking more carefully about choices, recognising responsibility	Emerging self-positioning as a responsible actor
Peer influence	Encouraging friends or others to reduce unsustainable habits	Limited evidence of small-scale influence
Formal leadership	Explicitly initiating organised sustainability activity	Not strongly evidenced in the present data

When looking at the evidence as shown in Table 7, the most robust evidence relates to the three agents of the personal, communicative, and reflective agency. Evidence for formal leadership is scant. For that reason, participants should be viewed as having developed emerging sustainability agency, and not as if photovoice had engaged participants as sustainability leaders.

While this category expresses how all students had a greater awareness of sustainability, it should be noted that not all students provided evidence of a behavior change. Photovoice allowed participants to express concerns about what may have been a limited change.

Synthesis of Findings: Toward Glocal Sustainability Agency

The studies suggest that photovoice inspired learning that contributed to the development of glocal sustainability agency, but only in a modest, more contextualized sense. Initially, students identified environmental challenges that were apparent in their immediate surroundings. Next, they illustrated these challenges and interpreted them using the SHOWeD method and subsequently articulated them in English and related them to the broader sustainability conversations. Through this, they began identifying small positive changes in their practices, ways of communicating, and how they positioned themselves.

The findings suggest that the development of glocal sustainability agency is justifiable, as students were able to link their local environmental concerns to the global sustainability discourse. However, many of them articulated this agency in limited, partial ways, and it ranged from an emerging sense of agency, to drawing and interpreting, communicating, engaging in small acts of service, and reflecting.

In addition, the findings suggest that the photo aspect of photovoice was crucial. Sustainability photos provided a way for students to engage and inquire about environmental issues. Sustainability photos captured local sustainability issues, and the SHOWeD method provided a way for them to be interpreted. Students used English to narrate the photos to communicate these local sustainability issues in the broader context of learning.

The findings indicate that the study's cross-cultural argument must be constructed carefully. The evidence demonstrates locally and globally contextualized meaning-making and program-mediated comparison but does

not substantiate a strong comparative inter-Asia argument. The more constructive outcome is that Indonesian students used photovoice as a tool to show the local visual and linguistic meanings of the global discourse of sustainability. This is where the study's contribution to inter-Asia cultural studies is located: it demonstrates the re-contextualization of global sustainability discourse within a particular Asian educational context through student voice, visual discourse, and situated agency.

Discussion

From Sustainability Education to the Cultural Translation of Global Discourse

The evidence from this study indicates that sustainability learning through photovoice should not be framed only as an instructional approach to enhancing environmental consciousness among students. More fundamentally, it can be understood as a process whereby students are empowered to transform their local environments and sustain the discourse through visual, linguistic, and ethical means. As such, the students did not perceive sustainability solely as an abstract notion mediated through the language of the SDGs, ESD, and climate action. Rather, sustainability was something they encountered through the various existing environmental challenges manifested in their own surrounds including waste, public neglect and lack of care in their public spaces, and numerous other signs of environmental degradation.

This shift is significant for situating the study among inter-Asia cultural studies. The findings indicate that global sustainability discourse does not enter the Indonesian classroom as a neutral or complete discourse. It is reconfigured by students' local insights, English-mediated explanations, and classroom imagery. Students understood sustainability through what they saw, photographed, described, and connected to their lived experiences. Therefore, the study goes beyond the basic awareness-action model and views sustainability learning as both a cultural and a discursive process.

The reconfigured findings also illuminate why the context of Asian higher education cannot be peripheral to the study. The Indonesian ESP classroom served as a space for global educational discourse, local environmental contexts, and students' own meaning-making to converge. Students were not the passive consumers of global sustainability discourse. They were contextualized meaning-makers, bringing the global discourse to their educational and social contexts through photography and language. This is the cultural-political dimension of the study: sustainability was not simply provided to students; they provided it.

