

## Teaching Italian as a second language through digital storytelling: Students' perceptions towards *izi.TRAVEL*

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Received 13 November 2021; accepted after revisions 25 February 2022

### ABSTRACT

**EN** The use of technology-enhanced language learning, representing an urgent issue due to the Covid-19 pandemic, has also been promoted by many studies in second language acquisition. Nevertheless, research in this field is only partially developed for the teaching of Italian as a second language (L2) within the university context and for investigating students' perceptions. This article presents an action research project on the use of *izi.TRAVEL*, a website housing more than 15,000 audio guides for touring various sites in cities around the world. The aim of the study is to contribute to developing didactic practices relative to Italian as an L2 through digital storytelling, in order to raise and foster students' linguistic and digital skills. Participants were a small group of students studying Italian as an L2 as part of a master's program at an Italian university. Data were collected through a questionnaire, a focus group, and students' multimodal artifacts. Results show the positive impact of project participation on students' attitudes and perceived learning outcomes, as well as improvements in linguistic, cultural, environmental, and digital competences.

**Key words:** TEACHING ITALIAN AS AN L2, DIGITAL STORYTELLING, IZI.TRAVEL, STUDENTS' PERCEPTIONS, ACTION RESEARCH

**ES** El uso de la tecnología para la adquisición lingüística es promovido por varios estudios, y constituye una cuestión urgente en el contexto de la pandemia del Covid-19. Sin embargo, este tema de investigación se ha desarrollado solo parcialmente respecto a la enseñanza del italiano como L2 en la universidad y a las percepciones del alumnado. En este artículo se presenta un proyecto de investigación-acción sobre el uso de *izi.TRAVEL*, un sitio web que tiene más de 15,000 audioguías para recorrer varios sitios de ciudades de todo el mundo. *Izi.TRAVEL* se implementó con un pequeño grupo de estudiantes de italiano como L2 matriculados en un Máster internacional de una universidad italiana. El objetivo del estudio es desarrollar prácticas didácticas del italiano como L2 a través de la narrativa digital para fomentar las habilidades lingüísticas y digitales del alumnado. Los datos se recogieron a través de un cuestionario, un grupo focal y los productos multimodales del alumnado. Los resultados muestran el impacto positivo de la participación en el proyecto en las actitudes del alumnado y en sus resultados de aprendizaje percibidos, así como mejoras en sus competencias lingüística, cultural, ambiental y digital.

**Palabras clave:** ENSEÑAR ITALIANO L2, NARRATIVA DIGITAL, IZI.TRAVEL, PERCEPCIONES DE LOS ESTUDIANTES, INVESTIGACIÓN-ACCIÓN

**IT** L'uso delle tecnologie per l'apprendimento linguistico è promosso da diversi studi e si è andato imponendo come questione urgente nel contesto della pandemia Covid-19. Tuttavia, in quest'ambito risultano ancora scarsi gli studi sulla didattica dell'italiano L2 nel contesto universitario e dalla prospettiva degli studenti. Su queste basi, nell'articolo si presenta un progetto di ricerca-azione riguardante l'uso di *izi.TRAVEL*, un sito web che contiene più di 15,000 audioguide per visitare le città di tutto il mondo. Il progetto è stato pilotato con un piccolo gruppo di apprendenti di italiano L2 iscritti in un Master internazionale di un'università italiana. L'obiettivo dello studio è quello di contribuire allo sviluppo di pratiche didattiche sull'italiano L2 attraverso il *Digital Storytelling* per promuovere le competenze linguistiche e digitali degli apprendenti. I dati sono stati raccolti attraverso un questionario, un *focus group* e i prodotti multimodali degli studenti. I risultati rivelano che l'impatto della partecipazione nel progetto sugli atteggiamenti degli/delle apprendenti e sui risultati dell'apprendimento percepiti è stato positivo poiché migliorano le competenze linguistiche, culturali, ambientali e digitali.

**Parole chiave:** INSEGNARE ITALIANO L2, DIGITAL STORYTELLING, IZI.TRAVEL, PERCEZIONI DEGLI STUDENTI, RICERCA-AZIONE

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## 1. Introduction

The development of the younger generation's linguistic, digital, and intercultural skills is one of the priorities of the European Union (EU). According to the Policies of Multilingualism<sup>1</sup> and Innovation in Education<sup>2</sup>, the EU supports initiatives regarding language learning and digital media aimed at fostering the development of linguistic diversity, digital literacy, and innovative pedagogical practices in the educational system. In particular, the Council *Conclusions on Multilingualism and the Development of Language Competences* promote plurilingualism and intercultural dialogue (Council of Europe, 2014); the *Digital Education Action Plan (2021-2027)* defines guidelines for a high-performing digital ecosystem in education (European Commission, 2020); and the *2030 Agenda for Sustainable Development Goals* includes the achievement of quality education (United Nations, 2015). Moreover, the use of technology-enhanced language learning represents an urgent issue, since the Covid-19 pandemic compels us to rethink education from a digital perspective. Therefore, it is essential to develop epistemological reflections and methodological proposals that encourage the use of information and communication technologies (ICT) for the teaching of Foreign and Second Languages (FL/L2).

Within this framework, several studies proved the linguistic, technological, and intercultural benefits of using Digital Storytelling (DST) for second language acquisition (SLA) (Jamissen, Hardy, Nordkvelle, & Pleasants, 2017; Lambert & Hessler, 2018). DST is an effective learning tool, since it enhances students' communicative skills by inviting them to design, create, and present digital stories. It further develops their information, visual, and technology literacy by asking them to incorporate data, communicate through images, and digitise media content (Robin, 2006). Moreover, DST reinforces students' interpersonal abilities through group work involving different ethnic backgrounds, with students sharing and negotiating ideas (Benick, 2012; Trimboli, 2020).

To date, DST research has centered on the experimentation of digital tools for SLA connected to urban spaces, the use of literary texts, university students' perceptions, and the analysis of their multimodal artifacts. DST can be integrated with the didactic use of Linguistic Landscape, which represent the urban signs of a territory. They can be integrated since it enhances language acquisition, reflections on the interactions between the messages and the context, and the knowledge of a given geographic area (Malinowski, 2015; Shohamy & Gorter, 2009). In addition, the combination of DST and literature in the FL/L2 classroom promotes students' linguistic, digital, and intercultural skills by using ICT as literary multimodal devices for teamwork (Maddin, 2014), especially within outdoor lesson plans based on literary texts (Bataller, 2013). Finally, investigations into students' digital stories and perceptions on the use of DST for SLA have revealed stronger motivation, improved vocabulary, grammar, and oral proficiency, an increased autonomy in the writing process, and a stronger sense of community (Chiang, 2020; Herrera Ramírez, 2013; Pascual Lence, 2013; Kallinikou & Nicolaidou, 2019; Lee, 2014; Raffone & Monti, 2019; Towndrow & Kogut, 2020).

Studies on the use of DST for SLA carried out in Italy have dealt primarily with nursery and primary school students (Bertolini, 2017; Corio & Pacifico, 2019; Zini, Contini, Bertolini, & Manera, 2020), as well as with university students of English and Italian as a FL (Raffone & Monti, 2019; Sottilotta & Cannamela, 2019). However, research on students' perceptions and multimodal artifacts of DST in the university context is still underexplored. Moreover, studies on linguistic landscape have investigated the relationship between Italian and the other languages of the urban scene involving international university students (Bagna, Gallina, & Machetti, 2018), but did not involve digital media. Finally, research combining Italian as an L2, literature, and DST is limited, and research on *izi.TRAVEL*, a website housing more than 15,000 audio guides for touring various sites in cities around the world, have focused on its potentialities for cultural heritage promotion (Bonacini, 2018) while ignoring the benefits for SLA.

Against this backdrop, the article illustrates a project aimed at fostering the linguistic and digital skills of students aged 20-30 by developing didactic practices in the teaching of Italian as an L2 through DST. Due to the Covid-19 pandemic, it was not possible to organise outdoor lesson plans either connected to the urban signs of a territory or based on literary texts. Thus, in line with the EU priorities and in order to contribute to the above-mentioned gaps, I developed a classroom-based research project that combined the experimentation of *izi.TRAVEL*, the reading of a literary text set in an Italian city, and inquiry into students' perceptions. On this basis, the article will first consider the conceptual underpinnings of using DST for SLA, and explore the linguistic and technological benefits of using *izi.TRAVEL*. Second, it will present an action research project dealing with the teaching of Italian as an L2 through *izi.TRAVEL* that has been piloted with a small group of international

<sup>1</sup> <https://education.ec.europa.eu/focus-topics/improving-quality-equity/multilingualism>

<sup>2</sup> <https://education.ec.europa.eu/education-levels/higher-education/innovation-in-education>

university students. Third, it will analyse and discuss the data collected through a questionnaire, a focus group, and students' multimodal artifacts in order to understand the impact of project participation on students' attitudes and perceived learning outcomes. Although the reduced sample size and the single-class study limit the broader applicability of the conclusions, the findings confirm the innovative aspects of the pedagogical approach, and they suggest lines of research to be investigated in the future.

