

Toward sustainability in accounting education: A reflective journey on producing interview-based podcasts

Authors

Thuy Thanh Tran ^{a*}, Christian Herzig ^b

^a TBS Education, France.

^b Justus Liebig University Giessen, Germany.

* Corresponding author. E-mail address: tuy-thanh.tran@tbs-education.fr (T.T. Tran)

Abstract

Purpose. This study explores how interview-based podcasts are produced in sustainability accounting education.

Design/methodology/approach. The self-study research method was applied; data were collected through the educators' reflections and students' learning journals.

Findings. The results provided insights into a five-phase process of producing interview-based podcasts on Environmental Management Accounting and Material Flow Cost Accounting. This process includes: (1) analysis (learning needs and motivations for creating interview-based podcasts); (2) design (learning objectives and instructional strategies); (3) development (preparation and interview-based podcast creation); (4) implementation (podcast distribution and student feedback; and (5) evaluation (student engagement and podcast improvement). Additionally, useful characteristics of the podcasts were explored: the richness of information, the clarity of content, the well-structured questions and discussions, the uniqueness of experiences shared by the experts, and the long-term benefits of the interview-based conversations.

Originality. This study contributes to the literature on innovations in accounting education and podcasting in higher education by providing insights into the illustrative steps and characteristics of interview-based podcasts.

Practical implications. Practical conclusions for podcast development in higher/accounting education can be drawn from our improvement measures within the scope of this self-study research.

Keywords: interview-based podcasts, sustainability, accounting education, reflection, self-study.

1. Introduction

Given the certainty that blended learning is tomorrow's world (Ozdil *et al.*, 2025), educational challenges exist and include the lack of innovative learning resources and adaptation to the online environment (Collins *et al.*, 2024; Howieson, 2003). The creation of podcasts plays a vital role in complementing traditional resources, such as textbooks and teaching case studies, in courses and programs (McGarr, 2009; Rich, 2012; Rime *et al.*, 2022). Podcasts refer to audio or video files distributed over the internet for playback on a personal computer or portable media device (Shim *et al.*, 2007). The use of podcasts has educational benefits such as flexibility, accessibility, and improved study habits (Kay, 2012).

In accounting education, many studies have highlighted the benefits of podcasts (O'Haver, 2020; Wentzel and Hart, 2020). These benefits include improving learning performance (Cameron and Dickfos, 2014), pivoting authentic assessment (Halabi, 2021), and enhancing feedback for students (Marriott and Teoh, 2012). Very few studies have investigated the production process and technology usage (e.g., Audacity) related to the podcasts (Halabi, 2021). As a rare case, Rich (2012) shows how to create exercise-based videos using iMovie and YouTube in an introductory accounting course. However, little is known about producing interview-based podcasts, especially in the field of accounting and sustainability accounting.

Sustainability accounting is a key consideration for any contemporary business, from biodiversity to modern slavery. Previous studies on sustainability accounting education have explored innovative pedagogies (IFAC, 2024; Stewart, 2024; Wong *et al.*, 2021). Recently, efforts have been made by professional bodies and universities to distribute podcasts featuring interviews with experts. For example, the Institute of Chartered Accountants of England and Wales (ICAEW) have launched a new educational resource that covers the fundamentals of sustainability for accounting students (ICAEW, 2023). The Pentland Centre for Sustainability in Business have disseminated transforming tomorrow podcasts, covering sustainability-related topics through interviews with academic experts and business leaders (Lancaster University, 2025). Collectively, four universities in Europe have collaborated to make sustainability accounting learning resources for a green economy (Account4GreenEco, 2025). While their interview-based podcasts have brought educational benefits, it is unclear how these podcasts are created.

To fill the research gaps, this study aims to address the research question: *How can interview-based podcasts be produced for sustainability accounting education?*

The study is divided into five sections. Section 2 introduces podcasting in higher education. Section 3 describes the research design. Section 4 provides an analysis of the results. Section 5 discusses the results and presents conclusions.

2. Podcasting in higher education

This section includes (1) the creators and benefits of podcasts in higher education, (2) the steps and characteristics of producing podcasts, and (3) the ADDIE model.

2.1 Creators and benefits of podcasts in higher education

Podcasts can be created by students or instructors. Student-created podcasts provide opportunities for students to develop their creativity and complete their assignments in accounting (Greene and Crespi, 2012) and other fields (Armstrong *et al.*, 2009; Mathany and Dodd, 2019). Instructor-created podcasts are often produced for three purposes: substitutional (e.g., lecture recordings), supplementary (summaries of lectures and course content and additional learning material), and creative (e.g., creating podcasts to be distributed to peers and other learners) purposes (McGarr, 2009).

Podcasts can include two groups: lecture-based and interview-based (Armstrong *et al.*, 2009; Drew, 2017; Kay, 2012). Lecture-based podcasts provide various benefits, such as supporting students in understanding the content of subjects (Wentzel and Hart, 2020), do exercises (Rich, 2012), and enhancing their examination performance (O'Haver, 2020). However, the use of lecture videos can be associated with an increase in 'surface' approaches to student learning (Trenholm *et al.*, 2019). Moreover, podcasts in the form of lectures, which are used for revision, review, and preparation for exams (Evans, 2008) may not be suitable for enabling students to process complex information at their own pace (Copley, 2007; Taplin *et al.*, 2011) and acquire expert knowledge beyond the lecture material.

Interview-based podcasts have brought other benefits (Lawlor and Donnelly, 2010). For example, podcasts featuring interviews are helpful in enhancing students' professional skills, such as creativity, technology, and literacy skills (Armstrong *et al.*, 2009). Additionally, these podcasts can help students improve their oral communication skills and engage with course content (Mathany and Dodd, 2019). Both studies are related to podcasts created by students. The purpose here is to provide guidance on how to create these podcasts and to illustrate practical examples from educators.

