EDUCATIONAL ASSESSMENT & EVALUATION | RESEARCH ARTICLE

Tech talk: Development of a conceptual framework to enhance sport students’ communication skills and content learning through vlogs as an assessment tool

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Abstract: The 4th Industrial Revolution fuelled technological and communication disruptions within professional work sectors. The technology-enhanced sports industry necessitates graduates to disseminate knowledge utilising various technological platforms. In this regard, higher education institutions need to develop students’ technology-enhanced communication skills to succeed in the workplace. This study aimed to develop a practical conceptual framework for student vlog creation and delivery with an emphasis on enhancing communication skills while displaying content learning. The study used the ADDIE model to develop and implement the conceptual framework of instruction to embed the five canons of rhetoric for enhanced communication skills development within student vlog creation and delivery.

Subjects: Rhetoric; Educational Research; Higher Education

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PUBLIC INTEREST STATEMENT

The sports industry has witnessed a continuous growth and expansion through technological innovation. The sports tech industry has created new opportunities for fans, clubs, managers, coaches, sponsors, investors, innovators, marketers, businesses, organisations, teams and individuals through the technological disruptions. In this regards, the technological advancement of digital communication media, does not only provide a means of connection and engagement with unlimited audiences world-wide, but has been utilized as massive entrepreneurial opportunities. Sport students need the ability to leverage digital communication media to promote themselves professionally within the technology advanced workforce. A sound knowledge on sport specific subject content is important to advance professionally, however students need to intentionally develop skills to communicate, engage and influence others, in becoming content creators with a means of meaningful dissemination. Although the developed practical conceptual framework focused on sport students, the application of this framework is relevant to various disciplines.
Keywords: vlog; higher education; digital assessment; communication; skills

1. Introduction

The 4th Industrial Revolution (4IR) fuelled a technological disruption in the sport industry workforce where the technological advancements of the 4IR led to major societal changes that influenced the specific skills needed by the future workforce (Penprase, 2018; Roseman & Harol, 2017). Adams Becker et al. (2017) emphasise that current and future sport jobs will rely on roles significantly linked to technology use, which highlights the need for various forms of technical and digital skills. The technology-based competencies, also known as digital literacy, refer to the ability to interpret, understand and utilise digital resources to access or create digital content (Spante et al., 2018). Components of digital literacy include universal and creative literacy, where universal literacy refers to a familiarity in using basic digital tools and software for office productivity (Adams Becker et al., 2017). Creative literacy denotes technical skills, which lead to the production of richer content, including video and audio creation and editing (Adams Becker et al., 2017). Sports enterprises underwent a digital transformation due to 4IR and therefore sport organisations need to upskill their employees with more digital capabilities and employ graduates with enhanced digital skillsets (Giorgio et al., 2018). In addition to the technological advancements, the global pandemic has necessitated sports industries to strategically leverage digital media in new ways, and in this regard, the sports industry workforce requires new skills within the digital sport domain for enhanced business operations (Kernsberg, 2017). Sport graduates therefore need high levels of digital competency as well as soft skills such as creativity, complex problem-solving, persuasion, negotiation, attention to detail and initiative (Lewis, 2018; World Economic Forum, 2018). Likewise, human or soft skills such as originality, critical thinking, emotional intelligence, good communication and social influence will increasingly become more important within the future workforce environment according to World Economic Forum (2018). The 4IR paradigm has influenced people and societies in various ways, and specifically Industry 4.0 has changed the way in which people communicate (Lewis, 2018; World Economic Forum, 2018). The technology-based communication channels provide a more digital, flexible and responsive manner for relationships through improved connectivity (Morra et al., 2017). However, the improved connectivity does not necessarily enhance communication, and therefore future employees need to adapt to diverse communication styles, patterns and channels within the technology-enhanced environment (Morra et al., 2017). The need for enhanced communication skills on digital platforms has been highlighted by the global pandemic, which indicates that sports industry employees need to enhance their digital communication skills (Clemets & Joyce, 2020).

1.1. Skills development through technology use

The need for diverse and enhanced communication skills, utilising various technologies, has necessitated organisations to up-skill their employees with digital and soft skills (Eberhard et al., 2017; Eyo, 2016). In this regard, higher education institutions (HEIs) should similarly focus on the development of the variety of communication- and technology-based skills within curricula (Morreale & Staley, 2016; Penprase, 2018). Griesel and Parker (2009) suggest that HEIs should bridge the gap between content use and effective content creation, since there has been an active shift from content consumption to production. Jimoyiannis et al. (2013) posit that digital and communication skills intentionally have to be developed for content creation and dissemination. Therefore, HEIs need to focus on students’ skills development as co-creators of content and not merely as content consumers (Ibrahim & Devesh, 2019; McLoughlin & Lee, 2008; Noviya & Aisyah, 2017). HEIs have to rethink traditional ways of teaching, learning and assessment, and incorporate new, self-directed practices using innovative technology to develop students’ digital and soft skills such as communication (Buckner & Strawser, 2016). Likewise, new ways of higher-order cognitive ability assessments have to occur, since current pen-and-paper methods do not evaluate specific soft or digital skills (Forehand, 2010; Penprase, 2018). Innovative assessment strategies have to be incorporated, where content creation, and technology-based communication are central to achieving the digital dissemination and delivery competences (Gleason, 2018; Lin et al., 2018).
Vlogs as an assessment tool have the potential to aid the development of needed sports industry skills such as originality, problem-solving, creativity, good communication and content creation, for graduates to function within the enhanced sport digital media environment (Campbell et al., 2019; Hung, 2011). A vlog, or video blog, is similar to a blog, only in video format and is also known as “video blogging” (Molyneaux et al., 2008). The user-generated videos are published online, which allows others to access, view and comment on it (Biel & Gatica-Perez, 2010). Vlogs often embed supporting text, images and other metadata and are thematic and conversational in nature (Biel & Gatica-Perez, 2010; Marzuki, 2019). Additionally, educational institutions have used vlogs as an assessment tool to develop self-reflection as well as communication skills (Brott, 2020; Marzuki, 2019). The vlog creation process expects students to effectively display a variety of skills including verbal and non-verbal skills to construct messages aimed at specific audiences (Hung, 2011). In this regard, through the use of vlogs for assessment, students will learn to become digital content creators, develop digital communication skills and enhance technology-based competencies (Penprase, 2018). Students will not only improve the above-mentioned digital and communication skills, but also acquire insight and understanding of the sport subject content (Noviya & Aisyah, 2017; Penprase, 2018). It is imperative that sports graduates learn to communicate in a meaningful and insightful manner regarding sport-related topics within the digital innovation domain (Marzuki, 2019). Vlogs, as assessment tool, promote self-directed and deep learning through meaningful engagement with subject content, which assists students to communicate substantiated information within the digitally transformed sports industry (Agonãcs & Matos, 2019). Vlog idea-generation also leads to the production of resources and knowledge artefacts (McLoughlin & Lee, 2008), and develop problem-solving and creativity skills (Campbell et al., 2019). Considering the benefits of using vlogs for learning and assessment, development of communication and digital skills as well as content learning, this study proposed to develop a practical conceptual framework of instruction for students to create vlogs for summative assessment, which embed the development of their communication skills according to the five canons of rhetoric.