## **2. The conceptual underpinnings**

The conceptual underpinnings of DST for SLA include the evolution of the concepts of literacy and multimodality, together with the task-based approach. On the one hand, the gradual advancement of ICT, which has been further stimulated by the current pandemic situation, has progressively welded daily communication to the digital environment. Within the educational system, this has led to the evolution of the concept of literacy (from a single to a plural definition), and to the reconsideration of digital literacies and multimodality in L2 instruction in the context of Covid-19 (Borro, Conti, & Fiorenza, 2021; Conti, 2021). On the other hand, DST adheres completely to both the objectives and the structure of the task-based approach to FL/L2 learning.

### ***2.1. Digital literacies and multimodality in second language instruction***

In the last decades, literacy has broadened from its traditional and single definition, corresponding to the ability to read and write, to the new, plural terms of "multiliteracies" and "new literacies," involving a wider set of practices (Chiang, 2020; Lam, 2004). In an increasingly globalised and digitised world, the notion of 'multiliteracies' include both linguistic and other semiotic resources (such as films, posters, and paintings) to represent visual, audial, gestural, spatial, and tactile elements of communication (Lotherington & Jenson, 2011). The term 'new literacies' includes the use of multiple modes of communication and digital media (such as social platforms, fan fiction, and videogames) through the development of technology-mediated literacy practices (Warner & Dupuy, 2018). In this respect, the use of literary texts in the FL/L2 classroom adds an important poetic and sensory element, since it fosters the improvement not just of linguistic and literary skills, but also of environmental awareness and digital competence. For example, literature can deal with ecological issues, interact with the social and cultural context, and raise environmental consciousness (Iovino, Cesaretti, & Past, 2018). Moreover, ICT not only serves as literary tools, reproducing and disseminating the written texts and its adaptations (such as movies and songs), but, above all, works as literary multimodal devices (Hetland, 2016). To sum up, in contemporary times, a comprehensive notion of literacies corresponds to the "ability to read and write at a level whereby individuals can effectively understand and use written communication in all media (print or electronic), including digital literacy" (Valtin et al., 2016, p. 3). Within this context, digital literacies represent 21<sup>st</sup> century literacy (Brown, Bryan, & Brown, 2005) which is defined as "the ability to understand media (as most mediums are digitalized), to search and think critically about retrievable information (with the widespread use of the Internet) and be able to communicate with others through a variety of digital tools and applications" (Ferrari, 2012, p. 16). As a result, becoming literate in an L2 means developing linguistic, cognitive, and technical competences to find, understand, select, create, and share information using ICT.

According to recent research, digital literacies, multimodality, and DST are closely connected (Chiang, 2020; Robin, 2016; Thang et al., 2014). DST is a multi-literacy approach that renewed the traditional storytelling process by introducing the use of digital tools and resources to combine text, images, and sound with the aim of supporting the educational process (Lambert & Hessler, 2018). First of all, DST fosters the teaching of media literacies. In fact, it strengthens various aspects of literacies, such as writing, organization, and interpersonal skills in defining and presenting a personal point of view in a script, managing the overall aspects of the project (materials, time, tasks), and cooperating with classmates (Ohler, 2008; Robin, 2006). Moreover, international studies promote the use of DST as an effective learning tool for SLA, since it encourages students' motivation, the achievement of linguistic and rhetorical gains in listening, written and oral production, cultural debate development, and multimodal creativity (Castañeda, 2013; Oskoz & Elola, 2016; Sadik, 2008; Vinogradova, Linville, & Bickel, 2011). With respect to this, Oskoz and Elola (2016) stated that "the development of new digital literacies is at the heart of many current Digital Storytelling studies" (p. 165). Lotherington and Jenson (2011) affirmed:

Literate engagement in the interactive, multimodal genres created in digital space engages the participant in dynamic, multidimensional communication, (potentially) involving social interaction, haptic activation, physical coordination, visual design, modal complexity (e.g.,

multiple language engagement, musical accompaniment, and animation), dynamic, collaborative text construction, and alphabetic literacy (pp. 227-228).

Finally, Ohler (2008) wrote that DST is the perfect vehicle to integrate traditional and emerging literacies:

With DST, good old-fashioned, clear, expository writing is the key. (...) DST also involves, whenever possible, other literacies such as art and speaking, as well as writing and digital production. The actual digital story is the tip of the iceberg, below which are a number of artifacts that can be used to assess traditional literacy, including planning documents, scripted narratives, treatments, story tables, storyboards, and self-assessments, as well as music, art, recorded oral presentations, and other prized examples of student work (p. 12).

## **2.2. The task-based approach for digital storytelling**

A task involves a series of different problem-posing activities that require students to use various cognitive and communicative procedures (oral and written comprehension, production, manipulation, and interaction) in the FL/L2 in order to express meaning, as they would do in the real world (Ellis, 2003; Nunan, 2004). According to Ellis (2009), a FL/L2 task should include the following features:

- The primary focus should be on 'meaning' (by which it is meant that learners should be mainly concerned with processing the semantic and pragmatic meaning of utterances).
- There should be some kind of 'gap' (i.e., a need to convey information, to express an option or to infer meaning).
- Learners should largely rely on their own resources (linguistic and non-linguistic) in order to complete the activity.
- There is a clearly defined outcome other than the use of language (i.e., the language serves as the means to achieving the outcome, not as an end in its own right) (p. 223).

In line with this, the final product of DST are digital stories (DS) that combine text, images, and sound to convey different meanings, dealing with personal, historical, and socio-political issues, that engage students in both traditional and innovative ways (researching, writing, interviewing, as well as using graphics, animation, and music) (Oskoz & Elola, 2016).

As for the structure, the task-based approach is divided into the main sequential phases of:

- 1) Pre-Task: presenting the topic, the objectives, the expected results, the work methods, and the linguistic and non-linguistic processes required to complete the task.
- 2) Task: developing the task by working individually, in pairs, and in groups, and by presenting it to the classroom.
- 3) Post-Task: focusing on FL/L2 specific forms that emerged in the previous phases (Willis, 1996).

In accordance with this, DST projects are generally structured into the consecutive stages of:

- 1) Content development: collecting information (interviews, journals, websites).
- 2) Written text: focusing on grammar, vocabulary, coherence, cohesion.
- 3) Images: gathering and analysis of images.
- 4) Oral text: rehearsing the pronunciation.
- 5) Technology training: learning to use the DS software, audio, and images softwares, analysis of DS.
- 6) In-class presentation: presenting the final DS (Oskoz & Elola, 2016, p. 161).

## **3. Using *izi.TRAVEL* for second language acquisition through digital storytelling**

*izi.TRAVEL* is a free DST platform to create both indoor and outdoor audio guides, for a museum and a city tour respectively. It does not require specialised technical knowledge or hardware, except for a personal

computer, a smart phone, and an internet connection. The procedures for using this platform are explained in a simple and intuitive manner in the *izi.TRAVEL* official website<sup>3</sup> and YouTube account<sup>4</sup>.

### 3.1. *izi.TRAVEL, digital literacies, and multimodality*

Using *izi.TRAVEL* in DST projects for SLA contributes to developing the wide variety of skills included in the current multi-faceted notion of literacies (Lee, 2014; Oskoz & Elola, 2016). The connection between the need to support digital literacies and multimodality in L2 instruction and the learning objectives of using *izi.TRAVEL* in DST projects for SLA is shown in Table 1.

Table 1  
*izi.TRAVEL: Literacies and learning objectives*

Literacies	Learning objectives of <i>izi.TRAVEL</i>
Research skills	- Identifying the aims and the content of the audio guide
Organisation skills	- Managing the time to create the audio guide - Selecting and synthesising information - Producing the materials
Presentation skills	- Finding the best way to present the digital story
Language skills	- Writing the scripts - Reading the scripts aloud - Reading or listening to peers' short stories - Speaking about one's own multimodal artifact: presenting it or sharing it as a group work
Technology skills	- Using the digital tool to digitise content - Using other digital recording audio programs and cameras to digitise content - Using editing applications - Communicating with the digital community
Creativity skills	- Developing critical thinking skills - Training problem-solving abilities - Integrating personal elements in the multimodal artifacts
Assessment skills	- Gaining experience in self-evaluation - Gaining experience in peer-evaluation
Interpersonal skills	- Working individually, in pairs, and in groups - Enhancing interaction abilities: respecting roles, asking questions, listening to each other, expressing ideas, constructing common narratives - Increasing the sense of community

To train interpersonal skills, students can work either individually or collectively according to the personal or cultural purposes of their multimodal artifacts. Nevertheless, the two approaches can also be integrated by alternating plenary discussions and individual work aimed to reach a shared objective, the final digital product.

