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Multimodal Discourse in Digital Storytelling: An Assessment Tool Proposal

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Abstract

COVID-19 has had an impact at all levels of education. In the field of foreign language learning, educators have had to adapt the techniques and tools that they used in the physical classroom to an online environment with the implications that this involves in many different ways such as it is the case of assessment. In this paper, we will describe the use of digital storytelling for English for Specific Purposes as part of a hybrid teaching scenario in a specialized translation course at the University of Alcalá (Spain). In an online context, digital storytelling involves many elements that technology imposes and thus assessment of students' communicative competence can no longer be done traditionally. This paper aims to propose an assessment tool to help trainers evaluate students' digital stories considering all the important elements of multimodal discourse, to adapt to this new teaching reality. This will be an innovative proposal since a comprehensive tool has not been created yet that goes beyond the mere assessment of communicative competence.

Keywords: assessment, blended learning, English for specific purposes, multimodal discourse, storytelling

Introduction

Despite the disruption caused by COVID-19 in education, which has affected millions of learners and education systems around the world, many innovation proposals have also been stimulated due to this unprecedented crisis (United Nations, 2020). In the field of foreign language training, in which this research article is framed, educators from many different countries have had to develop quick responses to provide their students with online solutions while still delivering quality education (Brzoska, 2020; Reimers et al., 2020). In this sense, storytelling is a very popular technique that had so far been widely used in the physical foreign language classroom due to the many different advantages it has for students' learning (Hinduja & Abirami, 2018; Moradi & Hefang, 2019; Nami, 2020). Storytelling has also gone through a process of adaptation to enhance communicative skills but in the online class, thus becoming what is known as digital storytelling (Robin, 2011) (DST). In this regard, the assessment of students' oral skills while telling their story using a virtual application or tool involves many more elements

than what is traditionally used in the physical classroom, and trainers are usually not aware of it (Norte Fernández-Pacheco, 2016). Thus, the article aims to provide a tool for assessing multimodal discourse in foreign language learning that makes it easier for trainers to consider the most important communication elements included in an online setting. This proposal will be based on a teaching experience in an English for Specific Purposes and Specialized Translation class at the University of Alcalá during the academic year 2020-2021, in which, due to the strict restrictions imposed by the pandemic, a hybrid teaching modality was used.

In this paper, after this introduction, we will provide a theoretical framework that will help us define the main concepts associated with our research and review previous related studies. Then, we will explain the academic context in which this assessment proposal was framed, and the methodology used to create our assessment tool. Next, the tool will be presented and described. In the conclusions, we will reflect on the need to conduct this type of research study to provide trainers with the necessary tools for assessing students' communicative competence in foreign language learning considering all the elements that technology has brought to online teaching environments.

Literature review

Storytelling has been an object of study that has attracted academic attention for many years in the field of language learning due to the effectiveness it has on students' learning process compared to traditional methods (Rezende Lucarevschi, 2016). This is because students work in a fun, engaging, and contextualized way since they create their stories based on their interests, which also helps them learn and retain terminology, grammatical structures, and pronunciation (Wajnryb, 2003). The novelty of DST, when used in an online setting, is that this personal dimension is combined with mass digital dissemination because it needs to be created with technological tools (Gregori-Signes, 2014). Moreover, the story told by students will be developed in a multimodal environment (Paul & Fiebich, 2005). Thus, multimodal discourse, which can be defined as an approach to a discourse that focuses on how meaning is constructed through the use of different modes of communication, as opposed to the analysis of only linguistic features (Jones, 2012), plays a very important role. Furthermore, DST is known to transform students into active creators (Huynh Ha Le, 2020), which puts the focus on the students' development as citizens of the 21st century and, as a consequence, provides them with a set of skills that would be of use both in their personal and professional sphere, in the present and the future.