2. Rhetoric as theoretical foundation for communication in vlogs

The evaluation of content knowledge acquisition and learning is evident through effective communication and especially visible when students disseminate content within their everyday language and link it to everyday situations (Brott, 2020; El-Garawany, 2017). Therefore, the evaluation of communication skills development and content learning is referred to as good assessment practice (Eyman, 2015). Within this study, the assessment of communication skills was achieved in using the five canons of rhetoric as theoretical underpinning for the pragmatic approach. The five canons specify components of the communication process and refer to the oral/aural and bodily aspects of an oral speech or performance, including the speakers’ voice (intonation, volume and
rhythm) as well as bodily movements and gestures (Porter, 2009). Rhetoric has evolved over time, where classic rhetoric focused on persuasion through public speaking (face-to-face), while delivery had to be re-organised for the digital age (Porter, 2009). In this regard, digital rhetoric, became prevalent within the technology infused society, and focuses on conveying a message using multimedia through the construction of content (Eyman, 2015; Porter, 2009). In the case of vlog creation, it is important to note that a combination of classic rhetoric (presentation skills) and digital rhetoric is needed to construct an effective product. The canons of rhetoric aim to move students beyond strictly communicating in using mere words, but to use rhetoric as a powerful way to affect others within society (Druschke & McGreavy, 2016). The five canons of rhetoric were used as evaluation foundation of students’ vlogs, and for the development of the conceptual framework of communication skills development during vlog creation and delivery for assessment. The communication skills development will be discussed from the classical and digital rhetorical perspectives.

2.1. Canons of rhetoric

Rhetoric refers to the art of effective or persuasive speaking or writing (Merriam-Webster, 2020). The Roman philosopher Cicero elaborated on five canons or tenets of rhetoric, namely invention, arrangement, style, memory and delivery (Rapp, 2010). These components of communication specify inventing and arranging ideas, choosing and delivering the ideas through clusters of words from memory, and using a repertoire of behaviours. The canons of rhetoric serve as a standard or recommendation to measure the quality and effectiveness of speeches and speakers (Griffin et al., 2015; West & Turner, 2018). Even though rhetoric may blemish within a digital context (Eyman, 2015), rhetoric principles still provide sufficient guidelines on how to package information in a format that is authentic and entertaining (Kedrowicz & Taylor, 2016). In this regard, students creating vlogs for assessment were inter alia assessed on the five canons of rhetoric. The following section provides an overview of the principles of the five canons of rhetoric.

2.1.1. Invention

Invention refers to the speaker’s ability to assess the audience to determine what will be communicated and how the message should be conveyed to achieve its intended purpose (Wordie & Downs, 2019; West & Turner, 2018). Invention also refers to the construction and development of
arguments based on specialised knowledge about a topic within a specific context (Jiaming, 2009). In this regard, students have to learn sport-specific content and consider how to package this information for a specific audience within their vlog (Brott, 2020; Porter, 2009). Considering digital rhetoric invention as the act of searching and negotiating networks of information (Eyman, 2015), the students, as vlog creators and rhetors, have to find and incorporate ideas including others’ pictures or videos, with their own in order to engage a specific audience (Eyman, 2015). Invention during vlog creation implies the act of using own knowledge and that of others in creating material to transfer meaning regarding the planned content.

2.1.2. Arrangement
The second canon of rhetoric refers to the process of deciding how to order the material within the speech or presentation (Rapp, 2010). In this regard, the arrangement of material within the vlogs will be dependent on the topics decided upon during the invention phase (Jiaming, 2009). The basic threefold approach to a speech includes an introduction, body and conclusion and is also applicable to vlog creation. Digital rhetoric arrangement refers to the manipulation of digital media and reconstructing ready-made works into a new meaningful product (Eyman, 2015), while adhering to the classic rhetoric structure of an introduction, body and conclusion. In addition, digital rhetoric also applies to vlog creation where students arrange various pictures or videos that create memorable impressions within the introduction, body and conclusion (Porter, 2009). The digitally arranged sections in the vlogs control the speakers’ engagement with the audience, and the arrangement of digital aspects such as pictures and videos, combined with the verbal communication and style of the presenter, should be carefully considered.

2.1.3. Style
The style canon of rhetoric implies identification of words and actions that will be used to express ideas (Jiaming, 2009; Rapp, 2010). The style canon reflects the artistic aspect of communication to produce an interesting and exciting presentation, speech or communication within a vlog. In order to convey content with specific messages to the audience, presenters use different designs and style elements within speeches or vlogs (Porter, 2009). According to Eyman (2015), style in digital rhetoric comprises design elements including colour, motion, interactivity, font choice and appropriate use of various multimedia. Style in digital rhetoric for vlogs therefore refers to design elements that are inserted to engage with each other and the audience, to communicate a specific message. Design elements can therefore aid the speaker or vlogger to convey a message in an augmented manner, which resonates with the intended audience. In classic and digital rhetoric, oral and multimedia elements need to complement each other to ensure the effectiveness of the message, which can also be applied to vlog creation. In addition, considering the style of delivery with digital insertions, vloggers need to recite specific content during the presentation and therefore need to memorise specific scripts or content to communicate from memory.

2.1.4. Memory
Memory refers to the process of committing words or ideas to memory where the speaker needs to draw upon the different words and ideas during a speech (Griffin et al., 2015; West & Turner, 2018). Likewise, during the recording of a vlog, the vlogger needs to commit specific information to memory and convey the message during the video (Jiaming, 2009). The use of famous quotes, literary references, facts and own ideas needs to be memorised in such a manner that it can be reproduced in a natural manner, which engages the audience as identified during the vlog invention. According to Eyman (2015), digital rhetoric memory refers to “knowing how to retrieve and manipulate information” and present it within the digital context. In other words, memory within a digital rhetoric is linked to the idea of storing information (videos/pictures/slogans/quotes), which is easily accessible to the user to utilise at different times (Porter, 2009). The information, video or pictures stored in digital memory can consequently be retrieved at any time and reshaped into the sections of a vlog. The memorised words and stored digital multimedia, need to be retrieved, ordered and delivered within the vlog.
2.1.5. Delivery
The canon of delivery focuses on the process of presenting ideas to an audience through verbal and nonverbal communication (Rapp, 2010). It is important to note that delivery should be as natural as possible, since audiences reject presentations that are overly planned or incorporate gimmicks to draw attention (Griffin et al., 2015). Therefore, a speaker or vlogger has to actively improve delivery aspects such as eye contact and using positive body language, without forcing nonverbal behaviour during specific sections of a speech or vlog (Griffin et al., 2015; West & Turner, 2018). Delivery in public speaking requires the speaker to justify non-verbal communication, and similarly, digital content creators need to account for the delivery of the message while being video recorded. In this regard, Eymon (2015) posits that delivery within digital rhetoric is the understanding of systems of dissemination. Therefore, the vlogger needs to consider the platform used to disseminate information when constructing vlog content. For example, micro-videos are more effective on platforms such as Instagram, while longer videos are more successful on a platform such as YouTube (Brott, 2020). The delivery system needs to be planned in relation to the invention, arrangement and style canons of digital rhetoric and will only be effective if all the canons of rhetoric work together in unison. Rhetoric aims to arrange and deliver effective and accurate arguments to a specific target audience (Jaming, 2009; Porter, 2009), which needs to be considered during vlog creation. The five canons were used to evaluate the students' communication skills development as well as for the development of a practical conceptual framework.