2.2 Steps and characteristics of producing podcasts

Guidelines for creating high-quality podcasts have been investigated in higher education (Drew, 2017; Salmon *et al.*, 2008). **Table 1** shows six steps to produce a podcast (Ahn *et al.*, 2016) and a description of each step in more detail (Berk *et al.*, 2020). For example, choosing the format and podcast tone and drafting a team is necessary for planning the podcasts (Berk *et al.*, 2020). Additionally, practical examples of creating a podcast are often illustrated for “lecture-based” podcasts (Rich, 2012). In contrast to this, our study’s purpose is to provide insights into the process of producing ‘interview-based’ podcasts.

Table 1. Steps to create podcasts.

Steps	Description/Sub-steps	Example
1. Choose a niche that meets your program's educational needs	<ul style="list-style-type: none"> ● Identify an audience and the educational need 	<ul style="list-style-type: none"> ● Motivations for using exercise-based video podcasts in an introductory course on financial accounting
2. Develop a plan for your podcast	<ul style="list-style-type: none"> ● Choose the format and podcast tone ● Draft a team 	<ul style="list-style-type: none"> ● Exercise development (preparation of exercise template and solution) ● Script creation (organisation of audio comments, review of solution)
3. Create a recording environment	<ul style="list-style-type: none"> ● Obtain the right equipment and recording environment 	<ul style="list-style-type: none"> ● Video recording (screen capture of solution preparation with narrated audio commentary), using the Jing software (http://tech.smith.com/jing/). ● Video editing (combination of multiple video files into one .mp4 file), using iMovie (http://apple.com/ilife/imovie/)
4. Record and then edit your podcast	<ul style="list-style-type: none"> ● Prepare to record ● Develop a high-quality recording process ● Edit the audio 	
5. Host your podcast	<ul style="list-style-type: none"> ● Determine your distribution model 	<ul style="list-style-type: none"> ● Blackboard / Moodle and/or YouTube
6. Share your podcast	<ul style="list-style-type: none"> ● Create show notes (e.g., transcription) or other supplementary material ● Explore options to offer continuing education ● Engage the audience with social media ● Build an educational network 	<ul style="list-style-type: none"> ● Video distribution (posting on course management website and Youtube)

Source: Adapted from the authors (Ahn *et al.*, 2016; Berk *et al.*, 2020; Rich, 2012).

The characteristics of preferred podcasts have already been examined in previous studies in higher education (Tzagkias *et al.*, 2010). These include: (1) *podcast content* (spoken content, content consistency), (2) *podcaster* (speech, style, profile), (3) *podcast context* (podcaster/listener interaction, real-world context), and (4) *technical execution* (production, packaging, distribution).

First, spoken content requires factual information and a strong topical focus (Wei and Ram, 2016) while content consistency can be related to episode structure, and reliability of inter-episode references. Second, some significant podcaster elements are speech rate, use of conversational style, and podcaster credentials (Drew, 2017). Regarding podcast context, the podcast page contains links to related material and has a store. Finally, background music, the availability of high-quality podcasts, and the portal/homepage should be carefully considered.

2.3 ADDIE model

Despite the significant contributions of previous studies on podcasting, further research is needed to develop didactic models for the production and application of podcasts in (accounting) education (Kay, 2014; McNamara and Drew, 2019) and proposing strategies to address (logistics and technical) challenges (Cho *et al.*, 2017). In this regard, the ADDIE model with its five phases – analysis, design, development, implementation, and evaluation (see **Table 2**) – offers the potential to provide a solid foundation for instructional designers in the field of podcasting (Artman, 2020)

The analysis phase focuses on identifying the learning needs of the target audience. In the design phase, attention is paid to understanding how these learners best acquire knowledge. The development phase involves the creation of teaching materials. Following that, the implementation phase includes delivering the instruction, setting up the learning environment, and integrating the materials into this environment. The final phase focuses on evaluating the results and performance (Hsu *et al.*, 2014). The various activities in each phase vary depending on the situation and learning environment (Trust and Pektas, 2018). Our study reports on the application of this model to the creation of interview-based podcasts in sustainability accounting education.

Table 2. ADDIE model for podcast-related instructional design.

Phases	Related activities
1. Analysis	Learning needs, motivation, required resources, target audience.
2. Design	Learning objectives, instructional strategies, testing strategies
3. Development	Learning resources, validation, a pilot test
4. Implementation	Participant engagement, preparation
5. Evaluation	Formative evaluation, summative evaluation

Source: Adapted from the authors (Artman, 2020; Besser *et al.*, 2022; Hsu *et al.*, 2014).

3. Research design

3.1 Self-study method

The self-study method was used to provide insights into our experience in producing and increasing the quality of interview-based podcasts toward sustainability in accounting education. This qualitative research method, which has been applied in various fields of higher education (Vanassche and Kelchtermans, 2015), focuses on practice and the improvement of practice (Berry and Kitchen, 2020). Sharing our reflections with colleagues allows them to integrate ideas into their practice (Collins *et al.*, 2024).

The five interview-based podcasts were originally developed for integration into a blended learning course for postgraduates on sustainability accounting at a German university (see **Figure 1**).

