

Raising SDG 13 Awareness through Cross-Border Sustainability Pitching Video Competition Insights from Malaysia and Indonesia Accounting Students

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Abstract

Universities play a strategic role in supporting climate action under Sustainable Development Goal (SDG) No. 13, through innovative, student-centered learning approaches. This study examines the effectiveness of a pitching video competition jointly organized by University A (Malaysia) and Universitas B (Indonesia) in raising climate change awareness among undergraduate accounting students. A total of 78 students completed a structured questionnaire following the competition, which was held from October to December 2024. Results indicate that 90% of participants found the activity effective in enhancing their knowledge of climate action, advocating that creative, non-formal learning tools can meaningfully engage students in sustainability topics. The findings present practical implications for curriculum policymakers and international program coordinators that non-formal competitions can be integrated into accounting education to foster climate action literacy, teamwork, and cross-cultural collaboration. Such initiatives provide scalable and low-cost strategies for embedding sustainability in higher education and for preparing students to address climate action considerations in their future professional roles.

Keywords: Pitching video competition, Sustainable development goals no. 13, Climate action, Learning activities

1. Introduction

Climate change is a global challenge that affects all countries, communities and sectors. It can be evidently observed through long-term changes in temperature, weather patterns, rising sea levels and extreme weather, in which these issues have significantly impacted social, economic and environmental (NASA, 2024). In response, sustainability and climate action have become key parts of government policies around the world, including in Malaysia and Indonesia. These two countries have demonstrated a strong commitment to incorporating the United Nations' Sustainable Development Goals (SDGs) within their higher education frameworks which emphasize sustainability through academic curricula, research initiatives and student engagements (Ahmad, 2022). In the context of Malaysia, the Ministry of Education in Malaysia (MOHE) has taken major steps to embed sustainability practice in higher education system across academic disciplines through strategic policies such as the Malaysia Education Blueprint 2015-2025 (Higher Education) (National SDG Centre, 2025). The blueprint emphasizes the necessity of producing graduates who are not only knowledgeable in their respective fields but also equipped with the values and competencies required to address global challenges related to sustainable development such as climate issues aligning with SDG No 13. Similarly, Indonesia's Ministry of Education, Culture, Research, and Technology (Kemendikbud) has aligned its higher education system with sustainability-driven initiatives, fostering awareness and action on sustainability issues among university students (UNESCO, 2021).

The sustainability efforts toward SDG No. 13 which focuses on Climate Action have become an integral part of higher education institutions globally. Many universities have advanced sustainability efforts by embedding environmental, social, and governance (ESG) principles into both their strategic planning and educational programs. These efforts include sustainability-oriented academic programs, eco-friendly campus operations, research initiatives and community engagement projects (Menon & Suresh, 2020). Additionally, internationalization agenda has also been actively pursued by higher education institutions to promote the SDG 13. Cross-border collaborations, student exchange programs and international competitions have provided platforms for students and academics from diverse cultural and national backgrounds to share ideas and develop solutions for global climate issues. For example, the "Global University Climate Forum" in 2023 brought together students from different countries to collaborate in developing climate solutions (International Sustainable Campus Network, 2023). Integrating internationalization with the sustainability agenda allows universities to teach climate action and provide meaningful international experiences that enhances students learning and commitment to addressing climate change.

In Western countries such as those in Europe and North America, universities have initiated various sustainability programs including the establishment of green campuses and climate change research centers, as well as adoption of renewable energy (Green Education Organization, 2024). Similarly, Asian universities are also actively integrating sustainability into their higher education curricula to address global climate challenges. In Japan, University of Tokyo offers interdisciplinary programs such as the Graduate Program in Sustainability Science - Global Leadership Initiative (GPSS-GLI) focusing on renewable energy, waste management, policy and ethics (University of Tokyo, 2024). As for the Korea Institute of Energy Research (KIER), they collaborate with partners to advance research in carbon-neutral technologies like solar energy and hydrogen, thereby directly strengthening sustainability efforts in the region (Herh, 2024). The similar active sustainability efforts can also be evidently in Malaysia. For example, University Teknologi MARA (UiTM), a public university in Malaysia has actively supported SDG No. 13 by embedding environmental sustainability into its education, research, operations, and community engagement. Through entities such as UiTM Green Centre and the Sustainable Campus Committee, the university has implemented initiatives including energy management policies, rainwater harvesting, waste recycling programs, carbon footprint monitoring, the Bring-Your-Own-Container (BYOC) campaign and smart agriculture projects (Sofwan et al., 2023).

Despite the active sustainability initiatives led by many universities including those Malaysia, there is limited research on how informal, student-led activities specifically competitions help in raising awareness and promoting action on sustainability (Lozano et al., 2021). Prior studies in sustainability education have largely focused formal curricula, eco-friendly campus management and programs managed by faculty, but little attention on experiential and competitive learning approaches for climate action (Hosen et al., 2022; Lozano et al., 2021). In addition, earlier research in different contexts supports the value of competitions. For example, eco-innovation competitions in Greece encourage creative thinking and interdisciplinary collaboration, particularly in urban and industrial sustainability

(Papavasileiou et al., 2025). Similarly, a water-saving video competition on TikTok in Malaysia effectively increased students' awareness and motivated them to act on water conservation and other climate-related behaviors (Mou Leong et al., 2025). These findings support the idea that video-based competitions can serve as effective tools to promote SDG 13 awareness; however existing studies have not examined their impact on accounting students or within cross-border educational settings. This creates a significant research gap as competitions can build creativity, teamwork and real problem-solving skills that are useful in future jobs (Wals & Benavot, 2017).