### 3.2. *izi.TRAVEL and the task-based approach*

Creating an audio guide with *izi.TRAVEL* requires implementing a process-oriented approach to guide students through their training in multimodal skills. The correspondence between the task-based approach in L2 instruction and the steps to create an audio guide with *izi.TRAVEL* are presented in Table 2.

Table 2

<sup>3</sup> <https://izi.travel/en>

<sup>4</sup> <https://www.youtube.com/channel/UCvidztWMbxuJ3hArkZlAlhg>

*izi.TRAVEL: Stages and tasks*

Stage	Tasks to create an audio guide with <i>izi.TRAVEL</i>
1) Planning	<ul style="list-style-type: none"> <li>- Choosing the type of audio guide to produce</li> <li>- Selecting the exhibits in a museum or the points of interest of a city</li> </ul>
2) Writing stories	<ul style="list-style-type: none"> <li>- Writing short, colloquial, and easily readable scripts</li> <li>- Associating the scripts with the selected items or places</li> </ul>
3) Recording audio	<ul style="list-style-type: none"> <li>- Recording the scripts by using a default recording program on a smart phone</li> <li>- Reading the scripts aloud in a place without echo or background noise</li> <li>- Transferring the files to a computer</li> <li>- Editing the file by using free digital programs (such as <i>Audacity</i>)</li> </ul>
4) Making images	<ul style="list-style-type: none"> <li>- Taking original photographs to associate with the selected objects or places</li> <li>- Transferring the photographs to a computer</li> <li>- Using the photographs for every item or location</li> </ul>
5) Registration	<ul style="list-style-type: none"> <li>- Registering on the <i>izi.TRAVEL</i> platform: indicating personal details, accepting license terms and conditions, and setting the password</li> </ul>
6) Audio guide creation	<ul style="list-style-type: none"> <li>- Choosing between a museum and a city tour</li> <li>- Entering general information (the museum or city tour name, country, the guide language etc.)</li> <li>- Including a short description of the audio guide, the audio recording of the script, and one or more photographs</li> <li>- Uploading the whole set of data (scripts, audio, images) to the platform</li> </ul>

When creating an audio guide with *izi.TRAVEL*, it is essential that the written stories are short (maximum length: half a page), written in a colloquial language, and easy to read to gain users' attention and keep them involved. Moreover, the pictures should be original photographs to avoid any copyright issues. Finally, the visibility of the audio guides can be either accessible to everyone or reserved for the authorised users. Users can enter the tour through a password that automatically generates when choosing this option.

#### 4. The project, "Venice is..."

Following the conceptual underpinnings of using DST for SLA and the teaching potentialities of *izi.TRAVEL*, I designed and implemented a project to enhance students' multiliteracy skills in Italian as an L2 by creating a digital city tour of Venice. The project, entitled "Venice is...", followed the structure of the task-based approach. It was divided into the sequential stages of a traditional DST project, and required the use of *izi.TRAVEL* in most of its phases. The purpose was to train students in the whole set of skills defining the current notion of literacies through the design, the creation, and the presentation of their multimodal artifacts referred to the city they were living in.

##### 4.1. The context

I carried out the project with a small group of international university students of intermediate level in Italian enrolled in the master's in Management of Cultural Assets and Activities (MaBAC) at Ca' Foscari University of Venice. During the 1<sup>st</sup> semester of the A. Y. 2020-2021, the students attended a 44-hour course of Italian as an L2 with me as the teacher, organised in collaboration with the Dante Alighieri Society of Venice. In total, 20 hours have been dedicated to implementing the project.

In normal circumstances, this course fosters language and culture acquisition within formal and informal contexts, such as visiting the Venetian museums. Due to the Covid-19 pandemic, it has not been possible to organise either Italian as an L2 activities to be taken part in combination with the museum visits (Sederberg, 2013), or language and cultural itineraries through Venice by exploiting the didactic potentialities of the Linguistic Landscape approach (Bagna, Gallina, & Machetti, 2018; Malinowski, 2015;), and of the literary texts associated with the territory (Bataller, 2013).

I, therefore, decided to design and implement a project aimed at SLA through DST. The project was called "Venice is..." because it dealt with both the reading of some extracts of *Venice is a Fish: A Cultural Guide*<sup>5</sup> by Tiziano Scarpa (2000) and the use of *izi.TRAVEL* to re-interpret the literary text from students' perspectives. Students created a digital tour of Venice, which promotes student-centered learning. After reading about Venice in a literary text, students uploaded their multimodal artifacts associated with the Venetian places they visited and experienced. The purpose was to develop their narrative skills, improve awareness of multimedia content and resources, and train digital competences.

In line with the potentialities of using literature in the L2 classroom, the choice of *Venice is a Fish: A Cultural Guide* as a starting point aimed at motivating students to discover the tangible and intangible heritage of Venice and to connect with the surrounding landscape. Considering the didactic context, among the several books on the city (such as *Watermark* by Iosif Brodskij, 1989; *A Sentimental Guide to Venice* by Diego Valeri, 1997; and *Venice: The Lion, the City and the Water* by Cees Nooteboom, 2020), I selected Tiziano Scarpa's book because it describes the city through a series of physical and emotional experiences associated with different parts of the body (feet, legs, heart, hands, etc.), using an ironic tone, and from a local point of view.

#### 4.2. Project design and implementation

The project developed throughout 10 lessons, 2 hours each (plus extra-lesson time for homework and the outreach event). It was divided into 9 sequential stages connected with multiple tasks and it pursued various learning objectives, in accordance with the above-mentioned conceptual and pedagogical frames. The connections between these central aspects of the project design and implementation are shown in Table 3.

Table 3

*The project "Venice is..."*

Lessons	Stages	Tasks	Learning objectives
1	1) Introduction	<ul style="list-style-type: none"> <li>- Identifying the characteristics of <i>Venice is a Fish: A Cultural Guide</i></li> <li>- Identifying the features of the descriptive genre</li> <li>- Becoming familiar with <i>izi.TRAVEL</i></li> </ul>	<ul style="list-style-type: none"> <li>- Understanding the aims and the content of the project</li> <li>- Working in groups</li> </ul>
2-7 (also as homework)	2) Content development	<ul style="list-style-type: none"> <li>- Reading a selection of excerpts of <i>Venice is a Fish: A Cultural Guide</i></li> </ul>	<ul style="list-style-type: none"> <li>- Reading and understanding a literary text</li> <li>- Developing critical thinking skills</li> <li>- Working in groups</li> </ul>
	3) Written text	<ul style="list-style-type: none"> <li>- Choosing Venetian places or elements connected to the five senses</li> <li>- Writing the scripts by describing the Venetian places or elements</li> <li>- Uploading the scripts within the <i>Moodle</i> platform of the course to be corrected</li> </ul>	<ul style="list-style-type: none"> <li>- Selecting and synthesising information</li> <li>- Developing critical thinking skills</li> <li>- Writing the scripts</li> <li>- Integrating personal elements in the multimodal artifacts</li> <li>- Working individually</li> </ul>
	4) Images	<ul style="list-style-type: none"> <li>- Taking original photographs of the Venetian places or elements</li> <li>- Transferring the photographs to a computer</li> <li>- Associating the photographs with the Venetian places or elements</li> </ul>	<ul style="list-style-type: none"> <li>- Producing the materials: photographs</li> <li>- Using digital cameras to digitise content</li> <li>- Using editing applications</li> <li>- Integrating personal elements in the multimodal artifacts</li> <li>- Working individually</li> </ul>
	5) Oral text	<ul style="list-style-type: none"> <li>- Reading the scripts on sight, taste, touch, and smell senses aloud</li> <li>- Recording four audios on sight, taste, touch, and smell with the smartphone audio recording program</li> </ul>	<ul style="list-style-type: none"> <li>- Producing the materials: audio files</li> <li>- Reading the scripts aloud</li> <li>- Using digital recording audio programs to digitise content</li> <li>- Integrating personal elements in the multimodal artifacts</li> </ul>

<sup>5</sup> Italian original title: Scarpa, Tiziano (2000). *Venezia è un pesce: Una guida*. Milano: Feltrinelli.