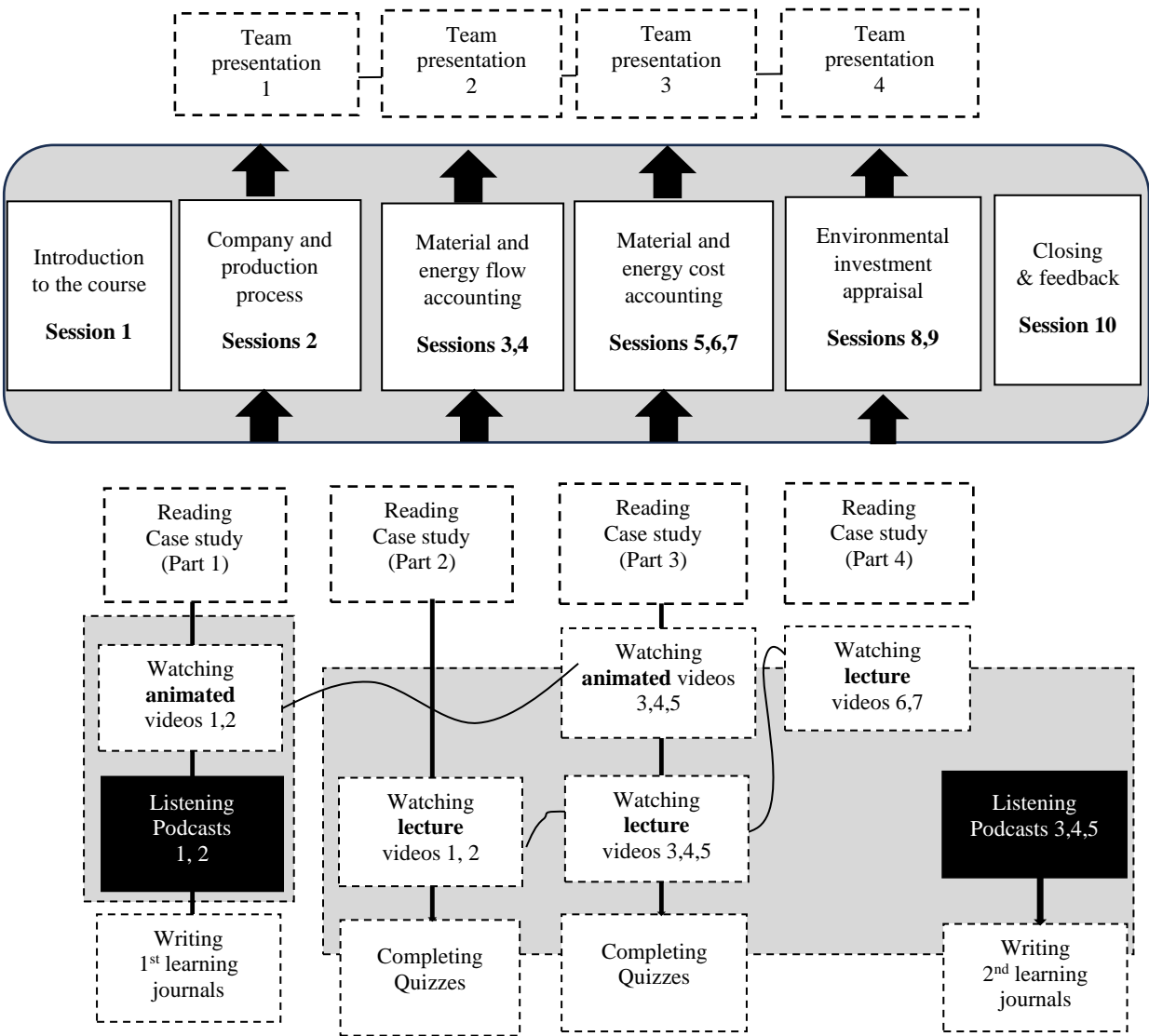


Figure 1. Interview-based podcasts used in blended and case-based learning.

Source: Created by authors.

3.2 Data collection

In order to consider how podcasts featuring interviews can be produced, data were collected based on the reflection of the educators. These considerations are based on information from the e-learning project, including proposals (i.e., content, timeline, and project budget), slides, questions prepared for the interviews (see **Appendix 1**), and images/audios stored in files and software (e.g., Zoom, Audacity, and Canvas).

The data were triangulated using students' reflections (learning journals), which helped to highlight the characteristics and potential benefits of podcasts. As part of the course, all students had to listen to five podcasts and complete two learning journals. Their learning journals were assessed and based on 'completion' criteria (i.e., students answered the instructional questions (see **Table 3**), which are crucial for ensuring that the students engage with the content of the podcasts.

Table 3. Questions in two learning journals.

First learning journal	Second learning journal
<ul style="list-style-type: none"> • How do you feel when self-learning with podcasts? 	<ul style="list-style-type: none"> • What are the differences between the fourth podcast (Japanese experts) and other podcasts?
<ul style="list-style-type: none"> • What interesting content/things do you like in podcasts? And why? 	
<ul style="list-style-type: none"> • How has MFCA developed in your home country? 	<ul style="list-style-type: none"> • How can you link what you learned in the five podcasts with the information provided in the other learning materials (the Case Study, animated videos, lecture videos, textbooks...)?
<ul style="list-style-type: none"> • How can incorporating MFCA applications contribute to solving global environmental challenges? 	

Source: Created by authors.

3.3 Data analysis

We used abductive approaches to data analysis (Mayring, 2014). At first glance, the reflection of the educators was synthesised inductively (data-driven analysis). We remained open to triangulated data (texts, pictures, recordings, videos) in order to reflect on the steps involved in designing, creating, and distributing interview-based podcasts. This process was then summarised deductively (theory-driven analysis) by comparing our reflection with the experience of previous educators (see **Table 1**). To complement the process, we summarised inductively students' reflections to reflect on the characteristics and benefits of podcasts. We then divided the steps into five phases (analysis, design, development, implementation, and evaluation) and provided a complete overview of the podcast production process using the ADDIE model as illustrated in **Figure 2**.

