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In-Text Citation: (Joseph et al., 2022)
To Cite this Article: Joseph, C., Norizan, S., Radzi, A. I. N., Sawani, Y., & Rahmat, M. (2022). Examining the Effectiveness of Video Competition among Malaysian and Indonesian Accounting Undergraduates in Advancing the Sustainable Development Goals. International Journal of Academic Research in Accounting Finance and Management Sciences. 12(2), 590 – 607.

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Examining the Effectiveness of Video Competition among Malaysian and Indonesian Accounting Undergraduates in Advancing the Sustainable Development Goals

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Abstract
Universities around the globe have an important role to play in realizing sustainable development goals, especially in educating students via formal or non-formal learning. At the same time, the internationalization agenda is a key area that is gaining extra attention from universities worldwide. Thus, in supporting the sustainable development goals, non-formal education for sustainable development activities has been implemented i.e. 3 Minutes Sustainable Development Goals Ideas Video Competition, and jointly organized by two public universities (Universiti M) in Sarawak, Malaysia, and (Universitas S) East Java, Indonesia. The objective of this paper is to examine the effectiveness of video competition among Malaysian and Indonesian accounting undergraduates in advancing the Sustainable Development Goals agenda during the Covid-19 pandemic. The questionnaire using Google Form was particularly developed and distributed to all 87 students who participated in the 3 Minutes Sustainable Development Goals Ideas Video Competition from November to December 2021. Based on the descriptive results, 90% of the respondents agreed that the video competition was effective in improving awareness of sustainable development goals. In addition, this effective and self-reliant learning of sustainable development goals supports an informal learning system among accounting students. This paper contributes to new knowledge in the area of accounting education, specifically using non-formal education as part of the university's internationalization approach for sustainable development activity to improve students' awareness of this important global agenda.
Keywords: Sustainable Development Goals, Video Competition, Accounting Student, Covid-19

Introduction

Towards the end of 2015, 193-member countries of the United Nations (UN) had agreed on an inclusive agenda of 17 Sustainable Development Goals (SDGs), - exclusively

devoted to future generations to upgrade the quality of life in a sustainable manner. These 17 goals contained different themes, varying from inequity and poverty reduction to healthcare and education provision for everyone. Hence, everyone has an equal role to play in realizing the SDGs. Universities and higher education institutions are without exception. This is because universities are the outlets to train and provide knowledge pertaining to SDGs to students i.e. future leaders. In terms of knowledge acquisition of SDGs, the methods of learning could either be formal or non-formal. Formal learning refers to the incorporation of SDGs into the university curriculum i.e. part of the academic program or syllabus. Meanwhile, non-formal learning refers to activities implemented outside the classroom or academic syllabus with the purpose of achieving the university's objective. Examples of SDGs activities associated with non-formal learning are community engagement, food donation drives, and charity work.

Several universities around the world have implemented non-formal SDGs activities. The Office of Sustainability at the University of North Carolina Wilmington hosted a Poster Competition the week of Earth Day open to all university students. The digital "walking posters" of at least one of the SDGs were submitted and displayed at the University Library. The poster included research or programs students had completed during the 2020–21 academic year (University Global Coalition, 2021). Other universities focused on a single SDG in the non-formal activity implementation. For example, Uni-Hamburg organized The Poster Competition SDG 10–Reduced Inequality within and across countries. In this activity, participants could share research and ideas on SDG 10 and the issue of inequality, and how to reduce it (Uni-Hamburg, 2021). Another specific non-formal SDG activity implementation was conducted by Indiana University on SDG 13: Climate Action. With the support of faculty mentors, students developed research posters based on work related to the UN SDG 13. It was an opportunity to share research with a broader audience, receive feedback from the judges, and network with colleagues. This framework provides an essential perspective on inherently global issues and is part of a broader, international approach to learning that challenges and empowers students, and creates new skills, values, and attitudes (Indiana University, 2021).

Based on these non-formal SDG learning activities implemented at universities in developed countries, the Faculty of Accountancy of *Universiti M* (Sarawak, Malaysia) has undertaken a 3 Minutes Sustainable Development Goals Ideas Video Competition (CBL_SDG) as part of fulfilling the university's key performance indicator on SDG. In line with the internationalization agenda of *Universiti M*, this video competition has been jointly organized with *Universitas S* (East Java, Indonesia) specifically for accounting students in both universities. Thus, this first-ever joint effort is unique as it involves accounting undergraduates in two developing countries. The objectives of this 3 Minutes Sustainable Development Goals Ideas Video Competition are:
•   To critically think about the Sustainable Development Goals,
•   To accept how the youth will take the lead in achieving these 17 goals

In this 3 Minutes Sustainable Development Goals Ideas Video Competition, students would demonstrate how they (as members of society) could help solve social issues faced by the university relating to one SDG. Students are asked to provide at least one recommendation or innovative solution through the video. Ideas could be captured from the university's annual reports, websites, online news, and other sources in any creative way (including presentations, animations, or other forms), original and showcasing social impact.

Thus, the objective of the paper is to measure the effectiveness of a 3-minute SDG ideas video competition in promoting the sustainable development goals (SDGs) agenda. This paper contributes to new knowledge in the area of accounting education, specifically using non-formal education as part of the university's internationalization approach for sustainable development activity to improve students' awareness of this important global agenda.