Therefore, the motivation of this study is driven by two main issues. First, accounting students typically engage with conventional curricula focusing on financial reporting, auditing and taxation with limited exposure to sustainability concepts. Nevertheless, the potential role of students in advancing sustainability particularly through innovative educational approaches such as competitions has gained increasing attention. Second, the increasing recognition of digital platforms and creative media such as video pitching as powerful tools for engaging students in sustainability (OECD, 2023). Unlike previous studies that examined sustainability education in general or focused on science and engineering students, this research focuses on a new area by investigating how an international video competition can enhance climate action awareness among accounting students in Malaysia and Indonesia.

This study contributes to the literature on sustainability education and student engagement in climate action by concentrating on an innovative pedagogical approach, a pitching video competition as a tool to promote Sustainable Development Goal (SDG) No. 13 (Climate Action). The originality of this research lies in its combination of (i) non-formal learning methods (video pitching), (ii) a cross-border collaborative setting and (iii) a profession-oriented target group (accounting students) which has not been sufficiently explored in prior studies. By addressing these gaps, this study provides insights into how informal, technology-driven, and international co-curricular activities can complement traditional curricula and strengthen students' commitment to sustainability goals.

2. Literature Review

2.1 SDG Awareness in Higher Education

Higher Education Institutions (HEIs) are vital to advancing the United Nations Sustainable Development Goals (SDGs) by embedding sustainability knowledge into academic programs and supporting transformative learning (Joseph et al., 2022). Past studies reported that incorporating SDG topics interested in syllabuses could improve students' perception of worldwide challenges and create problem-solving skills. For example, Kioupi and Voulvoulis (2020) informed that integrating SDG 13 (Climate Action) aided students better appreciate ecological problems and providing solutions. Likewise, Blasco et al. (2021) observed that higher education institutions act as sustainability hubs, including student commitment in SDG-related activities increasing their dedication to sustainable practices.

Nevertheless, student awareness and commitment are varying. Leal Filho et al. (2023)

discovered significant differences in SDG knowledge within disciplines, qualifications, and age groups, with education and commerce students frequently indicating better understanding. However, involvement in SDG-related events and workshops remains low. Avelar et al. (2023) emphasized that incorporating SDG 8 (Decent Work and Economic Growth) in interdisciplinary teaching encourages a comprehensive comprehension of sustainability, however such approaches do not involve all students, similarly, indicating a disciplinary bias.

National strategies, such as India's National Education Policy 2020, have associated higher education with sustainability objectives through supporting resource efficiency and research productivity (Avelar et al., 2023). Despite this, several academic programs still lack interactive and experiential elements that promote active participation (Leal Filho et al., 2021). Outreach efforts continue to be imbalanced and the gap between awareness and continued action persists. Whilst past studies proved the advantages of incorporating SDGs into universities, there is inadequate understanding of how to constantly transform awareness into effective participation across different academic groups and student groups.

2.2 SDG Initiatives in Higher Education

Higher Education Institutions (HEIs) have established extensive programs to support the SDGs, comprising academic program restructure, sustainability-focused extracurricular activities, and community engagement projects. UNESCO (2017) and Wiek et al. (2011) focus that effective integration be determined by institutional commitment, strong curriculum design, and cooperation with stakeholders. Several higher education institutions have established SDG-based courses, interdisciplinary programs, and community partnerships to tackle local sustainability challenges (Leal Filho et al., 2021; Joseph et al., 2022).

Innovative instances include living labs, green campus operations, renewable energy adoption, and sustainable transportation systems (Blasco et al., 2021; Avelar et al., 2023). Student-led projects such as recycling programs, climate action campaigns, and sustainability innovation challenges as well take the part of promoting SDG engagement. Networks such as the Sustainable Development Solutions Network (SDSN) and Higher Education Sustainability Initiative (HESI) assist universities communicate best practices and work together on policy development.

Notwithstanding these innovative instances, implementation remains imbalanced. Various higher education institutions encounter funding constraints, unsatisfactory faculty training, and low levels of student participation (Avelar et al., 2023).

2.3 Competition-Based Learning (CBL)

Competition-Based Learning (CBL) combines collaborative problem-solving to increase motivation, engagement, and skill development (Huang & Chang, 2011; Issa et al., 2014). Research across disciplines has exhibited its benefits: in fashion design, CBL enhanced student motivation and presented real-world experience (Chan et al., 2020); in artificial intelligence, gamified competition understanding (Hasselmann & Lurkin, 2023); and in machine learning, competitions developed strong IT and problem-solving skills (Zhang et al., 2022).

In sustainability education, CBL could be a strong tool for encouraging innovation. Competitions such as the “3 Minutes SDG Video Competition” connect students greatly with SDG-related issues at the same time developing critical thinking, communication, and problem-solving skills (Joseph et al., 2022; Culha, 2021). These activities assist students to use their knowledge to solve real-world problems in an active learning environment.

Nevertheless, CBL is not without challenges. While this approach could improve engagement, a few students could encounter tension or reduced collaboration. Current research seldom compares different competition formats or investigates which circumstances present CBL most effective in promoting sustainability engagement and long-term participation in SDG-related activities.

2.4 Pitching Video-Based Learning and Its Effectiveness

Video-based learning blends audio, visual, and text elements to form engaging and manageable learning experiences (Brame, 2016; Noetel et al., 2021). This has been proven to improve student concentration, understanding, and retention, specifically when videos are interactive or used in short, concentrated sections (Galatsopoulou et al., 2022). These approaches are useful in both formal courses and extracurricular activities, including SDG-themed competitions (Joseph et al., 2022).