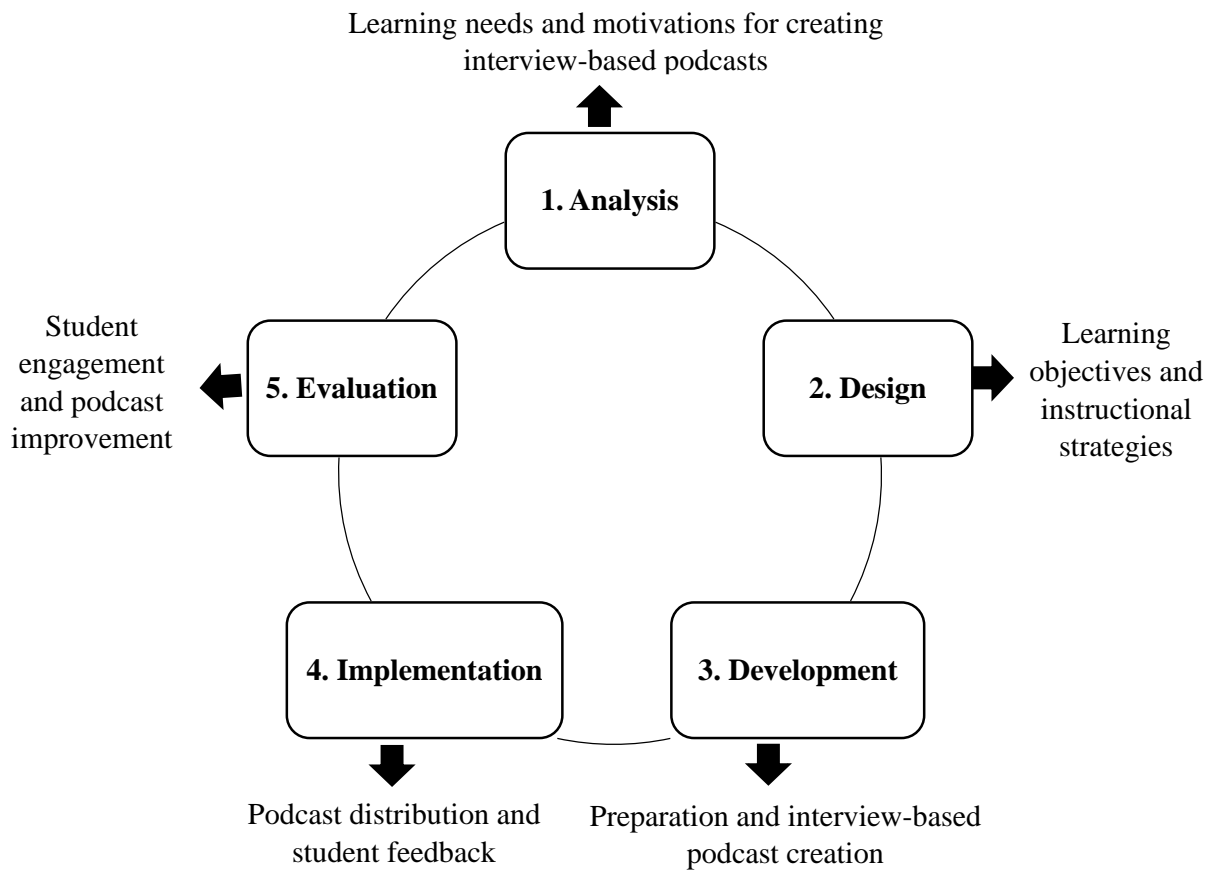


Figure 2. Application of the ADDIE model for the podcast-related instructional design.

Source: Created by authors.

4. Analysis of results

This section provides insights into the process of producing interview-based podcasts, including five phases (see **Figure 2**). Each phase (analysis, design, development, implementation, and evaluation) is presented below.

4.1 Analysis phase (Learning needs and motivations for creating interview-based podcasts)

Interview-based podcasts are a rich resource for online education for several reasons. While guest speakers are often invited to physical courses to create opportunities for students to gain exposure to the practical experience of experts and social engagement, such invitations may encounter hurdles, including online learning, time constraints and financial considerations. Given the educational challenges during COVID-19, the authors (as course educators) must switch from a physical to a blended learning environment. Interview-based podcasts constitute a flexible approach, as students can listen anytime and anywhere. To prepare for such change, educators were motivated to make innovations in course design, especially class materials such as interview-based podcasts, to help the students engage with the subject outside the class, thereby achieving their learning objectives.

Although there are some podcasts on the topics of Environmental Management Accounting (EMA) and Material Flow Cost Accounting (MFCA), the educators felt that these podcasts were not suitable for the course for two reasons. First, podcasts are often long (ranging from 20 minutes to 1 hour) and are not in English but in the local language, which may distract international students. Second, the content of these podcasts does not fit well with the objectives of the course.

4.2 Design phase (*Learning objectives and instructional strategies*)

The learning objectives of the course were to teach students to apply MFCA at the corporate level, develop critical thinking, teamwork, and communication skills, and recognize the benefits of MFCA in supporting managerial decision-making and contributing to the achievement of the Sustainable Development Goals (SDGs). To achieve these objectives, students had to learn using four parts of a case study, to complete asynchronous activities (e.g., listening to interview-based podcasts, coupled with animated videos and lecture-based videos) and to participate in synchronous team presentations (see **Figure 1** and **Table 4**).

The podcasts should highlight different perspectives on the practical application of EMA/MFCA, discuss the enablers for and barriers to application, and highlight the potential contribution of these tools to achieving the SDGs. It was important to take into account the perspectives of experts from academia and/or industry with practical experience in EMA/MFCA projects, as we wanted to make the content accessible to students and other societal actors (e.g., businesses).

Table 4. Learning materials: types, topics and purposes.

Types	Topics		Purposes
	EMA	MFCA	
<i>Animated videos (AV)</i>	AV1, AV2	AV3, AV4, AV5	Creative (hook, student interests)
<i>Case study (CS)</i>		CS1, CS2, CS3, CS4	Problem-solving
<i>Lecture-based videos (LV)</i>		LV1 – LV7	Substitutional (lecture recordings)
<i>Interview-based podcasts (POD)</i>	POD1, POD2	POD3, POD4, POD5	Supplementary (content beyond lectures)

Source: Created by authors.