3. The development of a practical conceptual framework for communication skills development and content learning using vlogs as assessment
The aim of this study was to develop a practical conceptual framework that can be used by students in creating vlogs for assessments that facilitate content learning and develop communication skills. A conceptual framework refers to the logical orientation and association of underlying and related thinking, structures, plans, concepts and practices (Kivunja, 2018). The development of a conceptual framework is a metacognitive and reflective element of the research process that conceptualises constructs relationally (Kivunja, 2018). The integrated understanding of constructs enables the researcher to address a specific research problem (Imenda, 2014). The conceptual framework specifically focuses on the enhancement of communication skills by means of the canons of rhetoric. The development of the conceptual framework followed the systematic process of the ADDIE model stages, which are further described within the methodology.

4. Methodology

4.1. Research design
This study followed a pragmatic approach to provide rational explanations of social matters (Burrel & Morgan, 1979). The social matter of interest in this study refers to communication skills development during students' vlog creation for assessment. This study aimed to develop a conceptual framework that can be used by lecturers and students in creating vlogs for assessment, aimed to facilitate learning and enhance communication skills based on the canons of rhetoric. The study used design-based research (DSR) with a case study approach to obtain an intensive holistic description and analysis of a single instance (vlog creation for module), which is particularistic, descriptive and heuristic (Amiel & Reeves, 2008; Merriam & Tisdell, 2016). Executing DSR enables researchers to apply an iterative research process that evaluates an innovative product or intervention (vlog creation), but systematically refines the intervention (different vlog creations). DSR enables researchers to conduct interventionist research within a real-world context (university classroom), while accepting the complexity of the context or educational environment (sport module with six male students). DSR provides a cycle that promotes the reflective and long-term foundation upon which such research can be undertaken (Amiel & Reeves, 2008; Gibbs, 2006). This study focused on the vlogs creation as it unfolded within the university classroom and how the communication skills were developed through two iterations of design-based research.
4.2. Participants
The modules used for this study forms part of the second- and third-years’ BCom Sport Business Management degree at a South African University. A purposeful sample included six male students, functioning within different sporting codes, teams, businesses and environments. There were no female students registered in this programme year group and therefore none could be included in this study. The six male students participated in the first iteration phase of vlog creation for assessment during their second-year module, and within the second iteration again during their third-year Sport Management module. Even though the number of participants were only six male students, in-depth data was obtained from the specific case study to develop the framework for vlog creation, which embeds the development of communication skills based on the canons of rhetoric.

5. Process

5.1. Phase 1: First iteration of design-based research
The participants had to create four individual vlogs based on the eight different study units within a second-year Sport Management module as part of the first round of vlog creations. Figure 1 illustrates the combined iteration phases of vlog creation for assessments and the development of the conceptual framework to enhance communication skills of sport management students.

At the onset of the semester, the lecturer introduced the use of vlogs for assessment and students showed enthusiasm to embark on having an alternative assessment to the traditional sit-down written assessments. This is substantiated by Brott (2020), where students preferred vlogging over written assignments. A YouTube sports vlog example was discussed during week one, where students received the detailed vlog assignment and timelines of vlogs for assessments. The module content was dealt with during classes, and after the completion of two consecutive study units (SUs), the students had to create a vlog that was between four and six minutes long. The vlogs had to include communication and explanations on the completed SU outcomes and content, as applied within their sport-specific codes, teams, businesses and environment they operated in. Students had to create a vlog and post it or the link on the class WhatsApp group, since the group unanimously decided not to post their vlogs on an open access platform. The vlog creation and assessment process was repeated bi-weekly as the study units within the module were completed. The vlog assessment rubric was compiled from literature and included the following elements: a) communication/explanation, b) content, c) presentation/visual impact/professionalism and d) technical (El-Garawany, 2017; Molyneaux et al., 2008; Noviya & Aisyah, 2017). The communication evaluation of students’ vlogs was based on the canons of rhetoric and proficiency levels were divided into unsatisfactory (0–2), adequate (3–4), good (5–6), proficient (7–8) and excellent (9–10). The students received specific feedback and a mark allocation on the communication as well as content delivery for each vlog. Content proficiency levels were divided into unsatisfactory (0–4), adequate (5–8), good (9–12), proficient (13–16) and excellent (17–20). For the purpose of this study, the elements of presentation/visual impact/professionalism and technical skills were not included since this study focused on the communication skills and content learning to develop a conceptual framework of instruction for vlog creation. The aim of this iteration was to provide detailed feedback to students on the canons of rhetoric for them to address the individual canon element and enhance their next vlog. The feedback aimed to guide students to develop communication skills based on the canons of rhetoric, through the repetitive measurement of canon elements. The feedback on content learning and communication skills based on the canons of rhetoric provided to the students during the semester and first round of vlog creations, were closely followed during the semester and then summarised at the end of the first iteration. The summarised findings were used within the second iteration of the design-based research.

5.2. Phase 2: Second iteration of design-based research
In Phase 2, a second iteration of DSR was executed and the ADDIE model of instructional design was used for the development of the practical conceptual framework (Bichelmeyer, 2005). The ADDIE model consists of five stages, namely analysis, design, development, implementation and evaluation (Bichelmeyer, 2005; Branson, 1978). Since the early 1970s, the ADDIE model has been
extensively used as a systematic approach of instructional design in education (Grafinger, 1988; Gustafson & Branch, 2002; Molenda, 2003; Molenda et al., 1996; Rossett, 1987). In this regard, the ADDIE model was used as basis for the execution of design-based research (DBR) to enable the refinement of educational designs. Therefore, the intended outcome of this study was to advance theory and practical application for improved educational practices (Poce et al., 2019). The sequence of the ADDIE steps does not impose a strict linear progression and in this regard, the five iterative cycles of the ADDIE model used for this study included: 1) analysis of constructs within a context, 2) design of the inter-related conceptual constructs, 3) implementation, 4) evaluation of implementation and 5) development of constructs to reach a higher level for further implementation (Guitert et al., 2020; Reeves, 2006). Figure 2 illustrates detail regarding the five ADDIE model stages and the process followed to develop the conceptual framework of instruction for students to create vlogs for assessment, which embed the development of their communication skills according to the canons of rhetoric.

5.2.1. Stage 1: Analysis of content learning and communication skills based on canons of rhetoric
The analysis stage in the conceptualization of the framework was based on the evaluation of a summary of students’ vlogs as part of a semester modules’ assessment. The researchers analysed the students’ vlog feedback and marks allocated to identify the communication elements gaps based on the canons of rhetoric to be included in the design phase for the development of the conceptual framework.

5.2.2. Stage 2: Design conceptual framework of instruction for vlog creation based on canon concepts
The findings from the summary analysis of the student assessment evaluations provided specific important concepts regarding the canons of rhetoric for communication skills development. These inter-related canons of rhetoric concepts, which were individually considered and described, are essential for good communication during vlog creation.