Literature Review
Sustainable Development Goal Initiatives at the Higher Education Institutions

Universities are major players in education, research, and innovation, and they play an important role in societal and economic growth as well as social change (Blasco et al., 2021). Universities' teaching, research, and third-mission activity programs are all predicated on their commitment to global sustainability (Ceulemans et al., 2015; Lozano et al., 2015). In their respective areas of responsibility, universities play a crucial role in accomplishing and promoting the SDGs (Rosen, 2020; Vilalta et al., 2018). Universities are in a unique position to assist society in solving these issues because of their leadership and commitment to education, research, and innovation. Universities must, however, adopt a comprehensive strategy for involvement that covers all SDGs (Kestin et al., 2017). They serve a dual role in implementing active policies for SDG development, raising awareness of their importance in achieving the SDGs, and teaching other actors, particularly the young, the skills and attitudes necessary to contribute to these concerns via all of their actions. Individuals with the necessary abilities, attitudes, and values should participate in the SDGs (Malesevic Perovic & Kosor, 2020). As a result, the importance of Higher Education Institutions (HEIs) in developing human capital to build the nation has increased.

The SDGs have been incorporated into previous research agendas in HEIs from a variety of perspectives (Blasco et al., 2021). These include investigating how universities are preparing students to achieve the SDGs (Filho et al., 2021), incorporating the SDGs into learning objectives and syllabuses across multiple disciplines (Kioupi & Voulvoulis, 2020), and concentrating research on sustainability and SDGs in universities (de Menezes & Minillo, 2017).

The requirement for a framework to support the inclusion of the SDGs as a whole and specific objectives in higher education programs is highlighted by (Leal et al., 2021). According to the framework approach offered, institutional, thematic, structural, and personal/individual components must all be considered for successful SDG implementation at HEIs. Several studies have emphasized the need for integrating learning outcomes and syllabi in HEI academic programs (Chaleta et al., 2021; Hansen et al., 2021). Both studies found that including SDGs in undergraduate programs is critical in raising awareness and increasing commitment to tackling sustainability challenges. Findings from both studies agreed that it is crucial to include SDGs in their undergraduate programs to increase awareness and enhance their commitment to addressing sustainability issues (Leal et al., 2019). Gender Equality, Reduced Inequalities, Decent Work and Economic Growth, Peace, Justice, and Strong Institutions were the most frequently mentioned goals (Chaleta et al., 2021). Kioupi and Voulvoulis (2020), on the other hand, expressed worry over considerable inequities in health, well-being, diversity, inclusion, and collaboration, even in environmental programs. According to the study, all universities must understand how their programs contribute to long-term sustainability in relation to the content of curriculum design and assessment. SDG-focused assignments serve to boost student learning regarding the SDGs and perceptions of competence to advance the SDGs after graduation (Collier et al., 2022).

Several studies have highlighted the role of universities in sustainability and SDG research and community programs (de Menezes & Minillo, 2017; Malesevic Perovic & Kosor, 2020; Martinez-Virto & Perez-Eransus, 2021). The university's involvement in community programs has been acknowledged as a significant contributor to the achievement of the SDGs. According to de Menezes and Minillo (2017), in the context of a community initiative organized, the benefit to society and students is clear and ultimately contributes to the achievement of the SDGs. Additionally, according to Malesevic Perovic and Kosor (2020), the HEIs research SDGs through collaboration with other countries, the promotion of best practices, and the release of data in collaboration with international authors as one way of promoting both formal and informal learning on SDG.

The common perception of HEIs as the main drivers of a country's development provided a greater opportunity for HEIs to become champions in implementing SDGs (Utama et al., 2017). The rapid development of technology and global economic, environmental and societal changes demand universities to be agile and respond to the changes that can be done through developing the management system pillared by the SDGs. Utama et al., (2017) proposed strategies to assist universities to achieve SDGs. The strategies included improving higher education quality and equity, sanitarian and environment, research and innovation, and forming more global partnerships, all with the goal of increasing graduates' competencies related to the SDGs. HEIs requires a holistic strategy, proper instructional methodologies, particular methods, and most importantly, learners' understanding of their underlying values and motivating drives in order to transform competencies into action (Giangrande et al., 2019).

Competition-Based Learning (CBL)

There are several learning approaches that can be used to achieve the intended learning outcomes. One of them is the competition-based learning (CBL) approach. Issa et al. (2014, p3) defined competition as "a contest between individuals or groups to achieve a common goal that cannot be shared". Competition can also be defined as "the act or process of competing" (Merriam-Webster, 2022). Competition can help encourage students to learn more about that particular subject or topic. In addition, competition can help stimulate student engagement and persistence in the learning activity as it can be considered a motivational trigger in a game (Kolloffel & De Jong, 2016). Ou (2019) indicated that various factors would influence the students' interest in learning, such as interest in the subject matter, motivation, and individual personalities.