A project had to be planned that would enable educators to use the financial resources available to create these podcasts. Hence, the educators applied for teaching funding and successfully received funding from a German university's Central Teaching Funding Unit. Five interview-based podcasts were created to provide unique content from various experts in the fields of EMA and MFCA.

4.3 Development phase (Preparation and interview-based podcast creation)

4.3.1 Project team, expert connection, and interview preparation

A project team was assembled to support the creation of innovative podcasts. The team consists of two educators and three students (at undergraduate and postgraduate levels). One educator determined the title of each podcast (see **Table 5**) and then contacted different experts. Since EMA and MFCA are widespread in Germany, Japan, and other Asian countries (Nakajima, 2019), emails were sent to both professors and practitioners who have more than 15 years of experience in teaching and/or consulting and/or implementing EMA/MFCA in practice. Finally, six experts were confirmed for interviews.

While three professors are from Germany, the other three practitioners are from Japan and Malaysia (see **Table 5**). These professors have expertise in teaching and research in the fields of EMA and MFCA. While one Japanese expert is the general manager of the first company in Japan to introduce MFCA, another Japanese expert is a technical expert and Japanese representative of an international environmental management standard (ISO TC 207) on green supply chain (ISO 14052). A Malaysian expert is also a member of the Asian Productivity Organisation, which supports MFCA applications in Asian countries such as Malaysia, Sri Lanka, and Vietnam.

Table 5. Five interview-based podcasts in the fields of EMA/MFCA with six experts.

Series	Title of podcast	Podcasts and Experts	Length (Initial recordings)	Length (After editing audios)
EMA	Insights into a book about EMA: case studies of South-East Asian companies	POD1 German (1)	14:32	15:24
EMA	EMA framework and the potential for its application in practice	POD2 German (1)	26:56	26:11
MFCA	MFCA: perspectives from a German expert	POD3 German (1)	14:12	15:14
MFCA	MFCA: perspectives from two Japanese experts	POD4 Japanese (2)	35:07	24:07
MFCA	MFCA: perspectives from an Asian productivity organization's expert	POD5 Malaysian (1)	12:09	13:13

Source: Created by authors.

Later, one educator began creating a structured template in which questions for each interview were defined and added (see **Appendix 1**). Another educator provided feedback before the templates and questions were sent to the interviewees. Once the interviewees agreed to the

questions, they were asked to enter their answers/ideas into the structured template. Their responses were intended to contribute to further development by linking questions and answers and controlling the length of the interviews.

4.3.2 Prepare recordings, record podcasts, create and edit audio podcasts

As this was the first audio recording, the host/moderator (one of the authors) did not have professional equipment. Hence, it was necessary to borrow this from the university to support recording activities. However, given the complexity of the equipment functioning, the host decided to use personal equipment and Zoom after testing and comparing the sound quality of various devices to simplify the recordings. In preparation for the recordings, the experts were contacted to confirm the schedule, the interview process and the final questions/scripts.

As scheduled, five interviews with six experts from the EMA/MFCA fields were recorded online using Zoom. The questions and scripts were used during the interviews to facilitate the flow of conversation. The interviews lasted between 15 and 30 minutes (see **Table 5**). After the interviews, the host saved all recordings in audio and video format and named them according to the same scheme (full name of the experts and date of the interviews).

A student of the project team was asked to provide a seven-page document with instructions on how to create and edit the podcast. Since the host of the podcasts is an educator with no experience in podcast editing, this document includes important features in Audacity for podcast editing. However, it took time for the educator to record and edit the audio podcasts, such as adjusting voices and eliminating redundant sounds, because of technical issues with the voice clarity of the interviewees (Cho *et al.*, 2017). Given the project's budget, the educators managed the funding to buy musical audio as an important element to attract the listeners. After searching for information on the internet and considering the price, an Audio Jungle was purchased from Envato Pty Ltd. to avoid any problems with copyrights and then used in all podcasts. Considering the importance of the length (less than 30 minutes), five podcasts were created, edited, and exported as MP3 audios (see **Table 5**).

4.4 Implementation phase (Podcast distribution and student feedback)

Five podcasts featuring interviews with six experts were uploaded to the university's online learning management system (i.e., Moodle). The students listened to these podcasts according to the relevant sessions (see **Figure 1**). They were requested to acquire a profound knowledge about EMA by listening to two podcasts (POD1 and POD2), where different perspectives, such as the EMA framework and education, were shared and discussed by the professors. After familiarizing

themselves with all parts of the case study, they could listen to the three podcasts (POD3, POD4, POD5) to link the MFCA knowledge acquired in a case study (material and energy flow accounting, material and energy cost accounting, and environmental investment appraisal) with other examples and different experiences of practitioners.

Based on the learning journals used to reflect on their learning, students provided positive feedback on the podcasts, which were considered well-designed and featured a variety of characteristics (see **Table 6**).

Table 6. Summary of podcast characteristics.

Characteristics	Descriptions	Examples
<i>Richness of information</i>	The richness of information was created because all the guest experts had extensive knowledge and experience in the fields of EMA and MFCA.	The podcasts were very informative. The practical examples helped me better understand the concepts of EMA and MFCA (S12-LJ1).
<i>Clarity of content</i>	The clarity of content is based on the flow of information provided, questioned, and discussed in the podcasts.	The questions made me more interested in the podcasts' discussion, which was focused and had a flow. I first understood the concepts with podcasts and tried to picture them in my mind (S3-LJ1).
<i>Well-structured questions and discussions</i>	The discussions were seen to be organized around a wide variety of thoughtful questions, which made the students more attentive.	I like the structure in which the interviewer asked questions from the interviewees in a subtly repetitive manner to get more information (S10-LJ1).
<i>Uniqueness of shared experiences from experts</i>	The five podcasts provided unique experiences as leading experts in EMA and/or MFCA shared practical examples.	The podcasts reflected insights into MFCA and EMA from the perspectives of experts from different countries. For example, a podcast mentioned a medical equipment company with high material losses (S11-LJ1).
<i>Long-term usefulness of interview-based conversations</i>	Learning with podcasts was very useful for students' future work and long-term memory because it broke down complex concepts in a simple manner.	Learning from these conversations was captivating. They will stay with me for a longer period of time (S7-LJ2).