5.2.3. Stage 3: Implementation of a second round of vlog creation according to the designed conceptual framework
The second round of student vlog creation was implemented with an emphasis on communication skills development in using the conceptual framework with the canons of rhetoric. The same students who were enrolled in a second-year Sports Management module received a new vlog creation assignment within a third-year Sports Management semester module. The designed conceptual framework was provided to and discussed with the students to highlight the important communication aspects based on the canons of rhetoric for their consideration during the second round of vlog creation. The students had to create a second round of vlogs (during second iterative phase) regarding two study units’ outcomes, similar to the first round of vlog creation. Students received feedback and mark allocation in a similar format as the first round of vlog assignments (first iteration), and the researchers evaluated the second round of vlog creations and delivery.

5.2.4. Stage 4: Evaluation of implemented conceptual framework of instruction for vlog creation
An evaluation of the summary on the second round of vlogs created by students, provided insight into the practical applicability and functionality of the framework. Researchers used the evaluation to enter the last stage of the ADDIE model to further develop the conceptual framework.

5.2.5. Stage 5: Development of practical conceptual framework according to vlog creation process
Students followed their own process to create vlogs for assessments. The specific concepts of the canons of rhetoric, which need to be adhered to, were divided into the different steps for vlog creation and delivery. The division of the specific canons of rhetoric concepts within the different steps provided more practical application and guidance to students to focus on the specific canons
Table 1. Summary of students’ vlogs feedback from lecturer on canons of rhetoric

| Canons of rhetoric | Vlog 1                                                                 | Vlog 2                                                                 | Vlog 3                                                                 | Vlog 4                                                                 |
|--------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|
| **Invention**      | Why not ask another person what they think of the topic? (S1)       | Good engagement with audience through different camera angle shots (S1) | Excellent invention with Bloopers in intro (S1)                      | You could have done an interview with a nutritionist or performance analyst? (S2) |
|                    | Connect rather than lecture your audience (S1)                      | Insert different aspects within vlog sections (S2)                   | Great idea to use One Button Studio to record interview (S6)         | Changed intro works well (S3)                                         |
|                    | Bring in more music/elements (S2)                                   | Suggestion to talk to a coach on this topic and package it differently for audience? (S4) | Where is your funky intro? (S5)                                      | Consider to record at a different venue than your car—practice field with athletes in the background? (S4) |
|                    | Connect more with the audience (S1, 3, 5)                          | Give vlog some impact with audience—connect with them (S5)           | Try to personalize the inserted videos—use your own sport experiences (S2) | Video of youngsters you coach didn’t link to content (S5)             |
|                    | Provide examples and incorporate in delivery (S5)                  |                                                                 | Interact with persons within the sports industry to convey the content (S4) | Well done on interviewing a sports person (S6)                         |
|                    | Try to connect with the audience (S1, 3 4 and 5).                  |                                                                 |                                                                 |                                                                      |
| **Arrangement**    | Intra with music good (S1, S2, S4)                                  | Intra with videos was good (S5), however break up the sections of your vlog by inserting videos etc. (S2) | Insert an aspect in between explanations—music and videos at the end could have been cut into shorter pieces and inserted at different times during the vlog (S3) | Your vlog is organized and planning is evident (S3)                     |
|                    | Loved your intro (S6)                                               | You could have inserted music or video at beginning or end? (S3)     | You talk for long periods of time—shorten with video/picture transition (S5) | Inserted videos were good for transition (S5)                           |
|                    | Need variation with inserted videos/pictures (S6)                  | Very long middle part of vlog—becomes boring (S6)                  | Where is your intro or ending? (S3, 5, 6)                            | Your funky intro is back—good (S5)                                       |
|                    | What about an ending with videos or summary communicated (S2, 4, 5)|                                                                 |                                                                 | Good insertion of an intro and introduction of the person (S6)         |
| **Style**          | Bring in more music/elements (S2)                                  | Good switching between music and questions asked (S1)                | Videos are very similar with little transition between them (S1)      | You inserted short videos in between explanations, which is good (S2) |
|                    | Inserting definition and specific pictures was good, show pictures and text for longer (S4) | Video with text—spelling error (S1)                                  | Express some facial and vocal excitement, insert videos between discussions (S3) | Mixing up the videos to explain content with shortened videos and emoji in between was good (S3) |
|                    |                                                                      | Good news video clip insertion (S3)                                  | Good videos inserted (S4)                                            | Keep text on screen for longer (S4)                                     |

(Continued)
Table 1. (Continued)

Summary of six students’ vlogs feedback

| Canons of rhetoric | Vlog 1                                                                 | Vlog 2                                                                                     | Vlog 3                                                                                   | Vlog 4                                                                                   |
|--------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Memory             | Could see you are prepared with examples you mentioned (S1)            | You spoke well from your memory on the content (S2)                                        | Well done how you incorporated examples and link it to content (S3)                      | You shared well from personal experience within the sport high performance setting (S2)   |
|                    | Do not just read information from a source (S2, 3)                    | Seemed like you read of the adjacent screen (S3)                                          |                                                                                          | Know what you want to say or ask your interviewee (S6)                                   |
|                    | Know what you want to say (S6)                                        | Talk more from memory (S4)                                                                |                                                                                          |                                                                                              |
|                    |                                                                        | Good examples provided—speaking well from memory (S5)                                    |                                                                                          |                                                                                              |
| Delivery           | Change facial expressions and show enthusiasm (S3)                     | When asking questions to people, face each other more and talk to each other as opposed to the camera (S1) | You need to look in the camera lens to connect with the audience (S1)                    | You lost eye contact with the camera and audience (S5)                                    |
|                    | You have a natural way of talking with the audience (S5)               | Be authentic in your delivery—memorize what you want to say (S3)                          | Well done on speaking to the audience and not reading (S2)                             | Enthusiasm and facial expression needed to make your discussion interesting (S5)           |
|                    | You spoke clearly (S6)                                                 | Riding on your choir (S4)                                                                | You look so much more confident (S4)                                                    |                                                                                            |
|                    | Apply content to real-life situations (S2, 5)                          | Good questions you asked (S5)                                                            | Very good informal type of conversation with interviewee (S6)                           |                                                                                            |
|                    | Connect rather than lecture your audience (S1)                        |                                                                                          |                                                                                          |                                                                                            |

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for enhanced communication during the vlog creation and delivery process. The placement of the conceptual constructs of the canons of rhetoric into different vlog creation steps ensured a higher level of sufficiency for further implementation aimed at guiding the communication skills improvement for student vlog creation and delivery.

5.3. Ethical considerations
Ethical clearance for the research reported on was obtained from the North-West University’s Economic and Management Sciences Research Ethics Committee (EMS-REC), ethical clearance number NWU-00644-20-A4.

6. Findings
The study followed a design-based research approach with two iterations. The findings will be discussed according to these two phases. The first iteration phase includes the summary of student feedback as part of the first round of vlogs created during a second-year Sports Management module. The second iteration phase describes the findings derived by following the five stages of the ADDIE model to develop a conceptual framework of instruction for vlog creation for assessment, and includes the second round of vlog creation.

6.1. First iteration of the design-based research phase
During the first iteration phase, researchers analysed communication mistakes of students within their four vlogs created, and provided thorough feedback and marks allocated on the canons of rhetoric to students. The aim of the feedback and four cycles of assessment vlogs was that students would use the thorough feedback and implement changes within the following vlogs. Table 1 provides the summarised feedback regarding communication aspects of the six students’ vlogs created and delivered. Based on the summary of the students’ vlogs regarding communication skills displayed, the researcher was able to identify specific elements from the canons of rhetoric that students exhibited within their four vlogs as part of the first iteration cycle.