Carrying out an effective digital story entails the use of different and varied modes and, nowadays, with the existent wide variety of technological tools it seems that orchestrating image, sound, music, gestures, and text may be more important than having a good command of the spoken language (Morell, 2015). The focus of the assessment tool that we aim to propose in this paper contributes to the increasingly popular assumption that "it is no longer possible to understand language and its uses without understanding the effect of all modes of communication that are co-present in any text" (Kress, 2000, p. 337). The modes of communication include the spoken mode, the written mode, non-verbal materials (NVM) mode, and the body language mode (Morell, 2015). Thus, our rubric proposal will examine the four modes separately to effectively assess DST and for

students to learn how to vary and combine the verbal-linguistic and the non-linguistic modes, which will be of use not only for the creation process of the digital story, but also when preparing a presentation, defending a proposal, or giving arguments to support their ideas.

Academic context

This study was conducted in the optional Financial Translation course taught in the final year of the undergraduate degree in Modern Languages and Translation at the University of Alcalá in the academic year 2020-2021. As explained in the introduction, restrictions applied to this university imposed a hybrid teaching modality and, in the case of this course, involved two contact teaching hours and one hour online per week. In the physical classroom, priority was given to working on specialized translation skills that were developed through different financial texts which were related to the six different thematic areas that were covered in the course (Table 1). Thus, previous preparation for these translation classes while enhancing students' communicative skills and subject-matter competence was done through the development of digital stories that were shown in the online class. Students worked in six different groups of four members each (there were a total of 24 students in the class). The only requirement for creating the stories was that they had to include in their dialogue the keywords that were part of each of the thematic areas of the course as shown in Table 1:

Table 1
Thematic areas and keywords of the Financial Translation course. Source: Own elaboration.

Topic	**Keywords**
How to set up a company and types of companies. Differences in Spain, UK, and the USA	Corporation Firm Company Shareholder Company assets Company liabilities Incorporation Certificate of incorporation Registered office Corporation Law Shares Stock Types of companies
Financial news in English	At least 10 different terms related to current financial affairs
Financial statements	Internal control

	Accounting IFRS Auditor Consolidated financial statements Board of Directors Accounting standards Balance sheet Income statement Cash flow statements
Forensic accounting reports	Economic crime Fraud Forensic accountant Forensic audit Financial statements Compliance Financial forensics GAAP Money laundering
Stock markets	Bear market Bull market Trader Broker Dow Jones Hedge fund IBEX 35 NASDAQ Stock Exchange NYSE (New York Stock Exchange) CNMV SEC Volatility IPO ETF ADR
Banking sector	Private bank Public bank Assets Risk Q1FY21 Risk matrix Liquidity Deposit Deposit rate Capital Margin

	Disbursements

In the first class of the semester, students had an introduction to storytelling and were recommended to follow the steps explained in Table 2 to prepare it:

Table 2
Steps to follow in digital storytelling. Source: Adapted from Moradi & Hefang (2019).

Preproduction	**Production**	**Postproduction**	**Distribution**
Search for information to get acquainted with the keywords.	Preparation of multimedia content.	Content revision.	Presentation and visualization in class.
Asking questions about how to articulate the story. What happens and when, interaction (audio with images), effects, transitions.	Recording	Application of the necessary changes.	
Elaboration of the script.			

No further instructions were given to students on how to develop their story, although the lecturer was always available to answer any doubts that they had during the process. Although in this paper the focus is on the development of an assessment tool and not on the results of students' stories, it must be said that the activity was very successful among them and that they managed to use all the key terms in a very fun and creative way, using different technological tools for this end. The way that assessment was conducted for the activity was using a language rubric since the lecturer had not been able to find one that included the aspects that we analyzed in this paper and that we considered necessary to further develop. This is why we started conducting this research during the semester to have a tool that would be ready to be used in the next academic semester for DST activities of this kind.

Methodology

The methodology followed to present a tool to assess DST has been, firstly, to create the rubric here outlined, which will be described in detail in the following section, and, secondly, to validate it with a group of university lecturers who are experts on multimodality from the Universidad of Alicante and the Universitat Jaume I in Spain. After having received their feedback on the tool, several changes were implemented to improve the tool and meet the needs of the present study.