Source: Created by authors.

While some students adapted to this type of learning (i.e., audio podcasts), other students experienced challenges with listening to the audio. They preferred to listen to these in a video format due to visualisation, providing opportunities to improve the quality of these podcasts.

4.5 Evaluation phase. Student engagement and podcast improvement

Student engagement. Given the application of podcasts and learning journals in the course, cognitive engagement was found and constructed by six indicators (see **Table 7**).

Table 7. Student cognitive engagement with interview-based podcasts.

Indicators	Explanation	Examples
<i>Self-attention</i>	Requiring the students to be attentive to get information.	I needed to pay more attention while listening to a podcast. I took notes and then listened again to grasp the content of the podcast (S1-LJ1).
<i>Effort and persistence</i>	Efforts to rewind the recording. Taking notes and self-controlling listening time.	I always rewound the recording. I liked the way the speakers had to use their voices to emphasise important concepts. I noted this when they took some pauses while speaking (S3-LJ1).
<i>Deep concentration or absorption</i>	Enhancing deep knowledge about MFCA and EMA.	The podcasts provided a better and deeper understanding of the concepts through practical examples and experience (S2-LJ1).
<i>Critical thinking</i>	Rethink the connection between EMA/MFCA and planetary boundaries.	The podcast about 'planetary boundaries' was most interesting. I had a similar assumption until this point in the course (S11-LJ1).
	Connecting various perspectives related to 'data availability'.	According to the MFCA experts in Germany and Asian countries, data availability was a challenge that impacted the effective application of MFCA. In Japan, data was readily available (S13-LJ2).
<i>Self-connection (individual interest and curiosity)</i>	Connecting what they have learned about MFCA and EMA in the podcasts with their application in countries. Curiosity about extended knowledge in academia and individual interest in applying this tool in their daily life.	My home country [the Netherlands] does not have any publications about incorporating MFCA, although it was created and is being used in our neighbouring country, Germany. Most definitely, I want to bring this concept to my future employer (S4-LJ1, S4-LJ2).
<i>Metacognition (digital support with various materials or integration of information)</i>	Cognitive learning occurred through the interaction between knowledge formation in podcasts and the information provided in the videos, case study, and textbooks of the course.	The first Japanese expert in the fifth podcast provided information about MFCA adoption in his company. He stressed that the level of awareness of the top-level managers played a pivotal role in the MFCA application. I could link that section of the podcast to the case study, where a conflict between top-level managers about balancing environmental and economic performance was discussed (S11-LJ2).

Source: Created by authors.

Podcast improvement (video podcasts, expert feedback, distribution to a wider audience). Based on student feedback on the format of podcasts, the educator (i.e., podcast creator/editor) was motivated to improve these podcasts, potentially attracting wider audiences. All podcasts were redesigned from audio podcasts to video podcasts by using the Canvas platform due to personal experience and convenience. First, five templates available on this platform were selected and used for creating video podcasts. Then, each scene's keywords were identified and based on the scripts in a specific podcast. For example, the keywords were identified: planetary boundaries, SDGs, and EMA related to question 4 in the second podcast (see **Appendix 1**). Accordingly, images, animations, voices, and music were added and edited. After that, transitions and time duration were adjusted to fit with content and sounds (see **Figure 3**). Finally, these podcasts were exported as MP4 videos.

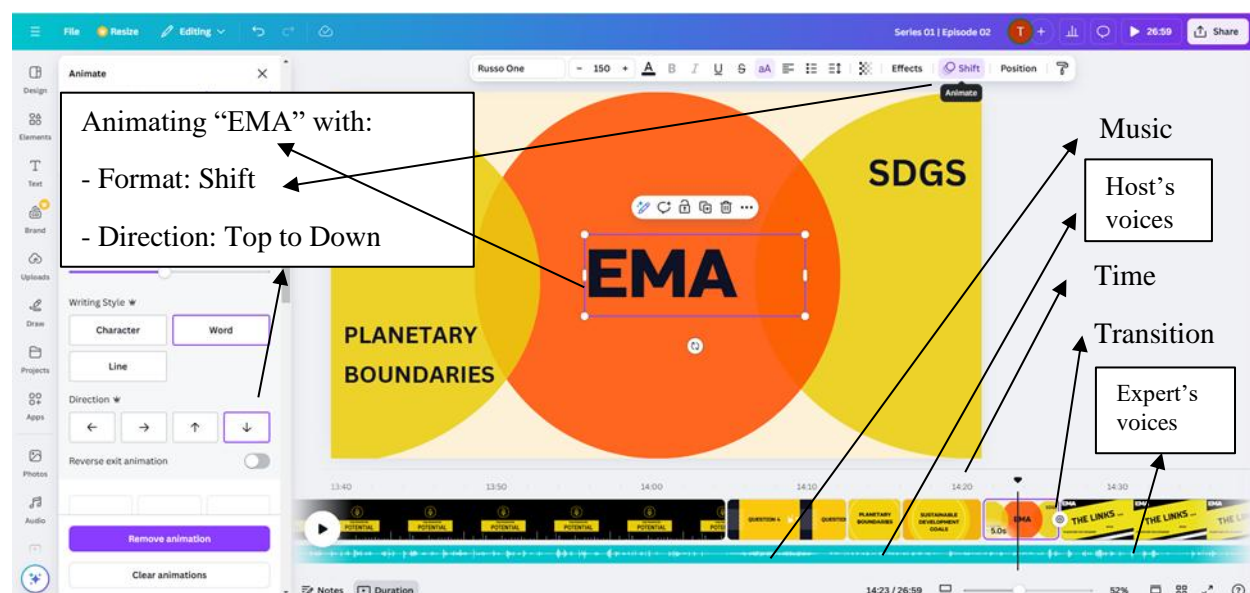


Figure 3. A screenshot of editing the second podcast in the Canvas platform.