Pitching, the succinct demonstration of ideas, develops communication skills, confidence, and critical thinking (Chan et al., 2020; Culha, 2021). While mixed with SDG projects, pitching allows students to offer useful resolutions and welcome positive advice (Leal Filho et al., 2023). The mixture of pitching and video-based learning presents openings for creativity, technological skill-building, and broader audience engagement.

Notwithstanding encouraging results, existing studies lack comprehensive comparisons between academic programs and extracurricular efforts, and not much is acknowledged about how different formats influence outcomes. The evidence base is still uneven, with most studies concentrating on a particular competition or small-scale initiatives. While pitching and video-based learning have indicated potential for engaging students with sustainability topics, there is lack of research on in what way dissimilar delivery formats influence involvement, skills development, and long-term engagement with SDGs.

2.5 Overall Synthesis and Literature Gap

According to past studies, HEIs are progressively incorporating the SDGs into their actions and instruction, even though there is an imbalanced shift from awareness to continuous engagement. Even though their combined use in focused sustainability education is still understudied, innovative pedagogies such as CBL, video-based learning, and pitching have shown potential in upholding meaningful learning and participation. In addition, the comparability and generalizability of past studies’ findings are impeded by methodological inconsistencies and a deficiency of disciplinary diversity.

Particularly, there is a shortage of combined research on the strategic design of competition-based, video-driven, and pitching-oriented pedagogies to bridge behavioral

devotion and SDG knowledge, specifically in accounting. By investigating how well a pitching video competition advances SDG 13 among undergraduate accounting students in Malaysia and Indonesia, this study fills that knowledge gap. By doing so, this presents additional proof of the capability of engaged, competitive interventions to encourage important sustainability involvement in higher education institutions.

Recently, non-formal educational strategies such as workshops, competitions, and project-based learning have achieved power as strong tools to support formal sustainability curricula (UNESCO, 2020). These approaches frequently promote greater student autonomy, creativity, and engagement compared to traditional classroom methods, particularly when tackling complicated, value-driven issues such as climate change (Sterling, 2016). Embedding these projects within an international collaboration framework not merely open students to different outlooks and cultural perspectives but also imitates the transboundary nature of global sustainability challenges. Collaborative, cross-border programs could therefore improve students' sense of global citizenship and shared responsibility, making sustainability learning more relevant, and personally meaningful (Leal Filho et al., 2018). Despite increasing support for such approaches, limited empirical research exists on their impact in accounting. This study seeks to address that gap.

This study employed a quantitative cross-sectional survey design to evaluate student perceptions of the SDG No. 13 Pitching Video Competition as an informal learning strategy. The study involved undergraduate accounting students from two universities involved in the Inbound-Outbound Mobility Program conducted in October 2024. This program forms part of University A's annual global engagement and sustainability promotion performance indicators.

3. Methodology

This study employed a quantitative cross-sectional survey design to evaluate student perceptions of the SDG No. 13 Pitching Video Competition as an informal learning strategy. The study involved undergraduate accounting students from two universities involved in the Inbound-Outbound Mobility Program conducted in October 2024. This program forms part of University A's annual global engagement and sustainability promotion performance indicators.

3.1 Participants

The population comprised all 113 students who participated in the program. A total of 78 completed responses were returned, resulting in a usable response rate of 69%. Participants were selected using total population sampling as the entire group of student participants was accessible and relevant to the research context (Etikan, Musa, & Alkassim, 2016).

3.2 Instrument Development

The structured questionnaire was adapted from validated instruments used in previous sustainability education studies (Joseph & Rahmat, 2018; Joseph et al., 2022) and consisted of two sections:

Section A: Demographic data (e.g., gender, institution, year of study).

Section B: 10 items measuring perceived effectiveness of the video pitching competition in promoting awareness of SDG No. 13, rated on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). In this study, mean scores of 4.00 and above are considered to indicate a high level of agreement and perceived effectiveness, consistent with the interpretive benchmarks used in prior educational and social science research.

3.3 Data Collection Procedure

Data was collected via an online questionnaire (a platform chosen for its accessibility and ease of use across both participating institutions) distributed to students immediately following the competition. Participation was voluntary and all data was handled confidentially. Responses were anonymized to protect participants' privacy.

3.4 Data Analysis

Descriptive statistics (mean, standard deviation, frequency analysis) were used to assess central tendencies in perceived effectiveness, conducted using SPSS Version 29.0. Instrument reliability was confirmed through Cronbach's alpha.

Prior to the distribution of the questionnaire, the following preparatory steps were undertaken:

- Briefing session on the preparation of video by the Coordinator during the Inbound-Outbound Mobility Program was conducted in October 2024 via the Zoom platform.
- Students were requested to watch a sample YouTube video:
- <https://www.youtube.com/watch?v=8ajnx7KiWCA>. The purpose is to provide ideas for students on how they (as members of society) could help solve environmental issues.
- Submission of videos to the Organizing Committee was due on 31 December 2024
- The judging process was conducted from January to April 2025

4. Results

4.1 Demographic Profile

Table 1. Demographic Profile

Profile	Items	Frequency	Percentage (%)
Gender	Male	30	38.50
	Female	48	61.50
Age	18 - 19	23	29.49
	20 - 24	52	66.67
	25 - 29	2	2.56
	30 - 39	1	1.28
Higher Learning Institution	University A, Sarawak, Malaysia	40	51.30
	University B, Surakarta, Indonesia	38	48.70
Faculty	Faculty of Accountancy	40	51.30
	Faculty of Economics and Business	38	48.70
Academic year of study	Year 1	10	12.82
	Year 2	16	20.51
	Year 3	30	38.46
	Year 4	20	25.64
	Year 5	2	2.56
The number of hours taken to prepare the SDG No. 13 Pitching Video	1-10 hours	13	16.67
	11-20 hours	4	5.13
	21-30 hours	15	19.23
	More than 30 hours	46	58.97