Assessment tool proposal: a multimodal rubric

The multimodal tool presented in this paper, as previously mentioned, takes into account not only the linguistic component of the discourse prepared by students but also goes beyond language and includes other aspects. For the elaboration of such tools, we have studied different assessment tools presented by several authors at high-school and university levels, and we have selected those that are closer to the objectives of this tool, that is, those that include the creation of video, image, and audio. Thus, the authors taken into account are four: McFarlane et al. (2000), Adsanatham (2012), Towndrow et al. (2013), and Bourelle et al. (2017). Furthermore, Anderson and Kachorsky (2019) presented an analysis of the existing empirical literature when assessing students' multimodal compositions, which has helped us to determine the weaknesses of the currently existing tools analyzed by the authors to build an updated rubric that could meet the needs of all teachers who want to assess the videos created by students from a multimodal perspective, as well as revise their existent rubrics. The assessment tool here included falls into the B category that these two authors (Anderson & Kachorsky, 2019) present. This category argues "that changes in the assessment must accompany the changes in approaches to literacies that have taken place over the last two decades" (p. 14). Also, the use of such rubrics is mainly for students' formative scaffolding processes, instead of being used for summative assessment. The common aspects taken into account by the authors of current rubrics are three: (1) the use of assessment tools that align with the communicative goal and competence, (2) the evidence that learners show of supporting arguments, and (3) the students' capacity to demonstrate creativity and engagement.

We would like to point out the weaknesses of the type B assessment tools reviewed by Anderson and Kachorsky (2019) to determine the starting point of the tool here presented. These authors highlighted three recommendations: (1) to assess "beyond the linguistic mode" (p. 18), (2) to explicitly define criteria to include metalanguage, and (3) to incorporate a formative assessment.

A tool to assess the specifics of multimodality on digital storytelling does not exist and our proposal bridges the gap between teachers and assessment practices that go beyond language assessment in the ESP classroom and, more specifically, when recurring to DST. The assessed aspects are ten: (1) vocabulary, (2) adequacy, (3) grammatical accuracy, (4) phonological control, (5) cohesion and coherence, (6) audio-visual design, (7) editing and camera techniques, (8) kinesics, (9) proxemics and (10) collaboration. They all contribute to the evaluation of DST from a wider perspective and taking into account more aspects than the linguistic sphere. Although it seems self-evident, we find it far-reaching to highlight the idea that it is the teacher the one adapting to the level of the students assessed and not the rubric the one adapting to the level. This means that the teacher needs to take into account the level of the students in which the methodology of DST is developed to effectively use the tool here presented.

Each of the assessed aspects included in the proposed tool (excluding collaboration) correspond to the above-mentioned modes that are presented below (Table 3):

Table 3

Assessed aspects and their modes. Source: Adapted from Morell (2015).

Mode used by the speakers	**Features assessed**	**Modality used by the audience**

Spoken	Vocabulary	Auditory
	Adequacy	
	Grammatical accuracy	
	Phonological control	
	Cohesion and coherence	
Written	Vocabulary	Visual
	Grammatical accuracy	
	Adequacy	
Non-Verbal	Audio-visual design	Visual & Auditory
	Camera and editing techniques	
Body	Proxemics	Visual
	Kinesics	

As Table 3 shows, the spoken mode was included in the tool to address aspects related to the use of vocabulary, both general and specialized, the adequacy to the objectives of the DST, the grammatical accuracy of students' discourse, their phonological control, and the cohesion and coherence of their speech. As for the written mode, it has been incorporated to take into account the vocabulary, grammatical accuracy, and adequacy of the text included. The non-verbal mode takes into account the audio and visuals included, as well as the technological techniques used to develop a quality discourse. Finally, the body mode has been considered to assess body language, as well as students' movements. The skills of the students to orchestrate all the modes will determine the degree of multimodality achieved, as well as the degree of success of the tool.