Photovoice as Visual Cultural Mediation

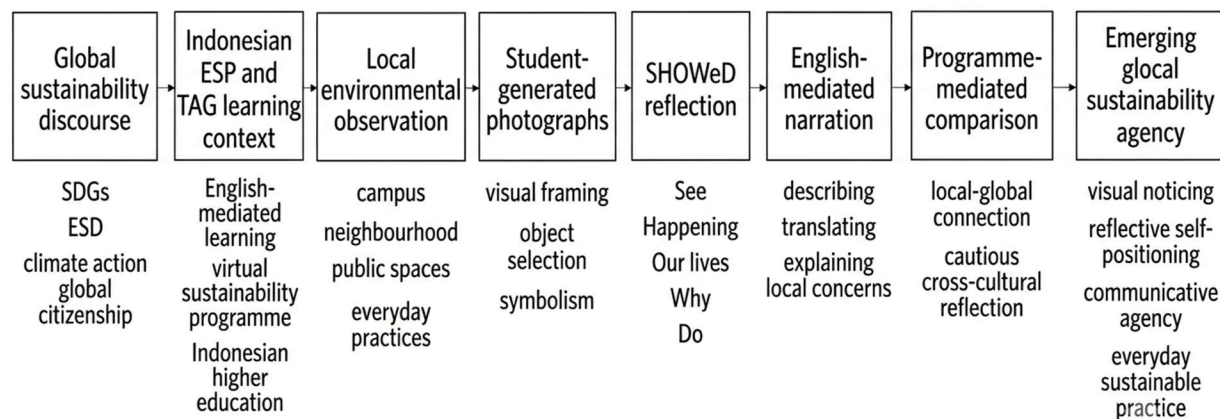
The findings here suggest that photovoice operated as a type of visual cultural mediation. Students did not only capture images of environmental issues; they created visual narratives on sustainability by selecting images, framing objects, and interpreting and contextualizing various spaces. These images of waste, plastic, public space, greenery, and everyday objects held different meanings for the students based on their contextualized local experiences and intentional reflections.

Where visual cultural mediation is concerned, and in the context of photovoice, the photographs assist students in the movement from seeing and interpreting to narrating and envisioning potential social action. This is a significant phenomenon due to the fact that environmental issues can become engrained and, therefore, often overlooked in students' everyday experiences. Although students may repeatedly see waste littered along a path, a plastic bottle, or an abandoned public space, they may not interpret these critically. Photovoice disrupted this process of normalizing environmental issues by encouraging students to frame these situations meaningfully.

The visual data further indicate that students' photographs were, in fact, not passive, neutral representations. When waste was photographed in a close-up frame, the waste and the social responsibility of environmental sustainability were hard to avoid. Capturing public space in a wider frame suggested that sustainability is a social concern and is inextricable from personally held sustainable practices. Care, hope, and the idea of ecological restoration were represented by images of greenery or of plants. The lack of people in the photographs meant the social blame was removed and the focus was on the issues at hand of social and environmental sustainability.

This study's contribution is enhanced by the use of this visual element. For culturally oriented analyses, it's not just the case that students developed more sensitivity to sustainability issues. Rather, they developed the ability to communicate on the issue of sustainability using visual means. Students' photographs functioned as cultural texts in that they made local environmental issues visible and provided means for their interpretation and articulation in broader contexts. Consequently, Photovoice provided a means for capturing students' conceptualizations of sustainability in addition to their verbal articulations of it.

The main interpretive movement of the findings can be represented in Figure 2.



"Agency emerges through translation and interpretation, not direct transfer from global knowledge to leadership."

Figure 2 here: From global sustainability discourse to glocal sustainability agency.

Figure 2 must not be treated as a shorthand for the study's findings. It is meant to illustrate an analytic framework employed in the study. In the study, sustainability learning progressed through the following phases: verbalized sustainability through the circulation of discourse, local visual representation, structured reflection, and the gradual expression of sustainability-related agency. This figure is meant to illustrate that the study does not claim a direct flow of global sustainability knowledge to the students' sustainability leadership. It articulates a context-bound, mediated flow of sustainability knowledge and its interpretation.

Glocal Sustainability Agency as Situated, Visual, and Discursive

Key to this study is the further development of the construct of glocal sustainability agency. The findings of this study suggest that agency is present when students connect local environmental issues with global sustainability discourse and see themselves as responsible actors in everyday life. However, this agency is not the same as formal leadership, and rather, is manifested through critical noticing, visual meaning-making, the use of English as a medium, small shifts in behavior, encouraging peers, and reflection.