Source: Created by authors.

The creator contacted and shared relevant video podcasts with six experts through Google Drive. While five of them were satisfied with their podcasts, one expert suggested a way to improve the second podcast. For example, two articles should be illustrated with full references so listeners can refer to and search for this information. Additionally, a summary of the first podcast series (i.e., EMA) could be added to make a good connection to the second podcast series (i.e., MFCA). All elements of video podcasts, including texts, voices, sounds, animations, and images, were carefully checked. For example, texts related to academic sources, such as two references (Bebbington and Unerman, 2018; Schaltegger, 2018) in the second podcast, were added to enhance podcaster content (Tsagkias *et al.*, 2010). Additionally, music and sound effects were

adjusted while editing effects (e.g., fades, transitions) were examined. Then, these videos were exported to the MP4 format.

Before disseminating to a wider audience, video podcasts were renamed with a consistent structure [podcast series number, episode number, guest name, date of file exported]. One educator contacted the Centre for Social and Environmental Accountability Research (CSEAR) because this is an international network that supports sustainability initiatives and facilitates teaching and external engagement with practice and policy through developing knowledge, expertise, and resources. Given the acceptance to publicise links to the resources, a short article was written, and images were designed to promote the series and episodes. Finally, a full package of the podcasts and other learning materials produced in our innovative project was prepared and will be sent to this community to be published as Open Educational Resources.

We had expected that a wider audience (e.g., from universities, institutional bodies, and business organisations) would have access to these materials. As sustainability accounting plays a vital role in addressing global challenges, disseminating knowledge and experience from experts in academia and industry can have a social impact on transformative measures. From a more individual perspective, open sharing increases awareness and the enjoyment of exchanging ideas with like-minded scholars and lecturers, even if producing high-quality videos requires a tremendous amount of effort and perseverance.

5. Discussions and conclusions

This study explored how interview-based podcasts are produced in sustainability accounting education. The finding provided evidence of applying the five phases of the ADDIE model (analysis, design, development, implementation, and evaluation) for podcast creation. Additionally, the results showed that five podcasts featuring interviews with six experts were well-designed with characteristics including the richness of information, clarity of content, well-structured questions and discussions, uniqueness of shared experiences from experts, and the long-term usefulness of interview-based conversations. The study makes theoretical contributions and provides practical implications.

5.1 Theoretical contributions

This study contributes to the literature on innovations in accounting education by extending knowledge of the step-by-step process of producing 'interview-based' podcasts. Previous studies on sustainability accounting education have focused on innovative pedagogies (IFAC, 2024; Stewart, 2024; Wong *et al.*, 2021). Unlike these studies, this paper focused on how to produce

podcasts, which are considered one of the innovative learning resources crucial in course design and pedagogical strategies. This process includes five phases, visualised in **Figure 2**. Although podcast production has been reflected in accounting education (Rich, 2012), the process is related to student-created (Greene and Crespi, 2012) or exercise-based videos (Rich, 2012). In contrast, our results focused on the production steps related to educator-created and interview-based podcasts. These podcasts provided opportunities for students to assimilate complex information (Copley, 2007) and connect with expert knowledge beyond the lectures (Drew, 2017).

This study contributes to the literature on podcasting in higher education by providing insights into interview-based podcasts' illustrative steps and characteristics. Guidance on how to create high-quality podcasts has been investigated in higher education (Drew, 2017). However, these studies focused on general or lecture-based podcasts (Ahn *et al.*, 2016; Berk *et al.*, 2020), and technical aspects such as equipment for podcasting and editing podcasts education (Salmon *et al.*, 2008). The process in this study is more comprehensive and interview-based as it involves the analysis and design phases (learning needs, learning objectives and connection with experts) and the development, implementation, and evaluation phases related to different audiences (students, experts, and practitioners) within and beyond the courses. Self-study research allowed us to reflect on our improvement practice, changing from *audio* to *video* in order to meet the diverse needs of students (Dale, 2007) and the high expectations of experts for high-quality podcasts.

Additionally, various characteristics of podcasts featuring interviews were explored. Complementing previous studies on preferred podcasts (Dale, 2007; Fernandez *et al.*, 2015; Tsagkias *et al.*, 2010), this study added evidence of indicators related to podcast content (the richness of information, clarity of content, well-structured questions and discussions, and the long-term usefulness of interview-based conversations) and podcasters (uniqueness of shared experiences from experts). However, our findings revealed that students had difficulty learning podcasts featuring interviews with experts in an “audio” format. Further research can examine whether these podcasts in a “video” format are suitable for students. Building upon the evidence on students' learning with podcasts in the study, it is worth further examining other characteristics (i.e., context and technical execution) of interview-based podcasts and the benefits of the podcasts in various settings in which students reflect.

5.2 Practical implications

The findings are helpful for educators as they provide insights into the educator's interview-based podcast production. Drawing from our improvement practices with this self-study research, some practical implications are applicable to podcasting in higher/accounting education.