Competition Based Learning (CBL) can be defined as "A constructivist approach to learning in which competition is used as a stimulus for the maximization of the ILOs specified in a given course or curriculum, while team members participate in a project under a controlled environment" (Issa et al., 2014, p5). CBL involves a group of students in an open-ended assignment with a similar case study. The groups will be evaluated based on their performance. By engaging in this competition, students can converge with the facility and their classmates better in CBL (Joseph & Rahmat, 2019). Moreover, this collaborative-based learning model can help enhance students' learning activities and outcomes because the model will maximize collaboration and knowledge sharing among students (more than one student or small groups) (Caroll, 2013). A study conducted by Burney et al (2017) found that students are motivated to work harder in class when they utilize active learning strategies as the strategies helped make tough topics easier to understand. In addition, competition-based learning drives the students to work as a team (Joseph et al., 2021).

CBL research is becoming more popular. For example, a study by Culha (2021) found that CBL forces students to engage in active learning implicitly as they try to take active roles in the learning process to win competitions. In Culha's (2021) paper, competition-based knowledge is applied to blockchain programming to increase the learning performance of blockchain technologies as the blockchain topic is complex. Blockchain and its related technologies should be learned through efficient learning mechanisms. The study found that students studied harder and tried to understand blockchain and blockchain technologies through many channels like friends, teachers, books, and the internet.

Several studies involving Malaysian accounting education have extensively examined the effectiveness of CBL using formal learning. Joseph and Rahmat (2018) found that the mind-mapping video competition was effective for teaching and learning the Advanced Financial Accounting and Reporting course, and the result proved that the students regarded the winning video from CBL as a highly effective pedagogical tool in learning topics about Corporate Social Responsibility.

The students' motivation and readiness to be involved in the competition could be influenced by many factors, such as prizes, certificates, family, and friends. A study conducted by Joseph et al (2021) found that accounting students' readiness to be involved in the business plan video pitching competition for the Strategic Management course is motivated by their desire to win, impress the judges, add value to their resume, and, most of all, obtain a certificate of participation. Radzi et al (2020) examined the participants' perceptions of the first online accounting course quiz for non-accounting majors. The findings showed that more than 40% of the respondents who participated in the competition agreed to enter this competition because of the certificate of participation.

Video-based Learning

A new era of video-based learning has emerged due to the global closure of educational institutions due to the Covid-19 epidemic. Students are forced to shift from traditional classrooms overnight into virtual classrooms by using digital technologies for learning, where course instructors could either hold live online sessions or upload pre-recorded videos to online learning platforms for students to watch and discuss (Pal & Patra, 2020). According to Hemmer (2022), video-based learning refers to learning experiences that are facilitated by video. By combining camera footage, animation, graphics, text, and audio, videos create a multi-sensory learning experience. Yoon et al (2021) identified four behavioral patterns while students were watching videos: browsing, social interaction, information seeking, and environmental configuration. Participants in the active learner group engaged in social interaction, information seeking, and environment configuration on a regular basis, whereas participants in the passive learner group engaged in only browsing. Yoon et al. (2021) also discovered that active learners outperformed passive learners in terms of learning achievement.

The literature has identified and discussed numerous educational advantages of video-based learning. Boateng (2016) discovered that students in Ghana believed video-based teaching could improve their learning outcomes and learning approach. Videos can be used to increase students' motivation and engagement and also create a joyful, collaborative learning environment (Galatsopoulou et al., 2022), improve learner retention, allow microlearning, and make content widely available via various devices such as tablets, smartphones, and even smart TVs (Hemmer, 2022). According to Galatsopoulou et al (2022), the technical aspects of the video did not pose a problem in the educational process due to

modern quality in internet connections and audio-visual productions as well as playback equipment.

People's awareness and involvement in the importance of the SDGs enables the SDGs' goals to be met satisfactorily; thus, the university community must participate in these objectives. Therefore, the higher education systems must be properly established and regulated to ensure access, equality, quality, and adequacy. The teaching content and learning process should ensure long-term development by fully utilizing the technologies, resources, and trainers involved in the sustainable educational context (Perez-Sanchez et al., 2020). The goal of instituting online education is to encourage teachers to create reusable digital educational materials. Teachers are encouraged to create reusable digital educational materials while students' critical, imaginative and innovative thinking about sustainable development can be developed through the integration of the SDGs into the various PBL models and subjects (Perez-Sanchez et al., 2020).

Based on the review of literature on SDG initiatives in higher education, CBL, and video-based learning, the paper aims to investigate the effectiveness of a 3-minute SDG ideas video competition as an informal learning approach to promoting sustainable development goals (SDGs) agenda.

Research Methodology

This study was conducted among accounting undergraduates in both universities that participated in the internationalization activity i.e. Inbound-Outbound Mobility Program in November 2021. The Inbound-Outbound Mobility Program is part of University M's annual key performance indicator requirements. This study refers to the work by Joseph and Rahmat (2018) in developing the questionnaire. The questionnaire is divided into two sections: i) Section A (demographic profile of the respondents) and; ii) Section B (examining the effectiveness of 3 Minutes Sustainable Development Goals Ideas Video Competition (CBL_SDG) using the 5-point Likert scale, 1 = strongly disagree (SD), 2 = disagree (D), 3 = mixed feelings (MF), 4 = agree (A), and 5 = strongly agree (SA)). The questionnaires were distributed to all 87 students in both universities that participated in the Inbound-Outbound Mobility Program in November 2021. However, only 50 students responded. Prior to the questionnaire distribution, the following steps took place:

• Briefing on the preparation of video by the Coordinator during the Inbound-Outbound Mobility Program in November 2021 via the Zoom platform.