MULTIMODAL ASSESSMENT TOOL				
	EXCELLENT 1 pt.	**GOOD** 0.75 pts.	**FAIR** 0.50 pts.	**POOR** 0.25 pts.
Vocabulary	Wide range of specialized and general vocabulary.	Adequate use of specialized and general vocabulary.	Adequate use of general vocabulary, but limited specialized vocabulary.	Basic and limited lexical repertoire, both general and specialized.
Adequacy	The discourse is appropriate for the communicative purpose. It widely fulfills the objective, and it includes the points requested. The content presented is consistently relevant.	The discourse is adequate for the communicative purpose. It adequately fulfills the objective, and it includes the points requested. The content presented is adequately relevant.	The discourse generally suits the communicative purpose. It fulfills some of the objectives, and it includes some of the points requested. The content presented is adequately relevant.	The discourse does not suit the communicative purpose. It fulfills few of the objectives, and it fails to include some of the points requested. The content presented is not relevant.
Grammatical accuracy	Consistently maintains a high degree of grammatical accuracy; errors are rare and difficult to spot.	Good grammatical control. Occasional "slips" or non-systematic errors and minor flaws in sentence structure may still occur, but they are rare and can often be corrected in retrospect.	Although the message is understood, the discourse includes some simple structures correctly, but still systematically makes basic mistakes (e.g., verb tenses)	Very limited control of simple grammatical structures. It is very difficult to understand the overall meaning of the discourse.
Phonological control	Fully intelligible, it is expressed with relative ease and good fluency. Intonation varies depending on the discourse and is able to place stress correctly.	Pronunciation is clearly intelligible even if a foreign accent is sometimes evident and occasional mispronunciations occur. Intonation is adequate and stress is generally placed correctly.	Pronunciation is generally intelligible, despite the noticeable foreign accent. Intonation is vaguely present in the discourse and stress is, only at times, placed correctly.	Pronunciation is only intelligible for some words. Lack of fluency. Intonation is not present and there is a lack of stress.
Cohesion and coherence	Can develop an argument systematically in well-structured language, taking into account the interlocutor's perspective, highlighting significant points with	Can develop a clear argument, expanding and supporting their points of view at some length with subsidiary points and relevant examples.	Can develop an argument well enough to be followed without difficulty most of the time. Can give a clear, systematically developed discourse, with	It is difficult to follow the discourse because of the scarce use of connectors or reference elements. The discourse is vague, basic and it is difficult to follow the

	supporting examples and concluding appropriately. Can present a complex topic confidently and articulately to an audience unfamiliar with it, structuring and adapting the talk flexibly to meet the audience's needs. Consistent and abundant use of connectors and reference elements.	Can give a clear, well-structured discourse on a complex subject, expanding and supporting points of view at some length with subsidiary points, reasons and relevant examples. Frequent use of connectors and reference elements.	highlighting of significant points, and relevant supporting detail. Fair use of connectors and reference elements.	arguments because of the lack of significant supporting detail and elements.
Audio-visual design	The video includes consistent visual and digital effects that support discourse. Also, they have been included to understand the ideas and with a clear purpose. **Sound** is very clear and very easy to hear and understand. Music is consistently included to support discourse. **Video** is of high quality.	The video includes good visual and digital effects that support discourse. Also, they have been included to understand the ideas and with a purpose. **Sound** is mostly clear and easy to hear and understand. Music is mostly included to support discourse. **Video** is of good quality. Some **editing** techniques have been included: from **transitions** between scenes, to the inclusion of titles and text. **Camera techniques** (e.g., zoom, angles, framing, lightning, backlighting, shots) are mostly present.	The video includes some visual and digital effects that support discourse. Also, some of them have been included to understand the ideas and with a purpose. **Sound** is at times clear and generally easy to hear and understand. Music is sometimes included to support discourse. **Video** is of reasonably good quality. **Editing** techniques have been included: from **transitions** between scenes, to the inclusion of titles and text. **Camera techniques** (e.g., zoom, angles, framing, lightning, backlighting, shots) are sometimes present.	The video includes scarce visual and digital effects, and these do not support discourse. **Sound** is at times not clear and difficult to hear and understand. Music is vaguely included to support discourse. **Video** is of poor quality. **Editing** techniques are scarce: from **transitions** between scenes, to the inclusion of titles and text. **Camera techniques** (e.g., zoom, angles, framing, lightning, backlighting, shots) are vaguely present.
Editing and camera techniques	**Editing** techniques have been consistently and repeatedly included: from **transitions**	**Editing** techniques have been adequately included: from	**Editing** techniques have been generally included: from	**Editing** techniques have been vaguely and poorly included: from **transitions** between