Design phases. Educators may consider the podcast's length to ensure the listener's attention. The length depends on the number of questions asked and the richness of information shared by experts. While it typically ranges from 10 to 20 minutes (Guo *et al.*, 2014), two (POD2 and POD4) of the five podcasts were between 21 and 30 minutes because we did not want to interrupt the flowing, narrative conversation with the experts. Longer podcasts appeared to have a transmissive pedagogical approach and foster higher-level cognitive skills (Drew, 2017). Additionally, educators should carefully select the experts because such selection can greatly impact listener preference and the quality of podcasts (fluency, speech speed, accent, emotions, personal experiences, credentials, affiliation). They also need to decide on a single or multiple author(s) in each podcast. While some podcasts involve two speakers (one host and one guest), other podcasts have multiple guests or multiple hosts (Tsagkias *et al.*, 2010). Although multiple guests in one podcast (POD4) make conversations diverse, this choice can complicate recording and editing in the creation stage due to complex sound effects. Drawing from our experience designing learning resources, educators should identify their explicit (substitutional/supplementary/creative) purposes (see **Table 4**) and the series structure/topics of interview-based podcasts to fit with other teaching materials in their courses (Drew, 2017).

Development phase. The process of recording, creating and editing interview-based podcasts is largely affected by the format (audio or video). Although we planned and made "audio" podcasts, we must switch to "video" podcasts due to student feedback, visualisation preference, and quality improvement. Such change requires educators to put effort into learning different technological tools or software (e.g., Zoom, Audacity, and Canvas) to produce these podcasts. Our choices can be different from other technologies, such as iMovie, Jing software (Rich, 2012). We think that Audacity makes it easy to edit audio, while Canvas can support innovative videos. However, educators may face technical issues during the creation process (Guo *et al.*, 2014) related to increasing audio and visual quality that requires patience, creative-oriented, constructive feedback, and training support (Dale, 2007).

Implementation and evaluation phases. Educators may consider listener interactions (links to related material, and discussion forums) and distribution channels (platform, portal or homepage, and reliable downloading). For example, learning journals and Moodle platforms were used to help students engage with podcasts in a course on sustainability accounting, while websites were utilised to promote our podcasts to a wider audience. Given the challenges of online learning and a lack of innovative learning resources, we hope that our reflective journey on producing the podcasts (related to the five phases) can be helpful to educators and podcast producers.

Appendix 1. Podcast Interview Questions

Podcasts	Questions
POD1	<ol style="list-style-type: none"> 1. Could you please share your motivation for writing this book? 2. Can you talk more specifically about the findings of these cases? 3. Could you please give some examples to show where companies benefited from EMA? 4. What are the reasons for using EMA in practice? 5. Can you share with us your feelings when hearing of students' opinions about your book?
POD2	<ol style="list-style-type: none"> 1. Can you share with us how you came up with the idea of developing this EMA framework? 2. Can you give an example to illustrate how the framework is linked with business actors and decision-making at a specific company? 3. How do you evaluate the potential for EMA application in practice? 4. How do you see EMA being linked to planetary boundaries and sustainable development goals? 5. Could you please share with us more about the EMAN network? 6. Do you think that universities should integrate environmental management accounting into the accounting curriculum? Do you have any recommendations for educating students about environmental management accounting effectively at universities? 7. What is new in the chapter titled 'Materials and Energy Accounting' in the <i>Handbook of Environmental Accounting</i> that you wanted to inspire readers?
POD3	<ol style="list-style-type: none"> 1. How do you evaluate the current level of MFCA diffusion in Germany? 2. In your opinion, what are the enablers of and barriers to the application of MFCA in Germany that you would like to share with us from a consulting perspective? 3. Could you please provide an example to illustrate the enablers of and barriers to the application of MFCA in a specific company in Germany? 4. Could you please share with us the purpose of this group? And what are your roles as a member of this group? 5. Many companies have not applied these standards (ISO 14051, 14052 and 14053) in practice. Is this because they are voluntary, and companies are unable to enhance their corporate brands by applying the standards? What do you think? 6. What do you think about the future of MFCA applications in Germany and beyond?

Podcasts	Questions
POD4	<ol style="list-style-type: none"> 1. How do you evaluate the current level of MFCA diffusion in Japan? 2. In your opinion, what are the enablers of and barriers to MFCA application in Japan that are distinct or different from those in other countries? 3. As a manager at the company [Company Name], what were the motivations for the company to participate in the MFCA pilot project? How was MFCA applied at the company? What were the benefits of the MFCA application? What were the key factors in its success? Has the company [Company Name] continued to apply MFCA after the pilot project? 4. As a result, MFCA projects in these countries tend to focus on cost reduction rather than on emphasising environmental benefits. Do you agree with this opinion? Is it similar to the context of developed countries like Japan? 5. Do you think that MFCA is more appropriate for manufacturing companies than for companies operating in other fields? How is corporate MFCA linked with Japanese national strategies at the macro level? 6. According to you, who are the key actors in MFCA diffusion in Japan? How do you evaluate the role of the Japanese government in disseminating the application of MFCA? 7. MFCA was standardised in ISO 14051 in 2011, 14052 in 2017 and 14053 in 2021. Could you please share with us how these standards were developed? Who was involved in the process of standardisation? Can you describe your roles connected with these standards? 8. In 2011, the first standard concerning MFCA was published. However, after ten years, many companies are still unaware of the existence of these standards. What are the reasons for this? What are your suggestions to enable MFCA diffusion? 9. According to you, how is corporate MFCA linked with global sustainable development goals?
POD5	<ol style="list-style-type: none"> 1. Could you please introduce the Asian Productivity Organisation (APO) briefly? How is MFCA connected to the activities of the APO? 2. How do you evaluate the current level of MFCA diffusion in Asian countries? 3. In your opinion, what are the key barriers to MFCA application that you would like to share with us from a consulting perspective? 4. As an experienced consultant, could you please share with us two examples of companies that have successfully applied MFCA in practice? 5. What are the enablers of MFCA diffusion in these two companies and in other companies overall? 6. What do you think about the future of/potential for MFCA application? How is corporate MFCA linked with global challenges/global green productivity?

Source: Created by authors.

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