		<ul style="list-style-type: none"> <li>- Recording original sounds of the Venetian places or elements on the hearing sense</li> <li>- Recording one audio on hearing with the smartphone audio recording program</li> <li>- Transferring the audios to a computer</li> <li>- Associating the audios with the Venetian places or elements</li> </ul>	<ul style="list-style-type: none"> <li>- Working individually</li> </ul>
8	6) Technology training	<ul style="list-style-type: none"> <li>- Registering on the <i>izi.TRAVEL</i> platform</li> <li>- Choosing a city tour</li> <li>- Entering general information</li> <li>- Including a short description of the digital tour</li> <li>- Uploading the multimodal artifacts to the <i>izi.TRAVEL</i> platform</li> </ul>	<ul style="list-style-type: none"> <li>- Using the digital tool to digitise content</li> <li>- Managing the time to create the audio guide</li> <li>- Finding the best way to present the digital story</li> <li>- Developing critical thinking skills</li> <li>- Training problem-solving abilities</li> <li>- Working in groups</li> </ul>
9	7) In-class presentation	<ul style="list-style-type: none"> <li>- Presenting the digital tour on <i>izi.TRAVEL</i></li> <li>- Discussing the digital tour on <i>izi.TRAVEL</i></li> </ul>	<ul style="list-style-type: none"> <li>- Finding the best way to present the digital story</li> <li>- Reading or listening to peers' short stories</li> <li>- Speaking about one's own multimodal artifact by presenting it</li> <li>- Developing critical thinking skills</li> <li>- Gaining experience in self-evaluation</li> <li>- Gaining experience in peer-evaluation</li> <li>- Working in groups</li> <li>- Enhancing interaction abilities</li> <li>- Increasing the sense of community</li> </ul>
Extra-lesson time	8) Outreach event	<ul style="list-style-type: none"> <li>- Participating in an online public seminar</li> <li>- Presenting the digital tour on <i>izi.TRAVEL</i></li> <li>- Interviewing Tiziano Scarpa</li> </ul>	<ul style="list-style-type: none"> <li>- Finding the best way to present the digital tour</li> <li>- Speaking about the digital tour by sharing it as a group work</li> <li>- Working in groups</li> <li>- Enhancing interaction abilities</li> <li>- Increasing the sense of community</li> </ul>
10	9) Conclusion	<ul style="list-style-type: none"> <li>- Discussing the outreach event</li> <li>- Discussing the whole project</li> </ul>	<ul style="list-style-type: none"> <li>- Developing critical thinking skills</li> <li>- Working in groups</li> <li>- Enhancing interaction abilities</li> <li>- Increasing the sense of community</li> </ul>

At the beginning (stage 1, lesson 1), I introduced the project's themes and objectives to the students. I presented Tiziano Scarpa's book and the features of the descriptive genre. Moreover, I introduced *izi.TRAVEL* platform and some audio guides from its free and vast audio guide collection in order for students to become familiar with the tool, understand its purposes, and explore its potentialities.

Regarding content development (stage 2, lessons 2-7), students' read some extracts of *Venice is a Fish: A Cultural Guide* focusing on the description of the city through the five senses. The readings corresponded to the introduction of the book and some excerpts of the chapters "Hands," "Ears," "Mouth," "Nose," and "Eyes." Every lesson was dedicated to exploring one of the five senses at a time. Thus, the title of the project was adapted according to the different focus (lesson 2: "Venice is touch," lesson 3: "Venice is hearing," and so on). The activities were divided into pre-during-after reading phases (Balboni, 2018), aimed at: exploring students' previous knowledge and impressions about Venice; verifying their global reading comprehension; verifying their analytical comprehension, focused especially on vocabulary; stimulating their personal interpretation of the five senses associated with the city.

Concerning the written text (stage 3, lesson 2-7 plus homework), after reading a selected extract of the book, students were asked to choose and describe a Venetian place or element that they personally

experienced, that particularly stimulated their senses under analysis. The criteria for creating short stories were the following:

- around 250–300-word length
- written in the first-person narrative
- specify the Venetian place and element
- express personal points of view and emotional content
- include good Italian grammar, vocabulary, and language use.

The writing of each short story started in the classroom and continued as homework. Besides respecting the features of the descriptive genre, students followed the main phases of the creative writing process. In the first phase, conceptualization, students identified the whole set of ideas connected to a topic. For the organisation phase, they selected the ideas that have emerged and defined an outline. In the completion stage, students wrote the short story (Guerriero, 2021).

With respect to images (stage 4, homework of lessons 2-7), during the weeks they had been producing the written texts, students were asked to walk around Venice, be inspired by observing the city, and take at least one photograph to represent every sense.

Concerning the oral text (stage 5, homework of lessons 2-7), after correcting the written texts and adding more images to illustrate them better, students practiced performing the audio recordings of their short stories, paying attention to the clarity of their voices. I directly assessed the quality of their recordings as the teacher. Students recorded four audios of themselves reading the scripts on the four senses of sight, taste, touch, and smell. For the hearing sense, students recorded the original sounds of the elements they described to achieve a more realistic rendering.

Regarding the technology training (stage 6, lesson 8), students received basic instructions regarding how to use the tools to upload their multimodal artifacts (combining text, images, and audios/sounds) on the *izi.TRAVEL* platform and create a communal digital tour.

During the in-class presentation (stage 7, lesson 9) students collaboratively presented their digital tours, sharing their five multimodal artifacts following the path within the city map.

With respect to the outreach event (stage 8, extra-lesson time), students had the opportunity to share their digital tour with an outside audience of specialists in the Italian language, including Tiziano Scarpa. Concurrently with the design and the implementation of the project "Venice is...", the latest edition of the Venetian author's book was published<sup>6</sup>. After receiving Tiziano Scarpa's positive response to participating as a special guest, I designed and organised an online public seminar that took place on 15<sup>th</sup> January 2021 within the *Zoom* platform, in collaboration with the Dante Alighieri Societies of Venice and Miami as well as with Ca' Foscari University of Venice and the Florida Atlantic University. The outreach event aimed to present both the latest edition of Tiziano Scarpa's book and the students' digital tour, of which some significant examples associated with the five senses were shown. In the last part of the seminar, students interviewed the writer regarding, for example, his sources of inspiration, his relationship with the city, and life in Venice during the Covid-19 pandemic. The video of the event is available at the YouTube account of the Dante Alighieri Society of Venice<sup>7</sup>.

To conclude the project (stage 9, lesson 10) students discussed the event and their overall experience.

## 5. The research

The aim of the study was to understand the impact of project participation on students' attitudes and perceived learning outcomes in order to develop didactic practices for the teaching of Italian as an L2 through DST aimed at raising and fostering students' linguistic and digital skills. The two research questions (RQ) were:

RQ1: What impact does project participation have on students' attitudes towards both SLA and DST?

RQ2: What impact does project participation have on students' perceived learning outcomes?

The purpose of RQ1 was to explore students' attitudes towards the project. In particular, it aimed at understanding how they considered the reading, writing, and digital tasks. The objective of RQ2 was to

<sup>6</sup> Italian original title: Scarpa, Tiziano (2020). *Venezia è un pesce: Una guida nuova*. Feltrinelli.

<sup>7</sup> <https://www.youtube.com/watch?v=1NTdibNlt9A>

investigate what students thought they had learned from the project. It especially aimed at understanding whether and to what extent they would identify learning gains regarding their knowledge and competencies in both Italian as an L2, and the use of digital tools.

### **5.1. Participants**

The project involved 12 university students (n=11 female, n=1 male), aged 20-30 (n=9 aged 20-25, n=3 aged 26-30), and speaking French as a mother tongue (n=10) or as an L2 (n=2, for whom Russian was the mother tongue). Students had a heterogeneous educational background regarding the study of Italian since they had studied it for less than 1 year (n=5), 2-3 years (n=4), 4-5 years (n=1), and more than 5 years (n=2). Nevertheless, the results of the entry test attested their intermediate level (B1-B2 of the CEFR). On the one hand, students were highly motivated to improve their Italian to enhance their performances in the other Master courses. They all knew other Romance languages besides French. Students who had studied Italian for a shorter period attended intensive Italian courses before moving to Venice, while those who had studied it for a longer period did not practise it at length before starting the Masters program.

### **5.2. Methods**

The study followed the constructivist paradigm, since it focused on local, specific, and experientially based co-constructed realities (Creswell, 2014; Hatch, 2002). The methodology used for this research was an action research project because I was actively involved as the teacher. One of the main features of this methodology is the link between research and teaching aimed at improving practice (Dörnyei, 2007). The study also reflected other essential principles of action research, such as: the problem-solving function; the development within a small-scale and localised context; the impossibility of generalising results, although they could be useful for those who teach and learn in similar contexts; the understanding of the processes of change; the contribution of the practical experience to theoretical reflections (Coonan, 2000). The action research process was based on a spiral circle divided into the following stages: identifying the problem; reflecting on solutions; choosing a type of intervention; planning, implementing, monitoring, and recording; reviewing and evaluating; understanding how the intervention solved the problem (Cohen, Manion & Morrison, 2011). Shortly after the start of the course, the museums applied restrictions to group visits due to the worsening of the Covid-19 emergency. Therefore, I immediately devised new activities aimed at promoting the study of both the Italian language and the Venetian cultural heritage through digital resources. I planned the stages of the project – except for the outreach event, which was added in a later stage – and I implemented it. I monitored students' reactions and involvement during the reading of the literary text and the creation of their multimodal artifacts. Thus, I gradually refined the linguistic and digital activities according to students' interests and time management.