• Students are requested to watch the YouTube video as a sample: https://www.youtube.com/watch?v=2nWxm2743JY. The purpose is to provide ideas for students to demonstrate how they (as members of society) could help solve social issues faced by the university relating to one SDG in a 3-minute video.

- Submission of videos to the Organizing Committee on 31 December 2021
- The judging process is conducted from 2 to 15 January 2022
- The virtual closing ceremony is conducted on 28 January 2022

Result and Discussion
Demographic Analysis

The first part of the analysis provides a descriptive overview of the respondents under study. This information enables an understanding of the background of respondents. Table 1 presents the demographic profile of the respondents.

For the characteristics of the undergraduate respondents, in terms of gender, 22% of the respondents are males and 78% are females. Seventy percent of the respondents are between 22 to 23 years old, 24% are between the ages of 24-25, and 6% are between 18-19 years old. 64% of the respondents joining in this competition are from the Faculty of Economy and Business – Universitas S, Indonesia whereas 36% are from the Faculty of Accountancy-Universiti M, Sarawak, Malaysia. About 54% of the total respondents are from Year 1, 24% are from Year 2 and 14% are Year 3 students, while the rest are from Year 4 with 8%. In terms of the number of hours spent preparing the CBL SDG Video, the majority of respondents (54%) spend between 1 and 10 hours preparing for the video competition.

Table 1
Frequency Analysis for Respondent's Demographic

Item	Frequency	Percentage (%)
Gender:		
Female	39	78
Male	11	22
Age:		
18-19 years old	3	6
20-21 years old	0	0
22-23 years old	35	70
24-25 years old	12	24
Faculty:		
Faculty of Accountancy-UiTM	25	50
Faculty of Economy and Business - USM	25	50
Year of academic:		
Year 1	27	54
Year 2	12	24
Year 3	7	14
Year 4	4	8
Number of hours taken to prepare CBL_SDG Video:		
Less than 1 hour	3	6
1-10 hours	26	52
11-20 hours	1	2
21-30 hours	3	6
More than 30 hours	17	34

Reliability Analysis

The consistency, stability, and dependability of the scores are all factors in an instrument's or questionnaire's reliability (McMillan, 2007). As a result, the internal consistency of each competency is verified using Cronbach's Alpha in SPSS. Internal consistency is outstanding if the alpha value is greater than 0.9 and acceptable if it is at least 0.7 (Blunch, 2008). Internal consistency refers to how well the survey items fit together. In

other words, a participant who responds positively to one survey item is more likely to respond positively to other survey items (Blunch, 2008).

Table 2 reports the respondents' perception of the CBL activity's effectiveness. Cronbach Alpha was used to measure the consistency of all items tested in the survey, which revealed that 0.964 is for the effectiveness of the CBL_SDG competition, technical and soft skills were 0.940 whereas video preparation was 0.932. In this study, the result shows that all three variables are acceptable because Cronbach's Alpha is greater than 0.90.

Table 2
Cronbach's Alpha

Variable	Cronbach Alpha	Numbers of items
Effectiveness of the CBL_SDG competition	0.964	13
Technical and soft skills	0.940	10
CBL_SDG video preparation	0.932	7

Table 3
Effectiveness of the CBL_SDG competition

NO.	ITEMS	Strongly disagree (%)	Disagree (%)	Mixed feelings (%)	Agree (%)	Strongly agree (%)
1.	The CBL_SDG competition enhances knowledge acquisition of SDGs in higher education.	2	0	2	34	62
2	The CBL_SDG competition enhances the application of SDGs in higher education.	2	0	2	32	64
3.	The CBL_SDG competition provides students with an experiential learning platform that allows them to discuss and present ideas through an interactive exchange.	2	0	2	38	58
4.	The CBL_SDG competition encompasses a variety of educational activities from the inception to the elaboration, construction, and transition phases of a holistic learning experience.	2	0	4	34	60

5.	The CBL_SDG competition develops students' sustainability management competency and prepares them for the future working environment.	2	0	4	50	44
6.	The CBL_SDG competition provides a platform for the students to "feel" what it is like to assume the student role in contributing to the SDG agenda.	2	0	2	40	56
7.	The CBL_SDG competition allows increased interaction between students and faculty.	2	2	4	44	48
8.	The CBL_SDG competition is relevant and useful to students.	2	0	2	38	58
9.	The CBL_SDG competition is meaningful to the learning process of students who are interested in pursuing an opportunity at some point in their careers relating to SDG.	2	2	0	50	46
10.	The CBL_SDG competition is a perfect example of an informal learning approach to education for sustainable development.	2	2	6	34	56
11.	The CBL_SDG competition provides an enjoyable experience.	2	0	6	32	60
12.	The CBL_SDG competition strengthens students' resumes -- employers seek students who have competitive "real world" experiences.	2	0	6	34	58
13.	The CBL_SDG competition should be conducted in the near future.	2	0	0	42	56