In addition to summarizing students’ communication feedback provided, the researchers also summarised the content learning feedback which is evident in Table 2.

The condensed feedback as depicted in Tables 1 and 2 within the first iteration phase highlighted that content learning took place with marginal communication skills developed. The summary further indicated that communication improvements were haphazard and not consistently applied. This guided the researchers to consider a different approach during the second iteration of design-based research on vlog assessments, with the aim to develop a conceptual framework of instruction.

6.2. Second iteration of the design-based research phase
Researchers opted to follow the ADDIE model to develop a conceptual framework of instruction to develop student communication skills in vlogs for assessment during the second iteration of the design-based research. The first stage of the ADDIE model necessitated an analysis of the elements specific to the canons of rhetoric, evident within the first iteration evaluation. In this regard, the researchers analysed the canons of rhetoric displayed by students within their different vlogs (Table 1) to identify concepts of each canon.

6.3. Analysis stage

6.3.1. Analysis of the invention canon
The first canon of rhetoric denotes that the speaker needs to consider ideas that would be interesting for a specific audience. The students needed to ascertain in advance who their audience would be. The lecturers’ feedback portrayed a common trend within most of the vlogs where students did not fully consider the content ideas or how to communicate it in an innovative
manner to the intended audience. Since the vlogs were meant to supplement the learning of class peers, as well as expose students to the YouTube platform and engaging with a variety of young sports minded individuals, students should have considered beforehand that peers and sport enthusiasts would appreciate an open, informal and engaged conversational style. A lack in audience connection within the majority of vlogs indicated that students did not consider their target audience to determine what and how they should communicate. In this regard, students were not able to connect with the audience (Eyman, 2015). Students’ first vlogs where lectures given from their room. There were few instances where students considered a different camera shot, interviewing sports person on the topic of interest, interacting and connecting more with the audience through camera eye contact and incorporating more of their own sport high performance environment they operate in to convey the content within the sport setting they have access to. Peers as the target audience most likely will not enjoy a boring theoretical reading of information or content, and students’ vlogs needed purposeful planning and invention on specialized knowledge and subject content that were applied to real-life situations to convey a specific and meaningful message. Lecturer feedback on the content of vlogs included that students occasionally applied content to real-life situations, which would have increased the peer target audience’s understanding of the topic. Students periodically managed to connect with the audience and present content in a manner proper to the audience. Within a digital context, invention also relies on the rhetors’ ability to find digital content, such as videos or photos and to incorporate it into their line of argument to enhance their own specific ideas they aim to communicate (Eyman, 2015). Students have to intentionally address the aspect of invention of their ideas considering the audience, where after the arrangement of their ideas needs to be planned.

6.3.2. Analysis of the arrangement canon
The arrangement of topics identified, and the ideas generated are usually divided into the structure of an introduction, body and conclusion. In this regard, the introduction has to capture the attention of the audience, and in vlog creation, students could use digital content or videos to achieve this purpose. The majority of students considered the invention of a funky intro video, and one even had a personal brand using his name; however, the students did not plan the body and ending of the vlog. Students often portrayed a long, monologue discussion in the middle part of the vlog, and the lecturers’ feedback often called for inclusion of videos or text to transition between ideas or topics. Students often failed to summarize the vlog content and did not provide a fitting end. However, students often included elements of music, photos or a short personal video to leave a final and memorable impression with their audience, although it did not always link with the intro or content. In this regard, West and Turner (2018) posit that speakers need to create and arouse lasting emotions with the audience in the conclusion section and when applied to the vlog and digital context, it should inspire the viewer to watch another vlog created by the same person. Students’ vlog endings needed rounding off to complete the message to inspire a repeated engagement.

6.3.3. Analysis of the style canon
Vlog creation requires students to consider the style they intended to use, where style refers to the inclusion of subject-specific ideas and arguments, examples to illustrate the relevance to the specific sport environment, and digital elements that augment their ideas and speak to the peer audience. The language and ideas expressed in the vlog need to impart an enhanced understanding of the content for the audience. However, elements of presentation are also important here as non-verbal cues can increase the creative use of language. In this regard, students’ vlogs had varied styles, with the inclusion of various videos, pictures, quotes or fun elements, and it seemed as if students experimented with various elements as artistic aspects. Unfortunately, the style or artistic element was limited to one phase of the vlog, mostly refined to the introduction with a funky video. The middle part of the vlogs contrasted the hip intro, and students seemed to insert various elements of which the intent or impact was not well planned. Students rarely adapted their overall style, with only one student switching to interviews and another inserting elements (emoji’s) during their last vlog creations. The inclusion of digital elements, such as the
### Table 2. Summary of lecturer feedback to students on content learning within vlog as assessment

| Vlog  | Vlog 2 | Vlog 3 | Vlog 4 |
|-------|-------|-------|-------|
| **Student 1** | Content good, but you need to apply the content more to the high performance setting. Could see you were prepared with examples you mentioned. *Proficiency: 15* | The application to real-life setting and theory incorporated was better, yet you can still bring more content and discussion into your vlog. Be authentic in your vlog. *Proficiency: 14* | You applied the content well to the sport situation you currently have. Content was mostly accurate, but what about an interview with person to explain ARTN framework better? *Proficiency: 14* | You could have covered more content and more application to the sport setting. You could have elaborated more on SU 7 and the real-life situation with your athletes. More application of content to your coaching? *Proficiency: 12* |
| **Student 2** | Not to read content but apply in real-life situations—interviews with players to get their perception? Try to provide examples and incorporate more SU work. *Proficiency: 13* | You didn’t maximize the opportunity to link the content to your match situation. Look to bring in more real-life situations and elaborate on them. You did not cover a lot from SU 4. Good example yet not enough application. *Proficiency: 13* | You covered good content and linked it to current issues—shorten content discussions. Connect your own experiences more with content. *Proficiency: 13* | You used a good example—yet why didn’t you explain content with an interview? Good description of factors between 18 and 20 years. *Proficiency: 12* |
| **Student 3** | I could see what you learned; enlarge your discussion on content—beyond what we discussed in class. Need to apply it more in real-world setting. Explanation on aspect was good. *Proficiency: 15* | You showed some insight to the measurement of success in different manners. Good application of content to real-life situations. Enjoyed your personal experience you shared and linking it to module content. *Proficiency: 15* | You covered good content and you knew what you wanted to communicate. Vlog was informative with good explanations. *Proficiency: 15* | You had a great explanation on SU7 content and the way you applied it to your own life sport experiences was good. You used good examples to explain aspects and motivated your opinions well. *Proficiency: 16* |
| **Student 4** | You covered some of the content, yet it was very theoretical. Apply content more to your sport setting. I need to see what you learned from the study units. *Proficiency: 13* | You applied the content well to the sport setting, and your discussions and motivations were well done—I could see that you engaged with the content and gave it some thought! You provided good examples and showed insight. *Proficiency: 16* | You applied content well to the performance sport setting—could have been better with an interview to cover content. Some good detail content in your vlog. *Proficiency: 15* | You applied content well, however, still only in usual lecture format—same comment as for previous vlog—bring in another person to apply content more to a real-life setting. *Proficiency: 15* |

(Continued)
on-screen appearance of text and emoji’s, relates to digital style rhetoric. Even though the students used elements, motion and interactivity, it did not always augment the verbal ideas communicated. In this regard, students failed to exhibit a definite style throughout the whole vlog.