#### **5.2.1. Data collection**

To achieve a comprehensive picture of the research context, a mixed methodology design was chosen (Mertens, 2007). Both quantitative and qualitative data were collected through multiple data collection strategies, i.e., questionnaires, focus groups, and students' multimodal artifacts, and according to a sequential process (Dörnyei, 2007). A questionnaire was followed by a focus group and the analysis of students' digital stories in order to complete the quantitative results through the qualitative ones (Baldry, 2013). The quantitative data were collected through the closed-ended questionnaire items, while the qualitative data came from the open-ended questionnaire items, the focus group, and students' materials.

Both the questionnaire and the focus group data were collected at the end of the project (lesson 10), while students' multimodal artifacts were saved throughout its development (lessons 2-8).

##### **5.2.1.1. Questionnaire**

The questionnaire (see Appendix A) was anonymous and paper based. It included 17 items and was divided into three sections. The first section aimed at answering RQ1. It corresponded to items 1-6, and it explored the impact of project participation on students' attitudes. It focused on students' rating of the overall project, the outdoor activities, the comprehension of the literary text, the production of the writing activities, and the use of *izi.TRAVEL*. The second section aimed at answering RQ2. The questions coincided with items 7-14, and it investigated the impact of project participation on students' perceived learning outcomes. It examined the enhancement of students' linguistic, cultural, environmental, and digital skills. The third section aimed at collecting students' general information, and it included items 15-17. The responses are presented

above in Section 5.1. The majority of the items of sections 1-2 was closed-ended. The item types included Likert scales (items 1-2a, 3a, 4-6, 8, 12-14a), numerical rating scales (item 7), and yes-no items (item 11). Conversely, the remaining items were open-ended. The item types included clarification questions (items 2b, 4b, 14b), and specific open questions (items 9-10) (Dörnyei, 2010). The questionnaire was administered to 11 students on 14<sup>th</sup> December 2020, and to 1 student on 16<sup>th</sup> December 2020. The average time for completing the questionnaire was 15 minutes.

### 5.2.1.2. Focus group

The focus group included 6 questions (See Appendix B), and it aimed at examining the impact of project participation on students' attitudes and perceived learning outcomes. The purpose was to better interpret the previously collected quantitative data. In fact, items 1-3 aimed at answering RQ2, whereas items 4-6 aimed at answering RQ1. The focus group structure included an introductory question regarding previous similar experiences (item 1); a transition question dealing with the expectations of the project (item 2); central questions concerning the usefulness of the project, what interested the students and what they did not like (items 3-4); and concluding questions regarding future applications and possible additions (items 5-6) (Baldry, 2013). The focus group was conducted with 9 students on 13<sup>th</sup> January 2021 (3 students were absent). It was recorded with an audio recorder, and it lasted almost 40 minutes.

### 5.2.1.3. Students' multimodal artifacts

Students' multimodal artifacts referred to five different topics corresponding to their perceptions of the five senses in Venice. Each student wrote 5 scripts, to which they related one audio file and at least one photograph. In total, students' multimodal artifacts consisted of 60 written texts, together with at least 60 oral texts and 60 images. The multimodal artifacts were produced and refined during the development of the project. They were presented in the communal digital tour of Venice both within the classroom dimension and in the outreach event.

### 5.2.2. Data analysis

To analyse the qualitative data of the open-ended questionnaire items, the focus group, and students' multimodal artifacts, I followed the content analysis procedure (Creswell, 2014) and I used the *NVivo* software (Bazeley & Jackson, 2013). First, I transcribed data as an *Excel* spreadsheet (open-ended questionnaire items) and as a *Word* document (focus group and multimodal artifacts). Second, I transferred the documents to *NVivo* to organise and prepare data for analysis. Third, I read through all data several times and divided them into separate codes. Finally, I merged and reduced the codes into broader and relevant topics.

To analyse quantitative data of the closed-ended questionnaire items, I used descriptive statistic techniques (Dörnyei, 2010). After assigning identification codes to each questionnaire, I coded data, transcribed it in an *Excel* spreadsheet, and represented the most interesting findings through tables and graphs.

## 6. Results

Findings will be presented according to the research questions, dealing with the impact on students' attitudes (RQ1) and perceived learning outcomes (RQ2).

### 6.1. Impact on students' attitudes

To answer RQ1 (*What impact does project participation have on students' attitudes towards both SLA and DST?*), data from the questionnaire (items 1-6), and the focus group (items 4-6) were used.

#### 6.1.1. Questionnaire

Students' overall perceptions of the project "Venice is..." were positive, since they found it very interesting (60%), and quite interesting (40%) (item 1: *How do you rate the overall project?*). This initial data confirmed the function of DST as an effective learning tool regarding the increased motivation for SLA.

In particular, the outdoor activities were judged favourably, as students considered them very interesting (75%), and quite interesting (17%) (item 2a: *How do you rate the outdoor activities aimed at the direct observation of the city?*). To justify their answers, students referred equally to the link between the Italian language and the city (25%), the diversity of the experience (25%), and the entertainment generating inspiration (25%) (item 2b: *Why?*, Fig. 1).

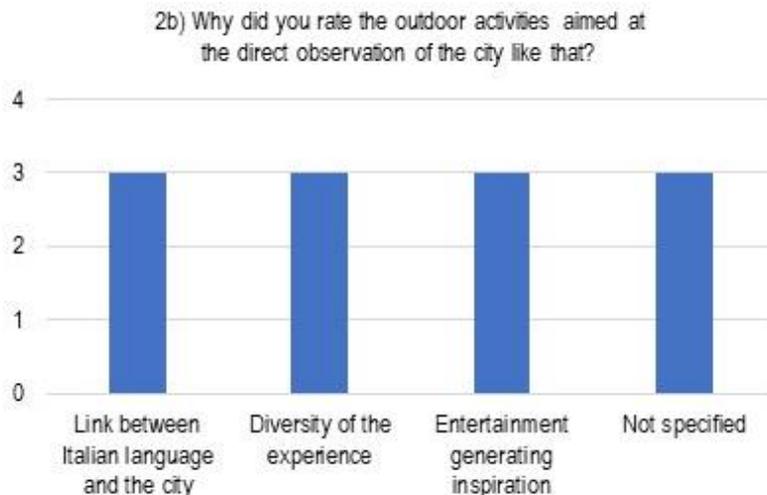


Figure 1. Students' answers to item 2b

First, the outdoor activities represented a strategy to learn Italian while reinforcing the relationship with Venice. Students reported: “The outdoor activities were a way to link the Italian language and the city, as well as to think about our relationship with Venice since the beginning of our discovery of this city” (S4); “I liked reading Tiziano Scarpa’s texts. It was hard but interesting” (S5); “The outdoor activities were very poetic and useful” (S9)<sup>8</sup>. Second, the outdoor activities stimulated students to observe Venice from a fresh perspective in order to achieve a broad view of the city while walking. Students wrote: “It was an amazing way to look differently at the city” (S1); “It was an interesting manner in which to observe a beautiful city, we felt encouraged to look everywhere” (S2); “We discovered Venice in a pleasant way, through walking” (S12). Third, the outdoor activities actively involved students in searching for original ideas and aroused their curiosity to discover Venice through a literary text (starting point) and their personal productions (arrival point). Students stated: “It was fun to look around for ideas to write the scripts” (S3); “The outdoor activities were very participatory” (S6); “I was full of curiosity” (S11).

These reflections proved a useful connection between DST and Linguistic Landscape to promote both SLA and the development of ecological awareness. Although it was not possible to organise didactic itineraries through the lagoon area to completely exploit the teaching benefits of Linguistic Landscape, students’ independent exploration of the territory contributed to motivating them to carry out the project. As a result, the majority of students revealed that the outdoor activities allowed them to observe Venice with greater attention (75%). A few students did not perceive any change (25%) (item 3a: *How did the outdoor activities allow you to directly observe the city?*). To support their ideas, they referred to the search for the place or the element to describe (58%), and to the possibility of reflecting on themselves (25%) (item 3b: *Why?*, Fig. 2).

<sup>8</sup> In the transcriptions of the questionnaire, the focus group, and the multimodal artifacts, students’ names were reported through the corresponding identification codes.