Table 1 shows the demographic profile of 78 participants with female representing the majority (61.5%) and only 38.5% are male participants. The gender distribution indicates a greater representation of female respondents, which may suggest gender-based preferences in involvement with the project. In the context of age distribution, majority of the participants (66.67%) are in the 20-24 age group, followed by 29.49% in the 15-19 age range. Participation from individuals over the age of 24 was minimal, with only 2.56% aged 25-29 and 1.28% aged 30-39. This indicates that the study mainly involved young participants, consistent with the target population of university students. In relation to institutional and faculty representation, participants were equally divided between University A, Sarawak, Malaysia (51.3%) and University B, Surakarta, Indonesia (48.7%). With regard to the faculty affiliation, 51.3% of participants were from Faculty of Accountancy, whereas 48.7% participants were from the Faculty of Economics and Business. The balanced distribution suggests that both areas of study demonstrated a comparable level of interest in the project.

The distribution of participants by academic year shows that most of the participants are in Year 3, with 30 respondents (38.46%), followed by Year 4 students with 20 respondents (25.64%). This indicates that most participants were nearing the completion of their studies. Besides, there are 16 participants from Year 2 students (20.51%), while Year 1 students denoted a smaller group, with 10 participants (12.82%). The smallest representations are from Year 5, with only 2 participations (2.56%). The limited participation from final-year students can be attributed to their academic priorities, for instance final year project, thesis

work or internship. The time allocated to preparation of SDG No. 13 Pitching Video Competition among participants varied significantly. Majority of the respondents (58.97%) took more than 30 hours to prepare the videos, suggesting a substantial investment of effort and time. This may reflect the importance placed on meeting the expected quality standards of the project. Conversely, a smaller proportion of respondents (16.67%) spent between 1 to 10 hours and only 5.13% reported spending between 11 to 20 hours, while 19.23% spent between 21 to 30 hours, demonstrating a moderate level of time investment.

Table 2. Factors Influencing the Respondents' Decision to participate in the SDG No. 13 Pitching Video Competition

No	Items	Percentage (%)					
		Most Influential	Highly Influential	Moderately Influential	Somewhat Influential	Minimal Influential	Least Influential
1	Participation Certificate	28.21	17.95	15.38	23.08	3.85	11.54
2	Friend	6.41	16.67	16.67	26.92	20.51	12.82
3	Family	1.28	10.26	3.85	16.67	21.79	46.15
4	Myself	35.90	15.38	23.08	8.97	12.82	3.85
5	Lecturer	25.64	20.51	28.21	11.54	7.69	6.41
6	Gift	2.56	19.23	12.82	12.82	33.33	19.23

Table 2 indicates a descriptive analysis of factors influencing the respondents' decision to participate in SDG No. 13 Pitching Video Competition. The main factor motivating participation was personal motivation, with 35.90% of respondents stating that they participate in the video competition mainly for themselves. The next most influential factor was participation certificate, mentioned by 28.21% of respondents. The third most significant factor was the role of lecturer, with 25.64% of respondents indicate that support from lecturers influenced their decision. This finding suggests that intrinsic motivation, official recognition, and professional support are the crucial drivers of video competition participation.

46.15% of respondents stated that family does not influence their decision to join the video competition. Gifts appeared to have minimal influence, as 19.23% of respondents consider it as determining factor. Finally, the presence of a friend is the least significant factor, with 12.82% of respondents citing it as a motivation for their participation. This suggests that most of the respondents were encouraged by personal goals instead of peer influence.

4.2 Reliability Analysis

Table 3. Reliability Analysis

Element	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
Effectiveness of SDG No. 13 Video Pitching Competition in Promoting the SDGs Agenda.	.952	.953	13
Technical and Soft Skills demonstrated in the SDG No. 13 Video Pitching Competition	.943	.943	10
Preparation of SDG No. 13 Video Pitching Competition	.941	.942	7

Table 3 shows a reliability analysis conducted using Cronbach's alpha to analyse internal consistency of the three elements evaluated in the questionnaire. The results demonstrated high reliability throughout all elements. Effectiveness of SDG No. 13 Video Pitching Competition, containing 13 items, recorded a Cronbach's alpha of 0.952 and 0.953 based on standardized items. Technical and Soft Skills demonstrated in the SDG No. 13 Video Pitching Competition, with 10 items, displayed a Cronbach's alpha of 0.943, while preparation of SDG No. 13 Video Pitching Competition, containing 7 items, generated an alpha of 0.941 and 0.942 for standardized items. The results indicate excellent internal reliability and consistency, as values beyond 0.90 are generally considered to reflect excellent reliability (Taber, 2018). The reliably high alpha scores across all three components suggest that the items were internally consistent and effectively measured the same underlying construct.

4.3 Effectiveness of SDG No.13 Video Pitching Competition in Promoting the SDGs Agenda

Table 4. Effectiveness of SDG No.13 Video Pitching Competition in Promoting the SDGs Agenda