6.3.4. Analysis of the memory canon
Students had to demonstrate the ability to store information and draw upon it during the vlog recording. The feedback provided stated that students initially read content from another screen in a lecture-type delivery. The reading of notes implies an inability to speak from memory; however, students seemed to improve on this matter, with numerous comments on how students spoke better from memory and used real-life examples as they created and delivered more vlogs. Even though this element improved, it still needed much development and could be augmented through the style canon. Within a digital context, students should also have the ability to know and retrieve digital elements such as videos or photos that will augment their arguments or points of discussion. The students’ engagement with digital and online sport content as well as actual sport occurrences may influence their digital memory. In this regard, students often failed to include current videos or news, and drew upon old or outdated video material to explain the content. Students did not always link module content to the most current sport occurrences and they needed to actively engage more with sport news on a daily basis. This will allow students to be able to draw upon their memory of specific sport moments or encounters that they can use to explain the module concepts. Likewise, students have to be able to search the internet for the specific sport occurrences within a video or photo and insert it in their vlog to explain the module content during their delivery.

6.3.5. Analysis of the delivery canon
The presentation or delivery of ideas to an audience through verbal and non-verbal communication needs careful consideration (Rapp, 2010). In this regard, students made several verbal and non-verbal mistakes, which were already identified within the invention canon of rhetoric as it seemed students did not identify their audience at the onset. Furthermore, students did not

Table 2 (Continued)

| Vlog 1 | Vlog 2 | Vlog 3 | Vlog 4 |
|--------|--------|--------|--------|
| Student 5 | Make sure to include more content and to apply it. You have good visual aids; however, you don't link them to the content. Proficiency: 13 | You covered some good content—yet your vlog needs creativity and impact to cover content. Your video insert was well linked to content from SU 3. Proficiency: 14 | You again covered good content, would like to see you apply it and your knowledge to specific sport situations. Need less theoretical explanation and more application. Content of SU 67 Proficiency: 14 | Your vlog was solid and you covered content, yet it is again not personalised or applied to a sport setting. You need to capitalise on the video inserts to explain content. Proficiency: 13 |
| Student 6 | You did not prepare. Proficiency: 3 | You covered a lot of the content which was good—apply it more by bringing in interviews with coaches and athletes? Ask questions and discuss points more. Proficiency: 14 | Your good questions and the good answers from interviewees covered the content in a great way! Lots of content applied in a real-world situation. Proficiency: 16 | Good application and speaking on topics as part of the conversation and interview. You covered the content well and in a different and interesting way—maybe explain concepts a little bit more. Proficiency: 16 |
connect with their audience and feedback from the lecturer reiterated that students had to make better eye contact with the camera and needed to talk to the audience instead of reading in front of the screen. Students’ delivery lacked enthusiasm and facial expressions to communicate a passion for the sport-specific topics. In this regard, lecturers’ feedback often mentioned that students should vary their tone of voice, learn to relax in front of the camera and make sure about

Table 3. Elements of canons of rhetoric included in conceptual framework

| Canons of rhetoric | Elements for inclusion in conceptual framework |
|--------------------|------------------------------------------------|
| 1. Invention       | (1) Generate ideas on specific topics  
|                    | (2) Structure the ideas/topics  
|                    | (3) Consider the digital platform that will be used (this instance YouTube) |
| 2. Arrangement     | (1) Decide how to order ideas  
|                    | (2) Plan/arrange ideas according to a structure: into an introduction, middle part or body and ending  
|                    | (3) Plan verbal communication (use scripts and storyboard tools) |
| 3. Style           | (1) Consider the audience (what they will appreciate)  
|                    | (2) Identify digital design elements and how to utilize and insert within the structure. |
| 4. Memory          | (1) Draw from memory digital content elements to include in the arrangement (use other blog examples)  
|                    | (2) Remember script developed (know what you want to say—remember the ideas and topics you verbally want to convey)  
|                    | (3) Draw from memory specific sport incidents to explain module content and use real-life examples to incorporate with presentation  
|                    | (4) Draw from previous vlogs you created and delivered and compare your presentation before submission on social media platform  
|                    | (5) Feedback from peers and lecturer stored in memory and reflected upon before next assignment. Use evaluation for improved future presentation/vlog creation and delivery |
| 5. Delivery        | (1) Analyse YouTube as platform and how verbal, non-verbal and digital content should be conveyed, ordered, inserted and presented.  
|                    | (2) Consider the setting of the video recording for effective message (formal or informal communication for the particular platform)  
|                    | (3) Record the presentation by speaking from memory to construct a natural presentation that is relevant to the target audience  
|                    | (4) Evaluate your presentation/vlog according to content and ideas invented, the video structure or arrangement of elements, delivery (verbal and non-verbal communication) and how well you spoke from memory  
|                    | (5) Consider lecturer and peer evaluation based on canons of rhetoric and other digital elements |
Table 4. Summary of students’ vlogs feedback from lecturer on the second round of vlog assessments regarding the canons of rhetoric

| Canons of rhetoric | Vlog 1                                                                 |
|--------------------|------------------------------------------------------------------------|
| Invention          | You structured your vlog ideas in a good order (S1)                   |
|                    | Good consideration of the audience (S1)                               |
|                    | I enjoyed your outdoor setting at the sports field (S2, 4, 5)        |
|                    | You could have changed the setting for the discussion of              |
|                    | the second topic (S2, 4)                                              |
|                    | Good on how you connect with the audience (S1, 5)                    |
|                    | Great intro video created (S1, 5)                                     |
| Arrangement        | The ending could have been better to relate to the                   |
|                    | great introduction (S1, 5)                                            |
|                    | Great intro, however the videos inserted, which replay,              |
|                    | become a bit mundane—need variation in the middle                     |
|                    | section (S4)                                                          |
|                    | Vlog needs a good and visually impacting ending (S2)                 |
| Style              | Videos inserted next to you on the screen makes it                   |
|                    | interesting (S4)                                                      |
|                    | Different videos used makes it interesting (S5)                       |
|                    | Camera angle should not be from below your face (S3)                  |
| Memory             | As soon as you started to talk from memory, your                    |
|                    | communication was better and you connected better with the           |
|                    | audience (S4)                                                         |
|                    | You were well prepared and knew what you wanted to                  |
|                    | communicate (S1, 2, 4 and 5)                                          |
| Delivery           | At a specific stage, your communication was a bit too                 |
|                    | rehearsed (S2)                                                        |
|                    | Your speech has improved from last year and you                      |
|                    | knew what you wanted to say (S1)                                     |
|                    | Great improvement on your communication since                        |
|                    | previous vlogs (S4)                                                   |
|                    | Sports field setting in the background augments the                   |
|                    | delivery (S2, 4 and 5)                                               |

clear and correct word pronunciation. Students seemed nervous in front of the camera and lacked self-confidence to speak boldly. This indicated that students should pay more attention to the verbal and non-verbal delivery of their message, which already starts within the invention canon of rhetoric. Students’ delivery marginally improved as they created more vlogs; however, they still needed to consider the delivery platform they will use to disseminate a vlog. The preferred social media platform for vlogs normally is YouTube, and therefore students need to adapt their verbal and non-verbal communication not only according to the target audience, but also to suit the platform. Although the vlogs for the purposes of this module were not uploaded to a digital social media site (on request by students), the assignment included the creation and delivery of a vlog, suitable for a YouTube channel with similar aged followers. The slight improvement in the delivery of communication for some students indicates that reflection of delivery took place in terms of invention, arrangement and style. Likewise, students delivered a better message when they incorporated their own sport-specific situations and therefore spoke from memory and experience; however, it was limited within few of the vlogs. It was evident where students engaged more with the content that they were able to speak from memory and therefore convey a more coherent message in a relaxed manner. The clear communication and delivery of content from memory indicated learning that occurred.