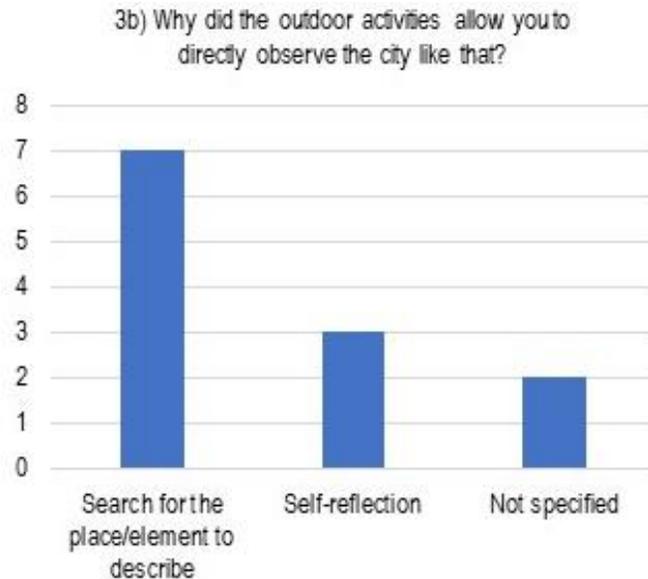


Figure 2. Students' Answers to Item 3b

The outdoor activities stimulated students to pay more attention to the objectively beautiful elements of Venice and all the nuances to capture more details and develop original ideas. As a result, they improved their knowledge of the city. Students wrote: "I did not only think of the beautiful things to see, because I was interested in every aspect of the city" (S1); "When I was walking, I thought about the photographs I could take and the descriptions I could write for the tour" (S9); "I wanted to find the perfect example" (S2). The outdoor activities also allowed students to reflect on both themselves and the relationship they were building with Venice thanks to the experience they were living. S4 reported: "I asked myself which were the most representative visual, taste, olfactory etc. experiences of my stay here. It was an introspective task for me."

Regarding the stages of content development, students confirmed their appreciation of the reading *Venice is a Fish: A Cultural Guide* as a starting point of the project. Students responded that they enjoyed it a lot (65%), and quite a lot (25%) (item 4: *Did you enjoy reading Venice is a Fish: A Cultural Guide?*). In addition, the majority appreciated describing the city through the five senses and enjoyed the creative writing activities a lot (75%), and quite a lot (17%). Just a few students liked them not so much (8%) (item 5: *Did you enjoy describing Venice through the five senses?*). This data reinforced the successful relationship between the use of literature in the L2 classroom, the discovery of the socio-cultural features of a territory, and the reflection on ecological issues.

Concerning the stage of technology training, most students highly valued using *izi.TRAVEL* to create the digital city tour, since they enjoyed employing this platform a lot (67%), and quite a lot (17%). Just small percentages liked it not so much (8%), and not at all (8%) (item 6: *Did you enjoy using izi.TRAVEL to create a digital tour of Venice?*). These evaluations supported students' holistic involvement in DST projects for SLA, including the use of literature and the development of a strong connection with the environment.

### 6.1.2. Focus group

During the focus group students were asked to reflect on the strengths and the weaknesses of the project (item 4: *In your opinion, which were the positive and negative aspects of the project?*). For the strengths, students said the project allowed them to discover places that they did not know, both by themselves while walking through the city in search of inspiration, and through their classmates while reading and listening to their multimodal artifacts. Moreover, the use of *izi.TRAVEL* allowed them to keep the digital tour for themselves, in order to remember the Venetian experience, and for others, by sharing it with families and friends. In addition, the possibility of reading the written scripts and listening to the oral texts every time they want and even at a distance of time will allow them to monitor their own progress in Italian. S3 said the following comment:

Discovering the places that we did not know was a positive aspect of the project. Moreover, uploading our multimodal artifacts online is an opportunity to conserve them all. Maybe in ten

years it will be useful to remember what we did so as not to forget this experience. I think that it would be interesting to do it for every city that we will visit, and also for our French hometown. For me it will be important to share the monuments, bars, and squares that I liked with my friends and family.

S7 mentioned: "It would also be positive to read the scripts and listen to the oral texts in – shall we say – three years' time, that is when we know better Italian, in order to assess how our learning process has evolved."

Concerning the weaknesses, students questioned the availability of the digital tool, *izi.TRAVEL*. There were also comments that students would have liked to write about other current themes such as politics. Regarding the project's structure, they said that perhaps it would have been better to upload the multimodal artifacts at the end of each activity related to a specific sense instead of uploading it all at once. By doing so, students would have been able to see the evolution of the digital tour, reflect on each sense at a time, and avoid focusing on the creation and the presentation of the tour during the last lessons. Students said: "We do not know if *izi.TRAVEL* will always be accessible, and this could be a negative aspect connected with the use of a digital tool" (S4); "Sometimes it was too focused on the same theme, that is, beauty and poetry. I would have liked to write about political topics, but I did not know how to connect them with the five senses" (S11); "Maybe every time that we conclude the activities on a specific sense, we should upload our multimodal artifacts in order to see the evolution of the digital tour, and to discuss in depth about every script and oral text. We did see all the points of interest and multimodal artifacts, but maybe it was too fast for a single lesson" (S9).

Nevertheless, all the students said they would like to use *izi.TRAVEL* for their future study and work projects, even if they did not know precisely how at the moment (item 5: *Will you use izi.TRAVEL for your study and work projects?*). Although *izi.TRAVEL* was not originally created for didactic purposes, students' opinions demonstrated the potential of both this platform and the task-based approach for SLA through DST, despite some critical aspects of the project dealing with a single thematic area and task distribution.

Finally, students reflected on the links between language, culture, literature, and digital tools (item 6: *Is there something that you want to add about the project?*). On the one hand, they affirmed that literary texts could represent a useful resource for improving language skills. S8 said the following comment:

The strong relationship between Italian language and literature was confirmed. By reading literature we can learn the language, and conversely the language exists thanks to the literary texts. When I want to improve my Italian I read newspaper articles, for example. But literature represents language to the utmost degree, and culture as well. It is fundamental to know the most representative literary works of a country to learn its language and culture.

On the other hand, students attributed greater importance to the first-hand experience of both language acquisition and cultural heritage than to the use of digital tools for the same purposes. Students mentioned: "For me it is necessary to know the language before using digital tools. In addition, culture is much more than the digital media. They are a medium to introduce one to the cultural dimension, but it is better to experience the cultural heritage directly, for example of a city. I think that it is difficult to feel real emotions through a digital tool" (S12); "I think that culture must remain a first-hand experience. Digital media represent an effective instrument to communicate the cultural heritage through the language, but they cannot substitute a direct experience with them" (S9); "For me a digital experience cannot cover the enormous diversity inherent to every culture. Digital media can be a useful resource but not the objective as regards the cultural heritage. They can be an effective medium, but not an end, to transforming either culture, or our mindsets" (S7).

Students' ideas confirmed the important contribution of literature in the L2 classroom at a poetic and sensory level. Moreover, their opinions supported the integration of digital tools in a wider variety of methodologies and strategies aimed at SLA within both formal and non-formal contexts.

## **6.2. Impact on students' perceived learning outcomes**

To answer RQ2 (*What impact does project participation have on students' perceived learning outcomes?*), data from the questionnaire (items 7-14), the focus group (items 1-3), and students' multimodal artifacts were considered.

### **6.2.1. Questionnaire**

Students' perceived learning outcomes included the study of Italian language and culture, the knowledge of the territory, and the development of digital competences (item 7: *What did the project allow you*

to do?). To facilitate the reading of the data, items were divided into four groups: Italian language (items a.-h., Fig. 3); Italian culture (items i.-k., Fig. 4); the Venetian territory (items l.-n., Fig. 5); digital competences (items o.-p., Fig. 6).