This explanation outlines the characteristics of glocal sustainability agency in contrast to parallel constructs. This shows that students went beyond awareness of sustainability and environmental issues at the local level and that they interpreted and depicted such issues, not just reframing habits. Glocal sustainability agency shows that the students did not just employ global sustainability concepts and frameworks in the local context of Indonesia. Unlike formal sustainability leadership, the glocal sustainability agency demonstrates the students' emerging self-efficacy to influence local sustainability issues on a small scale.

Glocal is not simply a marketing term. It explains a phenomenon where global concepts of sustainability become relevant to local contexts. Using local sustainability issues, students collected and documented images and, through interpreted SHOWeD, expressed and verbalized them in connection to global sustainability frameworks and issues. The movement of sustainability agency is between the local and the global.

In the context of inter-Asia, the concept offers a counter model to the perception of passive Asian students, who are seen solely as the recipients of global information. The study indicates that students of Asian higher education, especially Indonesian students, have the potential to create local sustainability meaning if frameworks and tools that include local engagement and reflective voice are employed. However, the study does not aim to generalize to all of Asia. It aims to investigate how global educational frameworks of sustainability are localized in Indonesia, within the context of the broader Asia region.

Cross-Cultural Learning as Programme-Mediated Comparison

The results call for a thoughtful analysis of cross-cultural learning. The study was originally structured around cross-cultural and inter-Asian learning. However, most of the empirical data for the study were derived from just six students from Indonesia. Hence, the study should be careful not to claim that the study documents extensive inter-Asian exchange. What the data more strongly support is program-mediated local-global comparison.

The students came into contact with the concept of sustainability through the TAG-related virtual learning, the ESP activities, peer engagement, and the global sustainability discourse. This made it possible for them to draw a comparison between local sustainability-related issues and global environmental issues. Some students of the study expressed the view that waste, consumption, and climate responsibility are not only local issues, but also

global issues. However, the study lacks the evidence to claim the presence of extensive intercultural transformation in the various Asian countries.

The study, when properly framed, demonstrates the position of Indonesian students in the program-mediated learning environment in relation to global sustainability discourse. Cross-cultural learning, in this case, refers not to the extensive documented regional comparison, but to the mediated possibility of students thinking beyond the confines of their immediate environment.

This contributes to inter-Asia cultural studies, as it avoids using 'Asia' or 'cross-cultural' as ornamental expressions. The stronger claim the study makes is that a particular cohort of Indonesian students employed visual and verbal means to locally contextualize global sustainability discourse. The inter-Asia aspect is still important in a critical sense; however, the empirical claim must be kept moderate and substantiated.

English-Mediated Sustainability Narration and Discursive Agency

The data demonstrates that English, to an extent, mediated students' learning of sustainability. This occurred in an English for Specific Purposes (ESP) context, whereby students employed English to verbalise their photographs, outline the details of an environmental issue, and relate local contextual challenges to broader sustainability discourse. English thus served the dual purpose of a language-learning goal and a sustainability narration medium.

The data further substantiates the role of ESP in the study. English was not merely a technical language for further academic discourse. Through the medium of English, students were able to construct the meaning of an environment and make local concerns of a contextual nature available to a wider public. In doing so, students translated local scenes of plastic waste, public apathy, and environmental care into a lexicon that could be disseminated within the global sustainability discourse.

This, however, should not be idealized. Communication through the medium of English enables students to partake in wider communication. It can also create and restrict the bounds of what can be said. Local concerns might be expressed in a global sustainability discourse at the expense of their complexity. Furthermore, students might feel more able to verbalise the more visible issues of a concern than the more abstract, underlying, structural challenges. For this reason, English must be seen as a language that mediates, as opposed to a transparent conduit.

The idea of discursive agency is applicable in this instance. Students gained the ability to articulate and communicate environmental concerns. This agency was not simply about acting, but about the ability to speak in the context of sustainability discourse. The photovoice and the reflection of students, through the medium of English, enabled students to communicate local environmental concerns as significant issues, as opposed to private comments.