In line with the objective of this paper, Table 3 reveals that more than 90% of the respondents agree that the CBL_SDG competition: 1) enhances knowledge acquisition of SDGs in higher education; 2) enhances the application of SDGs in higher education; 3)

provides students with an experiential learning platform that allows them to discuss and present ideas through an interactive exchange; 4) encompasses a variety of educational activities from the inception to the elaboration, construction, and transition phases of a holistic learning experience; 5) develops students with sustainability management competency and prepares them for the future working environment; 6) provides a platform for the students to "feel" what it is like to assume the student's role in contributing to the SDG agenda; 7) allows increased interaction between students and faculty; 8) is relevant and useful to students; 9) is meaningful to the learning process of students who are interested in pursuing an opportunity at some point in their careers relating to SDG; 10) provides an enjoyable experience; 11) strengthens students' resumes — employers seek students who have competitive "real world" experiences; and 12) should be conducted in the near future. The remaining 10% of the respondents disagree and have mixed feelings that the CBL_SDG competition is a perfect example of an informal learning approach to education for sustainable development.

Since the competition-based learning that focuses on SDG video is highly useful and enhances knowledge in the SDG area in the video preparation, more than 90% of respondents believe that they have a better understanding of the effectiveness of the CBL_SDG competition, as reported in Table 3. This is in line with research conducted by Issa et al (2014) which stated that the study program's intended learning outcomes focus on the concepts of motivation, self-esteem, problem-solving, teamwork, solving real-world challenges, competitiveness, and creativity. Competition Based Learning (CBL) is a group of students working together on an unlimited task that involves some of the problems that students may face at their work station (Hossen, Joseph, Noyem & Rahmat, 2022). In this paper, the CBL_SDG serves as an informal learning tool to improve knowledge of sustainability issues. The learning process including the informal learning via the CBL_SDG competition in this paper should ensure long-term development by fully utilizing the technologies, resources, and trainers involved in the sustainable educational context (Perez-Sanchez et al., 2020). In addition, SDG-focused assignments such as CBL_SDG serve to boost student learning regarding the SDGs and perceptions of competence to advance the SDGs after graduation (Collier et al., 2022).

Table 4

Technical and Soft Skills

NO.	ITEMS	Strongly disagree (%)	Disagree (%)	Mixed feelings (%)	Agree (%)	Strongly agree (%)
1.	The CBL_SDG competition improves my presentation ability.	0	0	8	46	46
2.	The CBL_SDG competition improves my public speaking skills.	0	0	6	54	40
3.	The CBL_SDG competition increases my managerial competencies.	0	0	4	52	44
4.	The CBL_SDG competition improves my time management skills.	0	0	6	56	38
5.	The CBL_SDG competition allows me to gain thinking and problem-solving skills.	0	0	4	44	52
6.	The CBL_SDG competition improves my confidence level.	0	0	8	58	34
7.	The CBL_SDG competition improves my self-awareness ability.	0	0	4	56	40
8.	The CBL_SDG competition enhanced my knowledge of the SDG agenda at universities	0	0	8	50	42
9..	The CBL_SDG competition enables me to use my creative skills.	0	0	6	42	52
10.	The CBL_SDG competition enables thinking outside the box.	0	0	4	48	48

Table 4 reveals that more than 90% of the respondents agree that the CBL_SDG competition: 1) improves student presentation ability; 2) improves public speaking skills; 3) increases managerial competencies; 4) improves time management skills; 5) helps in gaining thinking and problem-solving skills; 6) improves confidence level; 7) improves self-awareness ability; 8) enhances knowledge of the SDG agenda at universities; 9) enables usage of creative skills and; 10) enables thinking outside the box. This study is in line with a study undertaken by Mitrovic, Dimitrova, Weerasinghe, Lau, and Mathews (2016), which stated that the objective of the learning resources used in video preparation can help postgraduate students acquire new skills for a pitch presentation, and use this opportunity to reflect on their own presentation skills.

Another 10% of the respondents have mixed feelings about whether the CBL_SDG competition can contribute to technical and soft skills among students in preparation for videos related to the SDG agenda.

Table 5
CBL_SDG Video Preparation

NO.	ITEMS	Strongly disagree (%)	Disagree (%)	Mixed feelings (%)	Agree (%)	Strongly agree (%)
1.	Making a CBL_SDG video is fun.	2	0	12	38	48
2.	Making CBL_SDG is engaging in terms of emotional and social attainment.	0	0	6	46	48
3.	I have learned a lot from the production of CBL_SDG in terms of integrating concepts, ideas, words, visuals, and images.	0	2	6	46	46
4.	The CBL_SDG that I produce will be useful as a learning material for future reference.	0	2	4	54	40
5.	Making the CBL_SDG video provides an opportunity for me to take control over learning.	0	2	4	46	48
6.	CBL_SDG provides a vehicle for increasing access to the practical demonstration.	0	0	6	52	42
7.	Video is the most effective way to communicate ideas about SDGs.	0	0	6	48	46

Table 5 reveals that more than 90% of the respondents agree that the CBL_SDG competition: 1) is engaging in terms of emotional and social attainment; 2) is beneficial as they learn a lot from the production of CBL_SDG in terms of integrating concepts, ideas, words, visuals, and images; 3) video will be useful as a learning material for future reference; 4) provides an opportunity for students to take control over learning; 5) provides a vehicle for increasing access to the practical demonstration; 6) video is the most effective way to communicate ideas about SDGs. Another 10% of the respondents disagree and have mixed feelings on whether making the CBL_SDG video was enjoyable.