No	Items	Percentage (%)				
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The SDG No. 13 Pitching Video Competition enhances SDG knowledge in higher education institutions.	0.00	2.56	5.13	35.90	56.41
2	The SDG No. 13 Pitching Video Competition enhances the application of SDGs in higher education institutions.	0.00	2.56	5.13	50.00	42.31
3	The SDG No. 13 Pitching Video Competition provides students with an experiential learning platform that enables them to discuss and present ideas effectively.	2.35	0.00	5.13	50.00	42.31
4	The SDG No. 13 Pitching Video Competition encompasses a variety of educational activities, from the initial stage to the phases of explanation, construction, and transition of holistic learning experiences.	0.00	1.28	12.82	50.00	35.90
5	The SDG No. 13 Pitching Video Competition develops students' sustainability management competencies and prepares them for future work environments.	0.00	3.85	7.69	44.87	43.59
6	The SDG No. 13 Pitching Video Competition provides a platform for students to "experience" what it feels like to play a role in contributing to the SDG agenda.	0.00	0.00	8.97	46.15	44.87
7	The SDG No. 13 Pitching Video Competition enables increased interaction between students and faculty members.	1.28	3.85	14.10	42.31	38.46
8	The SDG No. 13 Pitching Video Competition is relevant and beneficial to students.	0.00	2.56	5.13	43.59	48.72
9	The SDG No. 13 Pitching Video Competition adds value to the learning process of students who are interested in pursuing career opportunities related to the SDGs.	0.00	2.56	6.41	48.72	42.31
10	The SDG No. 13 Pitching Video Competition is a perfect example of an informal learning approach to education for sustainable development.	0.00	2.56	10.26	41.03	46.15
11	The SDG No. 13 Pitching Video Competition provides an enjoyable experience.	0.00	1.28	6.41	51.28	41.03
12	The SDG No. 13 Pitching Video Competition strengthens students' resumes - employers seek students with competitive "real-world" experience.	0.00	3.85	7.69	43.59	44.87
13	The SDG No. 13 Pitching Video Competition should continue to be held in the future.	0.00	1.28	7.69	42.31	48.72

Table 4 shows a descriptive evaluation of the effectiveness of the SDG No. 13 Pitching Video Competition in promoting the SDGs agenda. The result revealed that more than 90% of the

respondents agreed that the SDG No. 13 Video Pitching Competition:

- 1) Enhances SDG knowledge in higher education institutions. (92.31%)
- 2) Enhances the application of SDGs in higher education institutions. (92.31%)
- 3) Provides students with an experiential learning platform that enables them to discuss and present ideas effectively. (92.31%)
- 4) Provides a platform for students to "experience" what it feels like to play a role in contributing to the SDG agenda. (91.03%)
- 5) Relevant and beneficial to students. (92.31%)
- 6) Adds value to the learning process of students who are interested in pursuing career opportunities related to the SDGs. (91.03%)
- 7) Provides an enjoyable experience. (92.31%)
- 8) Should continue to be held in the future. (91.03%)

A high percentage of students (92.31%) agreed they can enhance SDG knowledge and application in higher education institutions through this video competition. The result highlights the importance of higher institutions as centres for sustainability by encouraging student participation in SDG-driven programs, as well as enhancing their understanding and engagement with sustainable activities (Blasco et al., 2021; Noetel et al., 2021). Culha (2021) also asserted that students possess strong awareness regarding global sustainability issues and obtain real-world skills in handling them when participating in SDGs-related competitions. To date, various academic institutions have included courses related with SDGs into their curricular framework together with multidisciplinary programs that highlight environmental and sustainability challenges (Avelar et al., 2023). Besides, a significant portion of students (92.31%) also agreed that the competition was a beneficial and enjoyable experience, as it provided an experiential-learning platform for them to express ideas. This finding is in line with previous studies which found that video-based learning enhances peer collaboration, stimulates motivation, and creates positive learning experiences for students (Galatsopoulou et al., 2022; Huang & Chang, 2011; Chan et al., 2020). Hasselmann and Lurkin (2023) also recommended that competitive learning approach facilitates student comprehension of challenging subjects and directly improves the learners' overall learning experience.

The remaining 10% of the respondents expressed their disagreement and mixed opinions on the effectiveness of the SDG No. 13 Pitching Video Competition as informal learning methods in supporting the SDGs agenda. The finding revealed that there was a statement that most respondents disagreed (5.13%) and remained neutral (14.10%), which is the SDG No. 13 Pitching Video Competition enables increased interaction between students and faculty members. This finding suggests that respondents did not perceive the video pitching competition as a platform that promotes engagement with faculty, including instructors, academic advisors, research supervisors, and professors.

4.4 Technical and Soft Skills demonstrated in the SDG No. 13 Pitching Video Competition

Table 5. Technical and Soft Skills demonstrated in the SDG No. 13 Pitching Video Competition

No	Items	Percentage (%)				
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The SDG No. 13 Pitching Video Competition enhances my presentation skills.	1.28	1.28	5.13	52.56	39.74
2	The SDG No. 13 Pitching Video Competition improves my public speaking skills.	0.00	3.85	10.26	50.00	35.90
3	The SDG No. 13 Pitching Video Competition enhances my management competencies.	0.00	1.28	11.54	56.14	30.77
4	The SDG No. 13 Pitching Video Competition improves my time management skills.	0.00	1.28	8.97	46.15	43.59
5	The SDG No. 13 Pitching Video Competition enables me to acquire problem-solving and critical thinking skills.	0.00	2.56	5.13	50.00	42.31
6	The SDG No. 13 Pitching Video Competition boosts my confidence level.	0.00	2.56	10.26	53.85	33.33
7	The SDG No. 13 Pitching Video Competition enhances my self-awareness.	1.28	1.28	6.41	52.56	38.46
8	The SDG No. 13 Pitching Video Competition increases my knowledge of the SDG agenda at the university.	0.00	2.56	3.85	52.56	41.03
9	The SDG No. 13 Pitching Video Competition allows me to utilize my creative skills.	0.00	1.28	7.69	46.15	44.87
10	The SDG No. 13 Pitching Video Competition encourages out-of-the-box thinking.	0.00	2.56	8.97	47.44	41.03

Based on Table 5, more than 90% of the respondents agreed that the SDG No. 13 Pitching Video Competition:

- 1) Enhance presentation skills. (92.30%)
- 2) Enables students to acquire problem-solving and critical thinking skills. (92.31%)
- 3) Enhances self-awareness ability. (91.02%)
- 4) Enhance knowledge of the SDG agenda at the university. (93.59%)
- 5) Enables the application of creative skills. (91.03%)

Conversely, more than 10% of the respondents disagreed and demonstrated mixed feelings that the SDG No. 13 Pitching Video Competition:

- 1) Improves public speaking skills. (14.11%)
- 2) Enhances management competencies. (12.82%)
- 3) Improves time management skills. (10.25%)
- 4) Enhances confidence level. (12.82%)

5) Encourages out-of-the-box thinking. (11.54%)

Most of the respondents agreed that the SDG No. 13 Pitching Video Competition improves their knowledge on the SDG agenda at the university (93.59%), elevates problem-solving skills (92.31%), refines critical thinking skills, and strengthens presentation skills (92.30%). This finding is consistent with Burney et al. (2017), who stressed that adoption of competition-based learning (CBL) within sustainability education stimulates interpersonal skills such as problem-solving skill, teamwork, and leadership competencies that directly enhance students' capacity for creativity and adaptability. The findings also indicate that the involvement in competition associated with SDGs promote meaningful engagement with global sustainability issues and facilitates the acquisition of practical skills needed to address them (Culha, 2021). The competition also plays critical part in bolstering students' critical thinking skills and raising their awareness of sustainability problems (Joseph et al., 2022).

Based on Table 5, a small number of respondents expressed disagreement regarding the video competition impact on specific skill areas. 14.11% of respondents expressed doubt that the competition improves their public speaking skills, while 12.82% questioned the competition effectiveness in developing both confidence levels and management competencies. Next, 10.25% stated that their time management skills were not significantly enhanced, and 11.54% of the respondents were uncertain about the video competition's role in promoting out-of-the-box thinking. The varied responses suggest that despite the competition have benefited numerous students, its effectiveness differed among participants. This highlights the importance of designing differentiated and inclusive learning practices that address various student skill levels and needs.

4.5 Preparation of SDG No. 13 Video Pitching Competition

Table 6. Preparation of SDG No. 13 Video Pitching Competition

No	Items	Percentage (%)				
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Making the SDG No. 13 Pitching Video is fun.	0.00	2.56	12.82	42.31	42.31
2	Making the SDG No. 13 Pitching Video is engaging in terms of emotional and social achievement.	0.00	1.28	10.26	43.59	44.87
3	I have learned a lot from producing the SDG No. 13 Pitching Video in terms of integrating concepts, ideas, words, visuals, and images.	0.00	1.28	10.26	43.59	44.87
4	The SDG No. 13 Pitching Video I created will be useful as learning material for future reference.	0.00	2.56	10.26	46.15	41.03
5	Making the SDG No. 13 Pitching Video gives me the opportunity to manage my learning.	0.00	2.56	11.54	48.72	37.18
6	The SDG No. 13 Pitching Video opens the door to enhancing access to practical demonstrations.	0.00	2.56	12.82	53.85	30.77
7	Video is the most effective way to communicate ideas about the SDGs.	0.00	2.56	8.97	48.72	39.74

Table 6 shows that more than 85% of the respondents agreed that the preparation of SDG No. 13 Pitching Video:

- 1) Is fun. (84.62%)
- 2) Is engaging in terms of emotional and social achievement. (89.74%)
- 3) Is valuable as they learn about integrating concepts, ideas, words, visuals, and images. (88.46%)
- 4) Is useful as learning material for future reference. (87.18%)
- 5) Provides an opportunity for students to manage their learning. (85.90%)
- 6) Provides enhanced access to practical demonstrations. (84.62%)
- 7) Is the most effective way to communicate ideas about the SDGs. (88.46%)

Majority of the respondents (89.74%) acknowledged that the preparation of SDG No. 13 Pitching Video Competition is an emotionally and socially engaging process, while 84.62% described it as enjoyable. This corresponds with a study by Brame (2016) who demonstrated that the development of educational videos enhances learner engagement, encourages active learning, and enhances student retention as videos promote interactivity in educational content. Additionally, 88.46% of the respondents believed that the SDG No. 13 Pitching Video Competition facilitates them to connect concepts, ideas, words, visuals, and images, specifying its value in fostering integrated learning. The result is consistent with Brame (2016), whereby the study found that learning video programs assist students obtain information easily by combining visual elements that convey main concepts through narrative approaches. Similarly, 88.46% of the respondents also agreed that the video competition is an effective platform for conveying ideas associated with SDGs, highlighting its relevance in inclusive education settings. This is in line with Noetel et al. (2021) who observed that video learning approaches increase students' understanding and attention, particularly when the students are involved in producing the videos' content instead of merely watching pre-prepared resources.

Table 6 also shows that 87.18% of the respondents viewed video preparation as useful for future reference, and 85.90% agreed that video preparation provides opportunities for students to control their own learning. This agrees with Galatsopoulou et al. (2022) and Brame (2016) who indicated SDG No. 13 Pitching Video Competition activities enable student technical skills and engage in collaborative learning through dynamic learning experience which develops their communication and storytelling abilities, digital presentation skills, critical thinking, and creativity for use in future professional settings. Lastly, 84.62% recognized that the preparation of video competition improved their exposure to real-world applications. This is supported by Zhang et al. (2022) who found that CBL connects conceptual knowledge and practical application, giving students the opportunity to gain insight into complicated topics more proficiently. These results suggest that CBL can be a greatly attractive and versatile education tool, contributing not only to the development of thinking skills but also to social-emotional elements of the learning journey. It underlines the capability of CBL in sustainability development education as pleasant and impactful way for expertise development and information delivery.