Rethinking Leadership and Identity Transformation

An important consequence of these revised findings is the adjustment of how we think about leadership and identity transformation. The data show that some students developed some degree of confidence, a sense of responsibility, and the ability to take the initiative. For example, students mentioned carrying reusable bottles to reduce plastic use, reminding peers to do so, and recognizing that small decisions are important. While these are significant results, they should be interpreted more accurately as the emergence of sustainability agency and less as the development of sustainability leadership.

Leadership more commonly refers to the idea of having a sustained influence, organized initiative, or a sense of responsibility that is more than self. The data we have at present do not indicate that level of leadership. Specifically, Student C's description of leading small actions indicates some degree of self-efficacy but does not imply the presence of sustained leadership. For this reason, the study should not assert that Photovoice produced sustainability leaders. A more defensible statement would be that Photovoice provided an avenue where people could develop everyday sustainability agency and possibly sustainability leadership.

In this regard, there should be similar restraint when it comes to transformation of self or identity. What students have written does indicate some changes in their self-awareness, sense of responsibility, and self-placement. Nevertheless, there is no evidence in the data of sustained changes to their identity. More accurately, the outcome of the research should be identified as reflective self-placement, where students came to realize the connection between their actions and environmental responsibility. This conclusion is certainly of value and significance to the research but is more conservative and defensible based on what the evidence supports.

This recalibration improves the manuscript. The study becomes more trustworthy since it does not overstate the impact of the noticing, narrating, and waste-reduction activities, as well as peer encouragement. The study's placement of agency beginning from commonplace activities and everyday visual reflection is its major contribution.

Theoretical Contribution

This study makes three theoretical contributions. First, it impacts critical sustainability education and incorporates the translation of discourse. This study suggests sustainability learning may also include the translation of discourse. Students interpreted sustainability messages through local environmental contexts, visual representation, English speech, and reflective conversations. They did not just passively receive SDG or ESD messages.

Second, the study contributes to photovoice scholarship and the idea that photographs can be participatory data and cultural texts. The study's findings regard students' visual choices and the framing, selection of objects, and relationships of foreground and background as meaningful. This enhances photovoice's methodological applicability within cultural studies as it demonstrates the ability of visual representation to articulate the cultural construction of sustainability.

Finally, the study contributes to inter-Asia cultural and educational studies and the idea of glocal sustainability agency. This idea provides some degree of answer to the question of how students in an Asian higher education setting may rationalize themselves as accountable global actors and connect global discourse to the local. It is a modest idea that purposely does not claim the concepts of full global citizenship or leadership but does articulate growing the capacity to self-position ethically and linguistically in everyday contexts.

Together, these contributions move the manuscript away from a generic ESD argument and toward a more culturally situated account of sustainability learning. The study shows that photovoice can make visible how students negotiate global educational discourse from a specific Asian location.

Practical Implications

Findings show opportunities for several higher education institutions, particularly those interested in the integration of sustainability, language learning, and internationalization. First, sustainability learning offers opportunities that begin with students' contextual realities. The sustainability discursive frameworks that operate in the global arena, such as the SDGs, are more readily engaged when students are prompted to identify issues that are relevant to their local context.

The second offers opportunities to progress from an abstract understanding to a context-reflective awareness using visual inquiry techniques such as photovoice. By encouraging students to document and interpret their local environmental dilemmas, educators are afforded an opportunity to help students identify issues that are frequently under-modalized.

Third, virtual mobility programs should not operate on the assumption that cross cultural contact in and of itself is transformative. Intentional reflective activities, comparative guided, and evidence-based dialogues are a requisite. One such example is the SHOWeD framework and its focus in helping students to move from the description and analysis to the action.

Fourth, both ESP and language-learning contexts incorporate sustainability themes in ways that extend beyond mere communication and promote critical thinking. Students can develop language skills by learning how to use English to discuss regional ecological issues and engage with global sustainability conversations. English teachers, however, should remain aware of the potential limitations of English as a global language, and recognize that some local meanings may be lost because they cannot be expressed using a global lexicon.