This study is consistent with research undertaken by Nikopoulou Smyrni and Nikopoulos (2010) which stated that interactive videos have an impact on the emotional side of learners' behavior (example: real-life interaction, incorporating various sounds and musical effects that can infuse the emotional contents of the learning subject), and videos can improve attention to the lecture subject in addition to having a positive impact on learners' motivation level. As well, videos can be used to increase students' motivation and engagement and also create a joyful, collaborative learning environment (Galatsopoulou et

al., 2022), improve learner retention, allow microlearning, and make content widely available via various devices.

Descriptive Analysis

Additional descriptive analysis is used to summarize data in an organized manner by describing the relationship between variables in a sample or population. Table 6 illustrates the ranking of the variables using mean and standard deviation.

Table 6
Descriptive Analysis

Items	Mean	Std Deviation	Rank
Effectiveness of the CBL_SDG competition	4.4585	0.63830	1
Technical and soft skills	4.3780	0.47907	2
CBL_SDG video preparation	4.3743	0.54447	3

Based on Table 6, the highest mean of 4.4585 suggests that respondents felt that the CBL_SDG competition could enhance knowledge, provide an enjoyable experience, and provide a perfect example of an informal learning approach to education for sustainable development and many more. The second rank, with a total mean of 4.3780, is where the respondents felt that they could be satisfied if they put in enough work, especially in technical and soft skills. If the respondents considered the topic difficult to comprehend, they would require some way to gain a deeper understanding of the topic. Next, the third rank, with a total mean of 4.3743, can be explained where the respondents felt that video preparation is a vital element in terms of communicating ideas regarding the SDG agenda, providing students the opportunity to take control over their learning, and many more. The findings are in line with the requirement for a framework to support the inclusion of the SDGs as a whole and specific objective in higher education programs (Leal et al, ,2021). According to the framework approach offered, institutional, thematic, structural, and personal/individual components must all be considered for successful SDG implementation at HEIs.

Conclusion, Limitations and Future Research

The objective of this paper is to examine the effectiveness of video competition among Malaysian and Indonesian accounting undergraduates in advancing the Sustainable Development Goals agenda. In general, the respondents concurred that the CBL_SDG competition is a practical, informal learning approach to improving students' awareness of the SDG. This effective and autonomous learning encourages self-reliant and synchronized learners.

This study is not without any limitations. The informal CBL_SDG is a first-time activity conducted by University M in a collaboration with the UNS at one point in time. A series of activities similar to this may need to be conducted at different points in time to determine whether a similar result is obtained. Hence, careful interpretation of the results must be undertaken as this non-formal learning activity involves time (appointed judges) and

resources (materials, stationery, incentives/rewards) for the students. It would be likely to carry out semi-structured or in-depth interviews to obtain more insights into the effect of the 3 Minutes Sustainable Development Goals Ideas Video Competition on the level of SDG awareness among students. The views could as well specify potential challenges during the students' SDG non-formal learning process. The 3 Minutes Sustainable Development Goals Ideas Video Competition was only implemented among accounting undergraduates. Non-major accounting students would have different views on the 3 Minutes Sustainable Development Goals Ideas Video Competition activity.

References

Beaunoyer, E., Dupere, S., & Guitton, M. J. (2020). COVID-19 and digital inequalities: Reciprocal impacts and mitigation strategies. *Computers in Human Behavior*, *111*, 106424. https://doi.org/10.1016/j.chb.2020

Blasco, N., Brusca, I., & Labrador, M. (2021). Drivers for universities' contribution to the sustainable development goals: An analysis of Spanish public universities. *Sustainability (Switzerland), 13*(1), 1-19. https://doi.org/10.3390/su13010089

Blunch, N. J. (2008). *Introduction to structural equation modelling using SPSS and AMOS*. Thousand Oaks, CA: Sage Publications Ltd.

Boateng, R., Baoteng, S. L., Awuah, R. B., & Anderson, A. B. (2016). Videos in learning in higher education: assessing perceptions and attitudes of students at the University of Ghana, Smart Learning Environments, 3(8),1-13. doi: 10.1186/s40561-016-0031-5

Burney, L., Zascavage, V., & Matherly, M. (2017). Advancing accounting research of teaching efficacy: Developing a scale to measure student attitudes toward active learning experiences. *Leadership and Research in Education, 4*(1), 55-76.

Caroll, C. (2013). Competition based learning in the classroom. *American Society for Engineering Education*. Retrieved from:
www.asee.org/public/conferences/20/papers/6233/download.