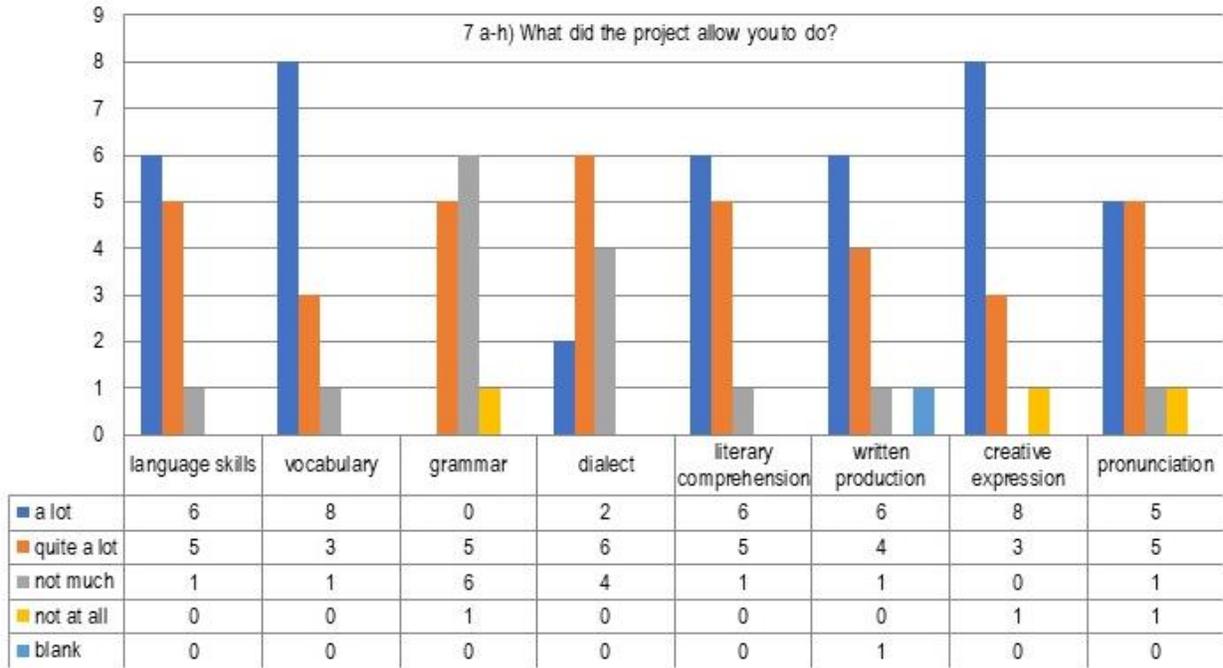


Figure 3. Students' answers to item 7 (a.-h.) on Italian Language

In terms of Italian language development (Fig. 3), students answered that their vocabulary and creative expression improved the most. Moreover, they enhanced their language skills in Italian and increased their literary comprehension. Students also refined their written production and improved pronunciation while recording themselves reading their descriptions aloud. Finally, they learnt quite a lot about the Venetian dialect, but they felt they had not studied much grammar.

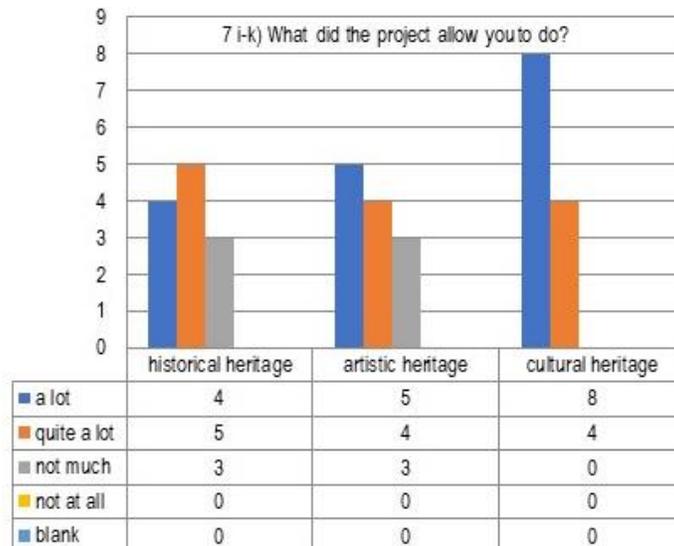


Figure 4. Students' answers to item 7 (i.-k.)

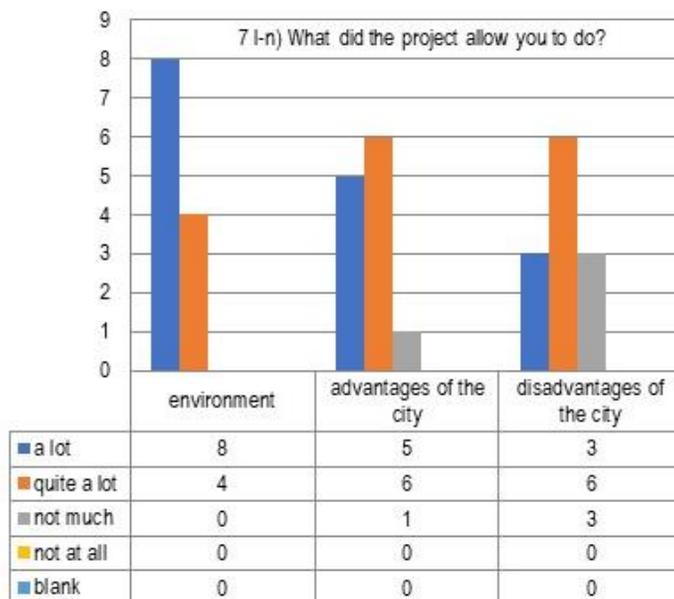


Figure 5. Students' answers to item 7 (l.-n.)

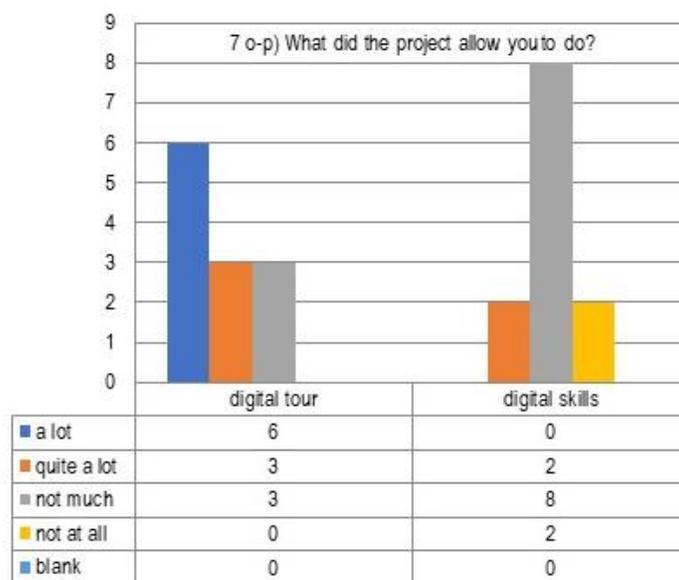


Figure 6. Students' answers to item 7 (o.-p.)

Concerning Italian culture (Fig. 4), students delved into many aspects of the Venetian cultural heritage (i.e., festivities, traditions, recipes, etc.). They also deepened their knowledge about the artistic heritage of the city (i.e., museums, palaces, monuments, etc.). Finally, they extended their knowledge of Venetian history. With respect to the Venetian territory (Fig. 5), students acquired a better knowledge above all of the environment in which they had been living, since they were encouraged to walk around the city and to observe the surrounding landscape. They also increased their understanding of both the advantages and the disadvantages of living in Venice during the pandemic. Regarding the development of digital competences (Fig. 6), students discovered how to create a digital tour of a city, but realised they had not greatly improved their digital skills.

Overall data proved the enhancement of students' linguistic, intercultural, ecological, and digital skills by combining SLA, DST, and literature within the same project. However, students' opinions on the digital dimension revealed the importance of dedicating an adequate amount of time to technology training before starting the audio guide creation.

Students' perceived learning outcomes were also associated with the reading and writing activities. Regarding the connection between comprehension and production tasks, half of the students (50%) considered that the outdoor and writing activities did not influence their reading, while a smaller number (42%) thought that their literary comprehension was facilitated (item 8: *How was the comprehension of Venice is a Fish: A Cultural Guide aided by the outdoor and the writing activities?*). The new information that students learnt through the reading activities on Tiziano Scarpa's book dealt equally with vocabulary (33%), cultural heritage (33%), and social dynamics (33%) (item 9: *What did you discover about Venice thanks to the reading activities?*, Fig. 7).

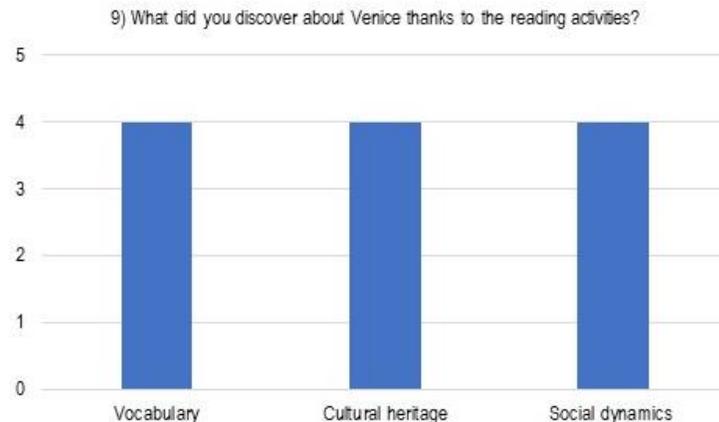


Figure 7. Students' answers to item 9

First, students expanded their lexical competences by learning new Italian words as well as dialect terms and expressions to describe Venice. S1 wrote: "I discovered a different way to speak about the city, such as *calle, fondamenta...* [street, footpath]." Second, students widened their knowledge of the history of Venice and the meanings of the city symbols. They also visited new places and tasted gourmet recipes. S10 reported: "I explored the history, the culture, and some areas of Venice." Third, students learnt about the Venetians' social habits and traditions through the descriptions in Tiziano Scarpa's book. S12 stated: "The vision of a native of his own city." Moreover, through the writing activities, students were able to have further appreciation of the city (42%), improvement of the writing ability (33%), and improved observation (25%) (item 10: *What did you discover about your relationship with Venice thanks to the writing activities?*, Fig. 8).