Fifth, the careful use of language to construct descriptions of the learning outcomes of students is important. Recognizing small changes in behavior and the presence of reflective awareness is important. It is important to resist the temptation to label these changes as expressions of leadership or changes in identity. Sustainability education offers the potential for the development of agency in students by recognizing its initial forms and providing opportunities for the extension and consolidation of the actions of students over time.

Overall, the potential of learning sustainability through photovoice is the integration of the elements of glocal sustainability agency in the local context, including verbalized, structured reflection and language-based activities in the context of programmatic comparison. It does not aim to achieve sustainability leaders. It allows students to understand, interpret, express, and position themselves and act within their contexts.

Conclusion

This study contributes a situated Indonesian account of how globally circulating sustainability discourse can be reworked through visual, linguistic, and reflective practice. Its contribution to inter-Asia scholarship does not lie in claiming a representative or comparative account of Asian higher education. Rather, it demonstrates the analytical value of treating an Indonesian educational location as a site from which global sustainability discourse can be interpreted and questioned, rather than merely a destination at which such discourse is implemented.

The findings indicate that students adapted sustainability vocabulary, rather than reproducing it verbatim. Using the photovoice method and SHOWeD for reflective practice, students identified locally relevant environmental issues and were able to articulate these issues by constructing the necessary visual components, then narrating

them in English and relating them to broader conceptual frameworks of sustainability. This process of the selective appropriation of meaning involved the localization of global issues using familiar objects and everyday habits, while the simplification of certain complex social and structural problems involved the framing of personal and collective narratives of responsibility. Sustainability translation, therefore, is a process that is socially and contextually mediated and relies on the appropriation of culturally situated knowledge.

The notion of glocal sustainability agency refers to the intersection of locally situated environmental experience, the translation of the local and global in discourse, the use of multiple modes of expression, and the assumption of a growing sense of responsibility. Discursive agency is one communicative dimension of this process. In the absence of a significant behavioral shift, the authors interpreted the daily actions of respondents as agency-related activities. The findings outline a conservative approach to agency that is applicable to the context of participants.

The study remains limited by its small, single-site sample, the programme-mediated rather than systematically comparative nature of its wider cultural encounters, and the absence of longitudinal evidence. These limitations preclude broad claims about inter-Asia experience or sustained behavioural change. They also point toward future research involving multiple Asian sites, direct comparative dialogue, longitudinal follow-up, and more extensive participant-generated visual datasets. Within these boundaries, the study shows how photovoice can make the translation of global sustainability discourse empirically visible and, in doing so, position Asian learners not simply as recipients of global educational agendas but as situated producers of sustainability meaning.

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Disclosure of Interest

The authors report there are no competing interests to declare.

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Data Availability Statement

The qualitative data generated and analysed during this study are not publicly available because they include participant-generated photographs, reflective narratives, peer-discussion records, and interview materials that may compromise participant confidentiality. De-identified excerpts may be made available from the corresponding author upon reasonable request, subject to the conditions of the approved research protocol (Ethics Approval No. 2026/OU/EAC/02/0135), applicable participant consent, and confidentiality requirements.

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References

- Abas, A., Awang, A., Rahman, A. H. A., & Sajid, S. (2026). A systematic literature review on the integration of indigenous knowledge in environmental education. *Environmental Education Research*. <https://doi.org/10.1080/13504622.2026.2628214>
- Affolderbach, J. (2022). Translating green economy concepts into practice: ideas pitches as learning tools for sustainability education. *Journal of Geography in Higher Education*, 46(1), 43–60. <https://doi.org/10.1080/03098265.2020.1849063>
- Ahmad, N., Toro-Troconis, M., Ibahrine, M., Armour, R., Tait, V., Reedy, K., Malevicius, R., Dale, V., Tasler, N., & Inzolia, Y. (2023). CoDesignS Education for Sustainable Development: A Framework for Embedding Education for Sustainable Development in Curriculum Design. *Sustainability* 2023, Vol. 15, Page 16460, 15(23), 16460. <https://doi.org/10.3390/SU152316460>