Ceulemans, K., Molderez, I., & Van Liedekerke, L. (2015). Sustainability reporting in higher education: A comprehensive review of the recent literature and paths for further research. *Journal of Cleaner Production, 106*, 127-143.
https://doi.org/10.1016/j.jclepro.2014.09.052

Chaleta, E., Saraiva, M., Leal, F., Fialho, I., & Borralho, A. (2021). Higher education and sustainable development goals (sdg)-potential contribution of the undergraduate courses of the school of social sciences of the University of Evora. *Sustainability, 13*(4). https://doi.org/10.3390/su13041828

Collier, E., Odell, K. E., & Rosenbloom, A. (2022). Teaching sustainable development: an approach to rapidly introducing the UN sustainable development goals into an undergraduate business curriculum. *Journal of Global Responsibility*, ahead-of-print(ahead-of-print). https://doi.org/10.1108/JGR-11-2021-0100

Culha, D. (2021). Competition-based learning of blockchain programming. *Journal of Educational Technology and Online Learning, 4*(1), 46-55.

De Menezes, H. Z., & Minillo, X. K. (2017). Research and extension as a university contribution in the implementation of objectives of sustainable development goals (SDGs) in Brazil. *Meridiano 47-Journal of Global Studies, 18*, Article e18019.
https://doi.org/10.20889/M47e18019

Filho, W. L., Amaro, N., Avila, L. V., Brandli, L., Damke, L. I., Vasconcelos, C. R. P., Hernandez-Diaz, P. M., Frankenberger, F., Fritzen, B., Velazquez, L., & Salvia, A. (2021). Mapping

sustainability initiatives in higher education institutions in Latin America [Article]. *Journal of Cleaner Production, 315*, Article 128093. https://doi.org/10.1016/j.jclepro.2021.128093

Galatsopoulou, F., Kenterelidou, C., Kotsakis, R., & Matsiola, M. (2022). Examining students' perceptions towards video-based and video-assisted active learning scenarios in journalism and communication courses. *Education Sciences.*, *12*(2). https://doi.org/10.3390/educsci12020074

Giangrande, N., White, R. M., East, M., Jackson, R., Clarke, T., Coste, S. M., & Penha-Lopes, G. (2019). A competency framework to assess and activate education for sustainable development: Addressing the UN sustainable development goals 4.7 challenge. *Sustainability, 11*(10), 2832.

Gordillo, A., Lopez-Fernandez, D., & Tovar, E. (2022). Comparing the effectiveness of video-based learning and game-based learning using teacher-authored video games for software education," in *IEEE Transactions on Education*, 1-9. doi: 10.1109/TE.2022.3142688.

Hansen, B., Stiling, P., & Uy, W. F. (2021). Innovations and challenges in SDG integration and reporting in higher education: a case study from the University of South Florida [Article]. *International Journal of Sustainability in Higher Education, 22*(5), 1002-1021. https://doi.org/10.1108/IJSHE-08-2020-0310

Hemmer, A. (2022). *What is video-based learning? The future of learning explained.* Retrieved 13 June 2022 from: https://www.easygenerator.com/en/blog/e-learning/what-is-video-based-learning/

Hossen, R., Joseph, C., Noyem, J. A., & Rahmat, M. (2022). Assessing the effectiveness of competition-based learning winning video as a pedagogical tool in preparing business plan among accounting undergraduate students. *International Journal of Academic Research in Business and Social Sciences, 12*(3), 27–39.

Issa, G., Hussain, S. M., & Al-Bahadili, H. (2014). Competition-based learning: A model for integrating competitions with project-based learning using open source LMS. *International Journal of Information and Communication Technology Education (IJICTE), 10*(1), 1-13.

Indiana University. (2021). UN SDG Poster Competition. Retrieved 14 April 2022 from: https://global.iu.edu/education/internationalization/sdg/index.html

Joseph, C., Hossen, R., Rahmat, M., Noyem, J. A., & Boo Ho, V. (2021). Exploring the readiness for business proposal pitching video activity using the competition-based learning model among accounting students. *International Business Education Journal, 14*(2), 13-24. https://doi.org/10.37134/ibej.vol14.2.2.2021

Joseph, C., & Rahmat, M. (2019). Factors influencing the effectiveness of the competition based learning (CBL) activity among accounting undergraduates. International Business Education Journal, 12, 1-14.

Joseph, C., & Rahmat, M. (2018). Exploring the perception of using the competition-based learning winning video as a pedagogical tool in an accounting course. *International Journal of Academic Research in Business and Social Sciences, 8*(2), 440-451.

Kolloffel, B., & De Jong, T. (2016). Can performance feedback during instruction boost knowledge acquisition? Contrasting criterion-based and social comparison feedback. *Interactive Learning Environment, 24*(7), 1428-1438. doi:10.1080/10494820.2015.1016535

Kestin, T., Van den Belt, M., Denby, L. R., *K. E*, Thwaites, J., & Hawkes, M. (2017). *Getting Started with the SDGs in Universities: A Guide for Universities, Higher Education Institutions, and the Academic Sector*. Retrieved 22 October 2021 from https://ap-unsdsn.org/wp-content/uploads/University-SDG-Guide_web.pdf

Kioupi, V., & Voulvoulis, N. (2020). Sustainable development goals (SDGs): Assessing the contribution of higher education programmes [Article]. *Sustainability (Switzerland), 12*(17), Article 6701. https://doi.org/10.3390/SU12176701