	between scenes, to the inclusion of titles and text. **Camera techniques** (e.g., zoom, angles, framing, lightning, backlighting, shots) are consistently and repeatedly present.	**transitions** between scenes, to the inclusion of titles and text. **Camera techniques** (e.g., zoom, angles, framing, lightning, backlighting, shots) are mostly present.	**transitions** between scenes, to the inclusion of titles and text. Some **camera techniques** (e.g., zoom, angles, framing, lightning, backlighting, shots) have been used.	scenes, to the inclusion of titles and text. Almost no **camera techniques** (e.g., zoom, angles, framing, lightning, backlighting, shots) have been used.
Kinesics	Wide range use of **body language** (arms and hands movements, facial expressions and eye contact) that fully support discourse.	Adequate use of **body language** (arms and hands movements, facial expressions and eye contact) that support discourse.	Good use of **body language** (arms and hands movements, facial expressions and eye contact) that, at times, support discourse.	Vague and poor use of **body language** (arms and hands movements, facial expressions and eye contact).
Proxemics	Wide range use of **physical performance** (movements in space and orchestration) that fully supports discourse.	Adequate use of **physical performance** (movements in space and orchestration) that supports discourse.	Good use of **physical performance** (movements in space and orchestration) that, at times, supports discourse.	Vague and poor use of **physical performance** (movements in space and orchestration).
Collaboration	Teamwork is reflected in every sequence of the video. All the members have equally participated.	Teamwork is reflected in every sequence of the video, but not all the members have equally participated.	Teamwork is reflected in some sequences of the video, but not all the members have equally participated.	Teamwork is slightly reflected, and the members have not participated equally.

Conclusions

The unprecedented crisis caused by the COVID-19 pandemic has created new needs in education related to the online teaching scenarios that educators around the world have had to adapt to. In this paper, we aimed at providing an assessment tool for DST, since it is considered a very relevant technique to enhance students' language skills in the foreign language class. However, up to date, no rubric goes beyond the traditional way of assessing oral skills and that includes the elements that the change to a virtual teaching scenario involves, including multimodal discourse. Before explaining this tool, first of all, we developed a theoretical framework in which we briefly reviewed the most pertinent studies related to our research, and then, we explained the academic context in which our proposal was framed. The methodology to develop the assessment proposal was subsequently described and, finally, the rubric that was proposed was explained in detail. This rubric was based on previous studies and adapted to the characteristics inherent to multimodal discourse. The assessed aspects were the following: (1) vocabulary, (2) adequacy, (3) grammatical accuracy, (4) phonological control, (5) cohesion and coherence, (6) audio-visual design, (7) editing and camera techniques, (8) kinesics, (9) proxemics and (10) collaboration. Taking into account all of this, the proposed tool approaches the assessment of DST from a holistic perspective and goes beyond the traditional evaluation of linguistic aspects, since it includes other variables that are part of the technological requirements of online learning. The innovation of this study is that up to date there is no previous tool that adapts to this new reality and thus we believe it contributes to the online teaching scenario that many educators around the world have had to adapt to due to the COVID-19 pandemic. In this sense, we consider that research in this area can be very helpful for those working in the field of foreign language learning.

Nonetheless, we are aware of the limitations of this paper. First of all, despite the validation of the assessment tool by three experts from the higher education sector, it has to be applied in a real context to demonstrate how useful it is for educators. Moreover, a quantitative pilot research study should be done to compare results in the academic context of our study using the linguistic criteria of the lecturer and the new rubric with multimodal discourse. These would allow us to obtain data on the differences in the grade of students considering all the new aspects of the rubric proposed in this study. Also, the rubric should be used in different courses and at different levels to contrast overall results.

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