- Aprimadya, M. H. (2025). Rethinking situated agency: an interpretive framework to policy implementation. *Policy Studies*. <https://doi.org/10.1080/01442872.2025.2547859>
- Bamberger, A., & Morris, P. (2026). Internationalization, global higher education and postcolonial critiques. *Comparative Education*, 62(1), 18–43. <https://doi.org/10.1080/03050068.2025.2545705>
- Bandari, R., Moallemi, E. A., Kharrazi, A., Trogrlić, R. Š., & Bryan, B. A. (2024). Transdisciplinary approaches to local sustainability: aligning local governance and navigating spillovers with global action towards the Sustainable Development Goals. *Sustainability Science* 2024 19:4, 19(4), 1293–1312. <https://doi.org/10.1007/S11625-024-01494-6>
- Barracough, A. D., Reed, M. G., Coetzer, K., Price, M. F., Schultz, L., Moreira-Muñoz, A., & Måren, I. (2023). Global knowledge–action networks at the frontlines of sustainability: Insights from five decades of science for action in UNESCO's World Network of biosphere reserves. *People and Nature*, 5(5), 1430–1444. <https://doi.org/10.1002/PAN3.10515>;WEBSITE:WEBSITE:BESJOURNALS;WGROU:STRING:PUBLICATION
- Colombo, S. L., Chiarella, S. G., Lefrançois, C., Fradin, J., Raffone, A., & Simone, L. (2023). Why Knowing about Climate Change Is Not Enough to Change: A Perspective Paper on the Factors Explaining the Environmental Knowledge-Action Gap. *Sustainability* 2023, Vol. 15, Page 14859, 15(20), 14859. <https://doi.org/10.3390/SU152014859>
- Davies-Vollum, K. S., Ribchester, C., Danso-Wiredu, E. Y., & Raha, D. (2024). Virtual mobility to enhance intercultural competencies for a more sustainable future. *Innovations in Education and Teaching International*, 61(5), 833–847. <https://doi.org/10.1080/14703297.2023.2224770>
- Dias, I. M. A. V., Grande, A. J., Jardim, P. T. C., Machado, A. A. V., Soratto, J., da Rosa, M. I., Ceretta, L. B., Roever, L., Zourntos, X., & Harding, S. (2025). Indigenous university students' perceptions regarding nature, their daily lives and climate change: a photovoice study. *BMC Public Health* 2025 25:1, 25(1), 90-. <https://doi.org/10.1186/S12889-024-21111-6>
- Eide, E., Kunelius, R., Neill, O. ', & Pidcock, R. (2021). Voices of a generation the communicative power of youth activism. *Climatic Change* 2021 169:1, 169(1), 6-. <https://doi.org/10.1007/S10584-021-03211-Z>
- Farralles, M., Hoogeveen, D., Sloan Morgan, O., de Leeuw, S., & Parkes, M. (2022). Framing Futurities in Photovoice, Health, and Environment: How Power Is Reproduced and Challenged in Arts-Based Methods. *GeoHumanities*, 8(2), 415–434. <https://doi.org/10.1080/2373566X.2022.2080095>
- García- esparza, J. A., & Nikšić, M. (2024). Revealing the Community's Interpretation of Place: Integrated Digital Support to Embed Photovoice Into Placemaking Processes. *Urban Planning*, 9(0), 7074. <https://doi.org/10.17645/UP.7074>
- Guerrero, G., & Sjöström, J. (2025). Critical scientific and environmental literacies: a systematic and critical review. *Studies in Science Education*, 61(1), 41–87. <https://doi.org/10.1080/03057267.2024.2344988>
- Komarawan, Y., Febryanto, M., & Bakhti, K. Y. (2025). De-naturalizing the worldviews underlying representations of eco-awareness: a multimodal critical discourse analysis of Indonesian EFL textbooks. *Journal of World Languages*, 11(3), 481–516. <https://doi.org/10.1515/JWL-2024-0100/XML>
- Kumpoh, A. az Z. A., Sulaiman, E. A., & Le Ha, P. (2021). Insights into Bruneian students' transformative mobility experiences from their community outreach activities in Vietnam. *Research in Comparative and International Education*, 16(3), 228–251. <https://doi.org/10.1177/17454999211038770;CTYPE:STRING:JOURNAL>
- Leavesley, A., Trundle, A., & Oke, C. (2022). Cities and the SDGs: Realities and possibilities of local engagement in global frameworks. *Ambio* 2022 51:6, 51(6), 1416–1432. <https://doi.org/10.1007/S13280-022-01714-2>
- Macpherson, H., Bose, S., Church, A., Devkota, S., Khan, S., Pokhrel, P., Tripathi, S. K., & Mehta, L. (2026). Making visible off-grid toilet waste management: embodied sanitation infrastructure in Nepal. *Geoforum*, 175, 104709. <https://doi.org/10.1016/J.GEOFORUM.2026.104709>
- Obura, D. O., Katerere, Y., Mayet, M., Kaelo, D., Msweli, S., Mather, K., Harris, J., Louis, M., Kramer, R., Teferi, T., Samoilys, M., Lewis, L., Bennie, A., Kumah, F., Isaacs, M., & Nantongo, P. (2021). Integrate biodiversity targets from local to global levels. *Science*, 373(6556), 746–748. <https://doi.org/10.1126/SCIENCE.ABH2234;WEBSITE:WEBSITE:AAAS-SITE;JOURNAL:JOURNAL:SCIENCE;WGROU:STRING:PUBLICATION>
- Olkkonen, L., & Morsing, M. (2023). A Processual Model of CEO Activism: Activities, Frames, and Phases. *Business and Society*, 62(3), 646–694. <https://doi.org/10.1177/00076503221110184;WGROU:STRING:PUBLICATION>
- Padilla, M., Olah, S., Matiz, A., Soliván-Roig, J., Bravo González, J., Frau Canabal, J., Rodríguez Torrado, M. J., Rivera Méndez, E., Ganapati, N. E., Chandrasekhar, D., García, I., & Olshansky, R. B. (2024). Community