Filho, L. W., Frankenberger, F., Salvia, A. L., Azeiteiro, U., Alves, F., Castro, P., Will, M., Platje, J., Lovren, V. O., Brandli, L., Price, E., Doni, F., Mifsud, M., & Avila, L. V. (2021). A framework for the implementation of the Sustainable Development Goals in university programmes. *Journal of Cleaner Production, 299*, Article 126915. https://doi.org/10.1016/j.jclepro.2021.126915

Filho, L. W., Shiel, C., Paco, A., Mifsud, M., Avila, L. V., Brandli, L. L., Molthan-Hill, P., Pace, P., Azeiteiro, U. M., Vargas, V. R., & Caeiro, S. (2019). Sustainable Development Goals and sustainability teaching at universities: Falling behind or getting ahead of the pack? [Article]. *Journal of Cleaner Production, 232*, 285-294. https://doi.org/10.1016/j.jclepro.2019.05.309

Lozano, R., Ceulemans, K., Alonso-Almeida, M., Huisingh, D., Lozano, F. J., Waas, T., Lambrechts, W., Lukman, R., & Hugé, J. (2015). A review of commitment and implementation of sustainable development in higher education: Results from a worldwide survey [Article]. *Journal of Cleaner Production, 108*, 1-18. https://doi.org/10.1016/j.jclepro.2014.09.048

McMillan, J. H. (2007). Classroom assessment: principles and practice for effective standards-based instruction (4th ed.). Boston: Pearson Malesevic Perovic, L., & Kosor, M. M. (2020). The efficiency of universities in achieving sustainable development goals. *Amfiteatru Economic, 22*(54), 516-532. https://doi.org/10.24818/ea/2020/54/516

Martinez-Virto, L., & Perez-Eransus, B. (2021). The role of the public university of Navarre in achieving the 1st SDG for the end of poverty [Article]. *Sustainability (Switzerland), 13*(17), Article 9795. https://doi.org/10.3390/su13179795

Merriam-Webster. (2022). Competition. In Merriam-Webster.com dictionary. Retrieved January 1, 2022, from https://www.merriam-webster.com/dictionary/competition

Mitrovic, A., Dimitrova, V., Lau, L., Weerasinghe, A., & Mathews, M. (2016). Supporting constructive video-based learning: requirements elicitation from exploratory studies. In *International Conference on Artificial Intelligence in Education* (pp. 224-237). Springer, Cham.

Nikopoulou-Smyrni, P., & Nikopoulos, C. (2010). *Evaluating the impact of video-based versus traditional lectures on student learning.*

Ou, X. (2019). Differential classification method in different teaching models of accounting courses based on Naïve Bayesian classification algorithm. *International Journal of Emerging Technologies in Learning, 14*(8), 38-51. doi:10.3991/ijet_v14i08.10395

Pal, D., & Patra, S. (2020). University Students' Perception of Video-Based Learning in Times of COVID-19: A TAM/TTF Perspective. *International Journal of Human-Computer Interaction.* doi: 10.1080/10447318.2020.1848164

Perez-Sanchez, M., Diaz-Madronero, P., Mula, J., & Sanchis, R. (2020). The sustainable development goals (SDGS) applied to higher education. A project-based learning proposal integrated with the SDGS in bachelor degrees at the campus ALCOY (UPV), in Proceedings of EDULEARN20 Conference 6th-7th July 2020, 3997-4005.

Radzi, A. I. N., Awang Drahman, D. N., Joseph, C., Rahmat, M., & Suria, K. (2020). Competition-based learning strategy of the online introductory accounting quiz for non-accounting Majors. *International Business Education Journal, 13*(1), 83-94.

Rosen, M. A. (2020). Do universities contribute to sustainable development? *European Journal of Sustainable Development Research, 4*(2). https://doi.org/https://doi.org/10.29333/ejosdr/6429

University Global Coalition. (2021). Sustainable Development Goals Poster Competition Information Meeting. Retrieved 15 May 2022 from: https://universityglobalcoalition.org/event/sustainable-development-goals-poster-competition-information-meeting/

Uni-Hamburg. (2021). Poster Competition: N Sustainable Development Goal 10: Reduced Inequality. Retrieved 14 April 2022 from: https://www.uni-hamburg.de/en/internationales/aktivitaeten/iu-postercompetition-sdg10.html

Utama, Y. J., Ambariyanto, A., Zainuri, M., Darsono, D., Setyono, B., Widowati, & Putro, S. P. (2017, Oct 17). Sustainable development goals as the basis of university management towards global competitiveness. *Journal of Physics Conference Series [7th international seminar on new paradigm and innovation on natural science and its application]*. 7th International Seminar on New Paradigm and Innovation on Natural Science and Its Application (ISNPINSA), Semarang, Indonesia.

Vilalta, J. M., Betts, A., & Gomez, V. (2018). The why and how of GUNi's commitment to the SDGs. Sustainable Development Goals: Actors and implementation Sustainable Development Goals: Actors and implementation: A report from the international conference, Barcelona, Spain. http://www.acup.cat/sites/default/files/2018-06/Higher%20Education%27s%20Role.pdf

Yoon, M., Lee, J., & Jo, II. (2021). Video learning analytics: investigating behavioral patterns and learner clusters in video-based online learning. *The Internet and Higher Education, 50,* https://doi.org/10.1016/j.iheduc.2021.100806