6.3.6. Analysis of the content learning
The aim of vlogs as a formal formative assessment tool needs to ascertain whether learning has taken place. Even though the aim of the research was the development of a conceptual
Table 5. Practical conceptual framework of instruction for vlog creation as assessment, and communication skills development with embedded canons of rhetoric

| Vlog creation step | Canons of rhetoric | Concepts for inclusion in framework |
|--------------------|--------------------|-------------------------------------|
| A. Planning        | A1. Invention      | A1.1 Generate ideas on specific topics  
|                    |                    | A1.2 Structure the ideas/topics      
|                    |                    | A1.3 Consider the digital platform that will be used (this instance YouTube) 
|                    | A2. Arrangement    | A2.1 Decide how to order ideas      
|                    |                    | A2.2 Plan/arrange ideas according to a structure: into an introduction, middle part or body and ending  
|                    |                    | A2.3 Plan verbal communication (use scripts and storyboard tools) 
|                    | A3. Style          | A3.1 Consider the audience (what they will appreciate)      
|                    |                    | A3.2 Identify digital design elements and how to utilize and insert within the structure. 
|                    | A4. Memory         | A4.1 Draw from memory digital content elements to include in the arrangement (use other vlog examples) 
|                    | A5. Delivery       | A5.1 Analyse YouTube as platform and how verbal, non-verbal and digital content should be conveyed, ordered, inserted and presented (consider audience). 
| B. Retrieving/creating | B1. Invention | B1.1 Retrieve digital elements from various sources and/or  
|                     |                    | B1.2 Create own digital elements   
|                     |                    | B1.3 Consider the audience and message 
|                     | B2. Arrangement    | B2.1 Retrieved and/or created elements need to be arranged according to structure of introduction, middle and ending  
|                     |                    | B2.2 Consider the style 
|                     | B3. Style          | B3.1 Create or include elements to suit own style 

(Continued)
| Vlog creation step | Canons of rhetoric | Concepts for inclusion in framework |
|--------------------|--------------------|-------------------------------------|
| C. Recording/ editing | C1. Style | C1.1 Consider the audience (what they will appreciate)  
C1.2 Record in a setting that audience can relate to  
C1.3 Edit recordings to suit the style |
|                     | C2. Memory | C2.1 Remember script developed (know what you want to say—remember the ideas and topics you verbally want to convey)  
C2.2 Draw from memory specific sport incidents to explain module content and use real-life examples to incorporate with presentation |
|                     | C3. Delivery | C3.1 Delivery needs to be authentic  
C3.2 Connect with audience  
C3.3 Know what you want to say  
C3.4 Verbal and non-verbal delivery needs to fit YouTube as platform.  
C3.5 Consider the setting of the video recording for effective message (formal or informal communication for the particular platform and to suit the style you want to create)  
C3.6 Record the presentation by speaking from memory to construct a natural presentation that is relevant the target audience  
C3.7 Evaluate your presentation/vlog according to content and ideas invented, the video structure or arrangement of elements, delivery (verbal and non-verbal communication) and how well you spoke from memory |

(Continued)
| Vlog creation step | Canons of rhetoric | Concepts for inclusion in framework |
|--------------------|-------------------|-------------------------------------|
| D. Evaluating      |                   |                                     |
| D1. Invention      |                   | D1.1 Consider your assessment of the audience and the packaging of arguments/content/message appropriate D1.2 Evaluate whether your ideas were original, creative and exciting based on audience feedback/lecturer feedback. |
| D2. Arrangement    |                   | D2.1 Consider the appropriateness of the introduction, middle and ending D2.2 Analyse whether arrangement could have been done differently D2.3 Evaluate the impact of each section |
| D3. Style          |                   | D3.1 Consider whether style was appropriate for audience D3.2 Evaluate whether digital elements suited the style D3.3 Analyse artistic aspects of vlog D3.4 Examine aspects such as colour, font, text size etc. |
| D4. Memory         |                   | D4.1 Draw from previous vlogs you viewed and the vlogs now created and delivered to compare your presentation before submission on social media platform D4.2 Feedback from peers and lecturer stored in memory and reflected upon before next assignment. Use evaluation for improved future presentation/vlog creation and delivery |
| D5. Delivery       |                   | D5.1 Evaluate verbal, non-verbal and digital communication elements and consider how audience reacted to it D5.2 Focus on enthusiasm, connecting with audience and delivering valuable message or entertainment with content intertwined. |
framework for communication skills enhancement during vlog creation and delivery, the vlogs replaced normal sit-down tests and students had to display knowledge and insight regarding the content. In this regard, the rubric used for the vlog assessment contained a section on content according to the study units’ outcomes. The students had to accurately communicate and demonstrate content, which had to be logically organized and clearly communicated within the vlogs. In addition, students had to show evidence of structured research and a range of sources identified to apply the content to real-life situations. The feedback provided by the lecturer indicated that learning has taken place: “I could see that you learned” (student 3), “good application and speaking on topics as part of the interview conversation” (student 6), “you applied the content well to the sport situation” (student 1) and “you showed some insight to the measurement of success in different manners” (student 3). The following feedback was provided regarding content inclusion in the vlogs: “content good” (student 1), “you covered good content” (student 3) and “you again covered good content” (student 5). The comments indicate that students managed to demonstrate content accurately with in-depth discussions or examples provided in many instances. The vlog format also allowed students to freely articulate their understanding of a specific topic, and the assessment tool confirmed that content learning and higher order thinking were applied. These findings are in line with Brott (2020), where students were able to communicate their reflective learning through vlogs.

The analysis of the students’ vlog creation and delivery evaluation, according to the canons of rhetoric, indicated that not all canons were fully present—both in a classical and digital sense. The presence of the canons was unfortunately haphazard and not woven into the vlog from the start to the end. Even with detailed feedback from the lecturer to students after each vlog, students seemed to correct one canon aspect, yet neglect another again. Although the evaluation indicated that a good level of learning occurred, the absence of the all the canons of rhetoric elements within all parts of the created vlogs needs to be addressed. In this regard, the researchers proceeded to the second stage of the ADDIE model to design the conceptual framework of instruction of vlogs for assessment.

6.4. Design stage
The design stage of the ADDIE model aimed to conceptualise the deficiencies of students’ communication skills during vlog delivery, based on the canons of rhetoric. During the analysis stage, each canon was individually analysed, which provided the foundation for elements to be identified and included in the initial conceptual framework and is depicted in Table 3.