- health promotion and disaster recovery: a PhotoVoice project in Comerío, Puerto Rico. *Arts & Health*.
<https://doi.org/10.1080/17533015.2024.2445030>
- Pham Xuan, R., & Håkansson Lindqvist, M. (2025). Exploring Sustainable Development Goals and Curriculum Adoption: A Scoping Review from 2020–2025. *Societies* 2025, Vol. 15, Page 212, 15(8), 212.
<https://doi.org/10.3390/SOC15080212>
- Prandi, C., Nisi, V., Ribeiro, M., & Nunes, N. (2021). Sensing and making sense of tourism flows and urban data to foster sustainability awareness: a real-world experience. *Journal of Big Data* 2021 8:1, 8(1), 51-
<https://doi.org/10.1186/S40537-021-00442-W>
- Shahjahan, R. A., Estera, A. L., Surla, K. L., & Edwards, K. T. (2022). “Decolonizing” Curriculum and Pedagogy: A Comparative Review Across Disciplines and Global Higher Education Contexts. *Review of Educational Research*, 92(1), 73–113.
<https://doi.org/10.3102/00346543211042423>;REQUESTEDJOURNAL:JOURNAL:RERA;WEBSITE:WEBSIT
E:SAGE;WGROU:STRING:PUBLICATION
- Willett, J., Tamayo, A., & Rayo, A. (2021). Making the invisible visible: documenting slow violence through photovoice with youth in Nevada. *Journal of Community Practice*, 29(2), 112–132.
<https://doi.org/10.1080/10705422.2021.1938327>
- Witenstein, M. A., Baxter, A., Iyengar, R., Schaller, E. U., & Bah, S. (2025). A scoping study of education for sustainable development and global citizenship education in higher education. *PROSPECTS* 2025 55:1, 55(1), 165–183. <https://doi.org/10.1007/S11125-025-09739-7>
- Xu, H., & Chen, J. (2026). Development and validation of the Professional English Proficiency Perception (PEPP) scale. *English for Specific Purposes*, 83, 142–154. <https://doi.org/10.1016/J.ESP.2026.04.001>
- Yang, C., Ivanova, E., & Hufnagel, J. (2021). Using contemplative photography in transformative sustainability management education: Pedagogical applications in the United States, Russia, and Germany. *The International Journal of Management Education*, 19(3), 100568.
<https://doi.org/10.1016/J.IJME.2021.100568>