On the other hand, approximately 10% to 15% of respondents expressed disagreement and mixed feelings on whether preparation of SDG No. 13 Pitching Video Competition is socially meaningful or enjoyable, and some questioned the effectiveness of the competition as an

instrument for learning and skill development. These mixed feeling reactions suggest that even CBL can be highly effective for majority of the respondents, it may not equally support all learning styles or individual needs. Thus, this highlights the significance of implementing various pedagogical methods that accommodate diverse learning styles and ensure sufficient support systems are available to optimize involvement and better learning outcomes.

4.6 Descriptive Analysis

Table 1. Descriptive Analysis

Element	Mean	Standard Deviation	Rank
Effectiveness of the SDG No. 13 Pitching Video Competition in Promoting the SDGs Agenda.	4.3116	0.0827	1
Technical and Soft Skills demonstrated in the SDG No. 13 Pitching Video Competition.	4.2641	0.0671	2
Preparation of SDG No. 13 Pitching Video Competition.	4.2308	0.0597	3

An additional analysis was conducted to evaluate the main aspects of SDG No. 13 Pitching Video Competition, which underlines the respondents' perceptions of the video competition effectiveness, skill enhancement, and preparation process based on mean, standard deviations, and ranking. The effectiveness of the SDG No. 13 Pitching Video Competition reported the highest mean score of 4.3116 with standard deviation of 0.0827, ranking first among the three elements measured. This suggests that respondents considered the video competition initiative as highly impactful. The integration of SDG themes into educational video competition evidently improves awareness and effectively encourages personal commitment and environmental consciousness in SDG issues (Morris et al., 2021).

The development of technical and soft skills indicated a slightly lower mean of 4.2641 and a lower standard deviation of 0.0671, showing a consistent positive response. This suggests that respondents valued the development of skills such as problem-solving skills, creativity ability, critical thinking, and presentation skill. These findings align with previous study specifying that integrating technical tools with innovative outputs into sustainability education promotes problem-solving abilities and critical thinking (Wiek et al., 2011). The preparation process for the video competition ranked third, with a reported mean of 4.2308 and standard deviation of 0.0597, indicating that respondents generally had a consistently positive experience during the structuring and preparation stages of the video competition. In summary, the results show that respondents perceived the SDG No. 13 Pitching Video Competition as an engaging and beneficial educational experience. The small range of standard deviations across all elements suggests minimal variation in response and strong agreement among respondents that such competition is an effective learning activity.

5. Discussions

The SDG No. 13 Video Pitching Competition has shown to be an influential means in higher education for improving students' understanding of climate action whilst providing a meaningful and enjoyable experience. The requirement of competition transforms abstract sustainability theories into practical applications by conducting research, analyze, and

innovatively present solutions. This process not only enhances awareness of SDG 13 but also promotes transferable skills such as critical thinking, teamwork, and communication, causing the competition to be valuable beyond its immediate focus. Hence, the evidence proves that the competition boosts together cognitive (knowledge) and effective (motivation and enjoyment) outcomes. The enjoyment element is notably significant because positive feelings increase student involvement and lifelong learning. Therefore, the competition is not merely informative but also transformative, converting SDG awareness into a dynamic and enriching process.

The finding also particularly significant considering the continuing discussion on the future of the accounting profession. The need for accountants is no longer limited to compliance and financial reporting, rather there is a rising recognition of their function as main providers to sustainable practices and environmental stewardship. In the context of SDG No. 13 (Climate Action), accounting graduates are demanded to comprehend and engage with climate-related risks, evaluate environmental performance, and report sustainability results to stakeholders. The competition meets this demand by promoting undergraduate students to conceptualize and formulate climate solutions, thus putting them as conveyors and promoters of sustainability instead of passive observers. This transformation reflects global demands to include sustainability into professional education, assuring graduates are not merely employable but also prepared to support to sustainable societal objectives.

Although the competition improved awareness of SDG No. 13 and delivered a pleasant learning experience, it was not distinctly recognized as a medium for engaging with faculty members. Students mostly perceived the competition as a peer-oriented activity concentrated on creativity and teamwork rather than interaction among faculty members. This limitation proposes that although the competition is useful in promoting student-centered learning, further approaches may be required to strengthen faculty participation in sustainability education. Overall, the competition proves how creative, active, and collaborative education can make sustainability learning both influential and enjoyable. Notwithstanding some limitations, it functions as a promising approach for incorporating SDGs into higher education in manners to motivate students and equip them to handle global challenges.

The results of this study also underscore that the SDG No. 13 Pitching Video Competition functioned not merely as a platform for stimulating awareness of climate action but also serve as a way for enhancing the soft and technical skills of accounting undergraduates. Students reported notable improvements in analytical and critical thinking skills, cognitive skills, communication skills, creativity, and technical competencies such as digital presentation. Despite these positive results, their significance is further highlighted when considered in the wider perspective of accounting education and its emerging role in promoting the sustainable development agenda. Conventional accounting curriculum have frequently been criticized for their strong emphasis on technical proficiencies with limited stress on sustainability-related knowledge, problem-solving skills, and ethical reasoning. The video competition that required students to deal with the challenging and immediate issue of climate change, provide an opportunity for the students to incorporate both technical and soft skills through an interactive, experiential approach that moves beyond the traditional classroom setting.