The elements included in the conceptual framework provided the foundation for rhetoric development for students to adhere to in the creation and delivery of vlogs (Table 3). The concepts aimed to enhance communication skills based on the canons of rhetoric and researchers progressed to implement and evaluate the designed conceptual framework, by means of a second round of vlog creation and delivery by students.

6.5. Implementation stage
A second round of student vlog creation was implemented with an emphasis on communication skills development in using the conceptual framework on the canons of rhetoric as foundational instruction. The conceptual framework was provided to and discussed with the students to highlight the important canons of rhetoric elements necessary for their second round of vlog creation and delivery. The students performed their assessment in creating and delivering vlogs as part of a third-year module and received feedback and mark allocation in a similar format as the first round of vlog assignments. The researchers decided to evaluate the second round of vlog creation and delivery after one vlog, and not to continue with further vlog creation before amendments to the conceptual framework were done. In this regard, the researchers evaluated the feedback according to the communication rubric, as part of the evaluation stage within the ADDIE model.
6.6. Evaluation stage
The summary of students’ second round of vlog creation feedback is provided in Table 4. The summary of feedback provided to students enabled the researchers to evaluate whether students addressed the canons of rhetoric in an enhanced manner, after they encountered the conceptual framework as instruction.

Students seemed more relaxed in front of the camera and spoke more informally during the second round of vlog creation, which could be an indication that they considered the platform and their audience much better as part of the invention canon. In this regard, students smiled more during the delivery and changed the setting and a number opted to record their vlog outdoors with a sports field in the background. Students continued to create vlogs with an interesting intro video and seemed to address the middle part of the vlog better in using different styles such as text and inserted videos in an enhanced manner. Unfortunately, not all the students had a great ending, which should have left a lasting impression with the audience. This arrangement canon aspect still needs planning and effort during future instruction for vlog creation. Students showed much improved preparation on the topics, which was evident in how well they spoke as it was clear that they did more research and rehearsed what they wanted to say. Students therefore spoke more often from memory during the second round of vlogs and hardly read from a screen, which is a good improvement on the memory canon, compared to the first round of vlogs. The use of terminology and pronunciation of content related arguments improved, and students were more confident when presenting the topics. The preparation and research allowed for enhanced speaking from memory and a more relaxed delivery. Considering the feedback provided on the content learning, all the students were able to apply the content better and more consistently throughout the entire vlog. They provided real-life examples or spoke from their own sports team, business or environment experiences, which indicated enhanced invention, memory and delivery.

Students still made a few errors regarding the five canons of rhetoric; however, they seemed to be more prepared, considered additional elements of the canons, which was evident through the enhanced display of invention, arrangement and slightly adapted style and delivery performed from memory. The incremental improvements in the communication skills of sport students in the second round of vlog creation and delivery for assessment is an indication that the implementation of the conceptual framework based on the canons of rhetoric was successful. However, further development could be performed.

6.7. Development stage
Researchers collaborated to develop the conceptual framework further and considered the steps students followed to create their vlogs. In this regard, the specific elements of the canons of rhetoric included in the initial conceptual framework were divided into different steps for vlog creation and delivery. The steps of vlog creation were defined as a) planning, b) recording/editing, and d) evaluating. The expansion and division of the specific canons of rhetoric concepts within the different steps provided a more practical application and guidance for students to focus on the specific canons for enhanced communication during the vlog creation and delivery steps they followed. The further developed conceptual framework is depicted in Table 5.

The practical conceptual framework (Table 5) indicates steps to follow during vlog creation for assessment with a focus on communication skills development based on the canons of rhetoric.

7. Discussion
The lecturer and researchers embarked on a scholarship of teaching and learning project, which evolved into a two-cycled iteration of design-based research. The first round of vlog creations provided students with thorough feedback and mark allocation from the lecturer after each vlog delivery. However, even though the students showed an improvement in some canons of rhetoric
within the different vlogs, they were not able to address all the canons consistently during consecutive vlog opportunities. This indicated that despite the efforts of the lecturer in providing detailed feedback after each vlog, the students did not apply the feedback on the canons within their process to create vlog for assessments effectively. The researchers used the feedback on vlogs created in the first iteration, and commenced with a second iteration of the design-based research project (Phase 2, Figure 1) to enhance the instructional design of vlog creation for improved communication skills. In this regard, the study developed and implemented a practical conceptual framework of instruction for students to follow during vlog creation and delivery for assessment purposes. The framework specifically embedded the development of students’ communication skills based on the canons of rhetoric and also aimed to enhance content learning students displayed through digital assessment. Although the student population within this study is quite small, the instructional design-based process followed, the canons of rhetoric as theoretical foundation for commination evaluation and enhancement, as well as the use of a scientific rubric to assess learning, indicate that sound research principles were applied throughout the process (Bichelmeyer, 2005; Kivunja, 2018). In this regard, various other studies followed similar processes and applied theoretical foundations to deduce practical findings for student instruction and learning (Brott, 2020; Fitriani & Rohman, 2021; Guitert et al., 2020; Noviya & Aisyah, 2017). The value of the performed study lies within the practical application (Brott, 2020), and in this regard, the implementation and positive results obtained from the second round of vlog creation indicate the applicability of the developed practical conceptual framework. The framework provides students with a step-wise process to follow during vlog creation for assessment, with specific canons of rhetoric elements to incorporate during the various steps. The additional value of the findings further lies within the scholarship of teaching and learning for instructional design and pedagogical advancements (Henderson & Buchanan, 2007). The principles of communication development and content learning evaluation can be replicated to various subjects by repeating the iterative implementation, evaluation and adaptation of the conceptual framework process, as proposed by Guitert et al. (2020). The development of communication skills is essential for various subject group students to become content authors and creators within the digitally transformed work environment (Brott, 2020; Fitriani & Rohman, 2021). In addition, students need to develop the competency to express their understanding, interpretation and evaluation about their subject-specific content through oral and various digital and descriptive mediums (Fitriani & Rohman, 2021). Higher education institutions constantly need to adapt their teaching, learning and assessment practices to ensure that student learning, engagement and development of graduate attributes for the competitive workforce are achieved (Brott, 2020). In this regard, the developed conceptual framework paves the way for educators to implement technology-based assessments that measure content outcomes as well as competencies, enhance learning and develop graduate skills. The developed conceptual framework provides a guided stepwise structure for students to follow during vlog creation for assessment, embedded with the canons of rhetoric for enhanced communication. The conceptual framework is ready to continue with additional implementation and evaluation stages within various subject groups, to validate and adapt it during following iterations.

8. Conclusion
In this study, vlogs were used as innovative assessment tool to ascertain the communication skills and content learning within Sports Management modules. However, an elaborate instructional design framework was needed to intentionally enhance communications skills during vlog creation, since the feedback provided to students on specific canon elements was not sufficient to ensure skills enhancement. The development of the practical conceptual framework for vlog creation and delivery, based on the five canons of rhetoric, provided the needed instructional design for students to intentionally address the development of communication skills during the vlog planning, retrieving/creating, recording/editing and evaluating steps. The use of the conceptual framework for vlog creation instruction aims to address content learning and assessment as well as the technology-enhanced communication skills required by graduates as they enter the digitally enhanced 4IR sports industry.
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