The outcomes of this study disclose that the SDG No. 13 Pitching Video Competition produced not only cognitive but also social and emotional gains for accounting undergraduates. Students detailed the preparation process as an emotional and social success, highlighting the prominence of affective learning in sustainability education. This is important, as accounting curricula have conventionally stressed technical proficiencies while neglecting the enrichment of emotional and interpersonal abilities. Nonetheless, addressing climate change involves not only analytical skill but also empathy and the capacity to coordinate joint action. Students also underlined the competition as an effective approach to convey ideas about the SDGs, specifically climate action, while developing the ability to connect visuals, concepts, and words in purposeful ways. These outcomes are vital because they reflect the professional requirements placed on accountants nowadays, who are progressively anticipated to communicate sustainability facts, interpret complex climate information for stakeholders, and incorporate financial, environmental, and social viewpoints in reporting.

The competition also supported independent learning, creativeness, and real-world exposure, talents needed for upcoming accountants who must adjust to evolving areas such as ESG assurance, carbon accounting, and climate risk management. Through the process of preparing pitching videos, students not only attained hands-on experience but also acknowledged the long-term value of generating sustainability awareness. This experiential method proves how accounting learning can transform beyond traditional teaching techniques to encourage social responsibility and climate awareness among accounting graduates. Meanwhile, it is significant to acknowledge that the SDG No. 13 Pitching Video Competition is unlikely to completely support all learning styles or individual needs. Students who are less self-assured in public speaking, creative tasks, or visual communication may possibly discovery the competition more challenging, leading to diverse learning results. This limitation suggests that although the competition is a valuable learning technique, it should be supplemented with other education approaches to guarantee inclusivity and to optimize the advantageous of sustainability learning for all accounting undergraduates.

In summary, the SDG No. 13 Pitching Video Competition denotes more than a classroom activity. The competition is an approach of experiential learning that equips accounting undergraduates to perform as sustainability leaders. By integrating ability development with climate awareness, the initiative locates students within the global debate on sustainable development and emphasizes how targeted educational methods play a role in shaping the future generation of accountants as dynamic contributors to climate action.

6. Conclusion

The primary objective of this study was to evaluate the effectiveness of a pitching video competition involving Malaysian and Indonesian undergraduate accounting students in promoting awareness of Sustainable Development Goal (SDG) No. 13. The findings show that through the pitching video competition, it can improve the students' understanding of climate action with meaningful and enjoyable experience and promote transferable skills. Besides, analytical and critical thinking skills, cognitive skills, communication skills, creativity, and technical competencies such as digital presentation can be enhanced. The

students can develop and convey ideas in connecting visuals, concepts and words in purposeful ways. The competition also supported independent learning, creativeness and real-world exposure.

The findings put forward that respondent perceived the SDG No. 13 Pitching Video Competition as a valuable form of informal learning that improved their understanding of climate-related sustainability issues. This experiential, student-driven approach elevated better self-directed engagement and peer collaboration, emphasizing its capacity to complement formal curriculum-based sustainability education.

Practical implications become apparent from this study. Firstly, for educators. This suggests that informal methods such as pitching video projects and competitions could be employed as effective supplements to traditional instruction, promoting student engagement, teamwork, and creativity. These formats students to acquire possession of their learning, which could enhance motivation and retention of sustainability concepts. Also, using digital tools (e.g., social media, video platforms) could strengthen student voices and uphold climate awareness away from the campus.

Secondly, the study emphasizes a broader societal implication: innovative, non-formal learning methods such as pitching video competitions can serve as catalytic agent for fostering climate-conscious future professionals, particularly in accounting field i.e. sustainability reporting and climate risk disclosures are becoming increasingly vital. Hence, higher education institutions and regulators should consider embedding similar SDG-aligned activities into co-curricular and academic programs, or international mobility program, in this manner strengthening students' climate knowledge and sense of global responsibility.

Thirdly, for policy and curriculum planners, this study highlights the possibility of integrating SDG-related learning into broader national or institutional frameworks through low-cost, scalable formats. The use of pitching competitions can be particularly effective in contexts where formal sustainability education is still developing. This could be done by incorporating pitching competitions or project-based SDG activities as recognized components of program learning outcomes or graduate attributes.

As for the managerial implication, this study offers valuable insights for academic leaders, program coordinators, and institutional planners. The integration of SDG-focused activities, such as pitching video competitions into international mobility programs can enhance the visibility and impact of sustainability initiatives while contributing to institutional performance indicators related to internationalization. Managers in higher education institutions should consider allocating resources and formal recognition (e.g., micro-credentials, certificates) to non-formal learning experiences that promote sustainability competencies. Furthermore, establishing collaborative platforms across universities can create scalable models for co-curricular SDG engagement that align with global education strategies.

The study is without limitations. Firstly, the findings depend only on self-reported survey data, which could be subject to bias and do not completely indicate long-term behavioral

impact. Future research would adopt mixed methods such as interviews, focus groups or reflective journals to capture richer, more insights into students' cognitive and affective learning processes. Secondly, the immediate post-activity measurement confines assessment to short-term perceptions. Longitudinal studies are necessary to ascertain whether student involvement in SDG-focused activities transforms into continuous climate action and environmentally responsible behaviors over time.

Finally, the scope of this study was restricted to Malaysian and Indonesian universities. Although culturally related, this environment could not wholly represent global student populations. More comparative studies within different institutional and geographic settings would support the validity of these findings.

In a nutshell, this study adds to the increasing discourse on sustainability education by demonstrating in what way creative, participatory formats such as pitching video competitions could promote meaningful engagement with SDG No. 13. As climate issues turn out to be progressively crucial, preparing students with both knowledge and action-oriented competencies imperative for educational reform and societal transformation toward a more sustainable future.

This study offers an innovative approach by concentrating on the integration of climate awareness in a non-environmental field, showcasing in what way low-cost, collaborative interventions can support SDG implementation in an ongoing specific accounting educational area.

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Competing interests

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

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Obtained.

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

Data sharing statement

No additional data are available.

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