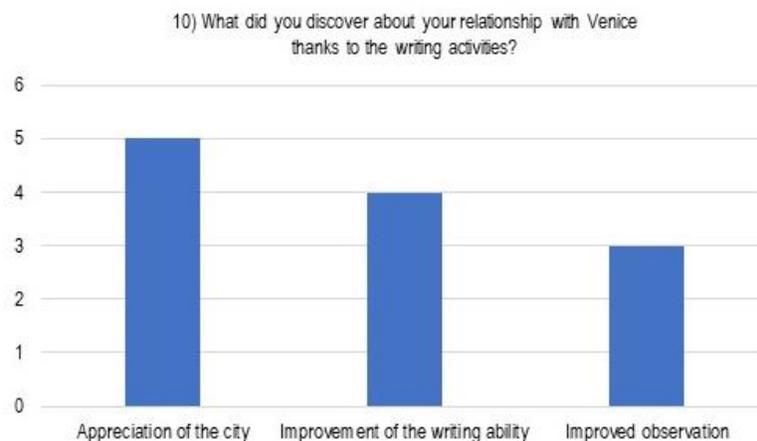


Figure 8. Students' answers to item 10

Students strengthened especially their link with Venice to the point of identifying with it. Students wrote: "I discovered that I am very attached to this city, where I would like to stay longer" (S3); "Venice is a city without too much frenzy. It is relaxing, like me" (S11). They also increased their productive skills in describing a place by doing the five tasks, revising the errors, and correcting the scripts in order to record themselves

reading them aloud. S4 reported: “I discovered that I am better than I expected at writing in Italian.” Some students enhanced their powers of observation by paying more attention to the environment, focusing on details, and selecting the most important ones to describe and to remember. S2 affirmed: “I discovered that I am always staying with my nose in the air, looking at the city and at its details.” Students’ opinions confirmed the potential of proposing creative writing activities on literary texts related to specific territories. Students had higher motivation, improved linguistic competence, expanded socio-cultural knowledge, and increased environmental consciousness.

Finally, students’ perceived learning outcomes dealt with the use of *izi.TRAVEL*, the production of multimodal artifacts, and the creation of the digital city tour. All students had already been introduced to this platform (item 11: *Did you already know izi.TRAVEL?*), and they found the possibility of combining images and oral texts with the written descriptions of a city very interesting (67%), and quite interesting (33%) (item 12: *How do you rate the possibility of combining images and oral texts with the written descriptions of the city?*). For this reason, they considered the use of *izi.TRAVEL* to create the digital tour of Venice very useful (42%), and quite useful (42%). Just a few of them found it slightly useful (17%) (item 13: *How do you rate using izi.TRAVEL to create a digital tour of Venice?*). In addition, the majority of the students felt very satisfied with the final product of the project (75%), while a few of them were moderately happy with it (25%) (item 14a: *Are you satisfied with the digital tour of Venice?*). The reasons why students were satisfied with the digital tour of Venice was because it was considered an ‘innovative, original, and creative product’ (33%), a ‘useful product’ (33%), a ‘collective product’ (25%), and a ‘comprehensive product’ (8%) (item 14b: *Why?*, Fig. 9).

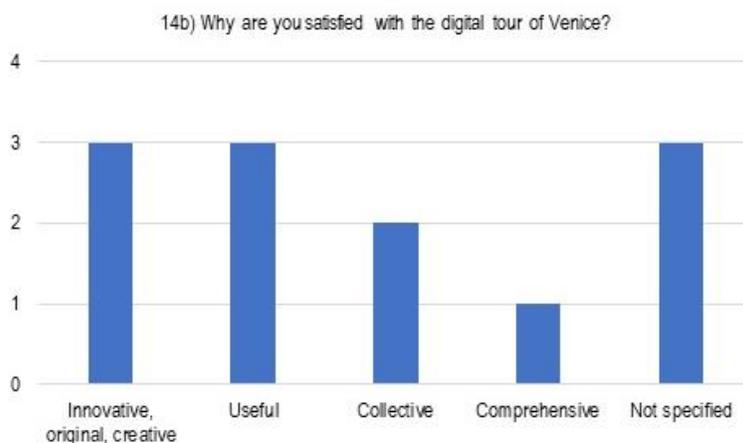


Figure 9. Students’ answers to item 14b

The digital tour was considered as an *original product* since its creation was, above all, a fresh way to discover the city while learning Italian. Students wrote: “It represented a very innovative, modern, and poetic way to learn” (S9); “I managed to creatively use different skills (pronunciation, writing, taking photos...)” (S4). In addition, the digital tour was perceived as a *useful product* because it stimulated students to improve their linguistic, digital, and cultural skills, and to exploit their imagination in order to create a record of their experience. Students stated: “I learnt vocabulary and I discovered an app” (S4); “The digital tour is an honest summary of our stay in this city” (S12); “The digital tour will be a good instrument by which to remember my experience in Venice during the Master” (S6). The digital tour was also defined as a *collective product* since students enjoyed producing a shared final product through which they also learnt from each other. Students explained: “I liked discovering Venice through my friends’ eyes” (S3); “It was interesting to have something in common at the end of the project” (S9). Finally, the digital tour was perceived as a *comprehensive product* because students judged *izi.TRAVEL* as a very complete digital tool. S10 affirmed: “I find the app really complete (text + location + photo + audio), and I want to show it to my close relatives and friends.” This data demonstrated the successful use of *izi.TRAVEL* to develop students’ digital literacies, multimodal competences, and interpersonal abilities aimed at both increasing their autonomy in the stages of content development, written text, images, and oral text, and at reinforcing their sense of community in the stages of audio guide creation and presentation.

### 6.2.2. Focus group

Students were asked to recall previous experiences regarding the creation of digital city tours (item 1: *Have you already created digital tours of cities?*). No one had already worked on similar products, but some of them were familiar with *Mapstr*, an application that allows one to keep track of people's favourite places by tagging them and including them in one's own map, as well as sharing them with friends. Students discussed the main differences between *izi.TRAVEL* and *Mapstr* in terms of different functions. In their opinion, *Mapstr* can be used before visiting a city whereas *izi.TRAVEL* can be used both before and after travelling, in order to know where to go and to preserve memories of the visits. As regards their expectations of the project at the beginning of the creative process on the digital tour, students who were familiar with *Mapstr* thought about a digital product without a route or audio files, while others envisioned a digital tour including both images and oral texts (item 2: *When I told you that you were going to create a digital tour of Venice starting from your written productions, what did you expect?*).

Concerning the utility of the project, students reported that project participation allowed them to improve their linguistic skills, discover Venice, and express themselves (item 3: *Was it useful to participate in the project? If so, why?*). They considered that the tasks were motivating, useful, and emotional by saying: "We discovered Venice in a different manner because we had to find interesting places, choose what to write about, and describe it creatively" (S6); "It was useful also because it allowed us to appropriate the city in a creative way, since we had to put something of ourselves into it to practise Italian" (S9); "I think that it was a motivating exercise to work on grammar and pronunciation... It was a very complete linguistic activity, and a very personal task too" (S5).

Students' limited previous experiences and expectations emphasized the project's innovative aspects. Their perceptions regarding its utility highlighted their global involvement. At the cognitive level, they recognised the improvement of their communicative skills in Italian as an L2. At the emotional level, they referred to their contribution to the project and their personal appropriation of the city that they had managed to discover despite the increasing restrictions of that period.

### 6.2.3. Students' multimodal artifacts

The project's final product "Venice is..." corresponded to the homonymous digital tour uploaded on the *izi.TRAVEL* platform. Having entered the tour, it is possible either to follow every stage by reading the scripts, listening to the audio files, and looking at the images, or to select a particular stage directly. Students decided to reserve access to viewing the audio guide to the users who had the password, since their multimodal artifacts included personal stories, impressions, and feelings, and private photographs of their families, friends, and themselves in Venice. Nevertheless, simply looking at the overall view of the digital tour (Fig. 10) it is easy to appreciate the numerous points of interest that students included, and how they are distributed as stages along the path, starting from the bus station at *Piazzale Roma* and finishing at the *Lido beach*<sup>9</sup>.

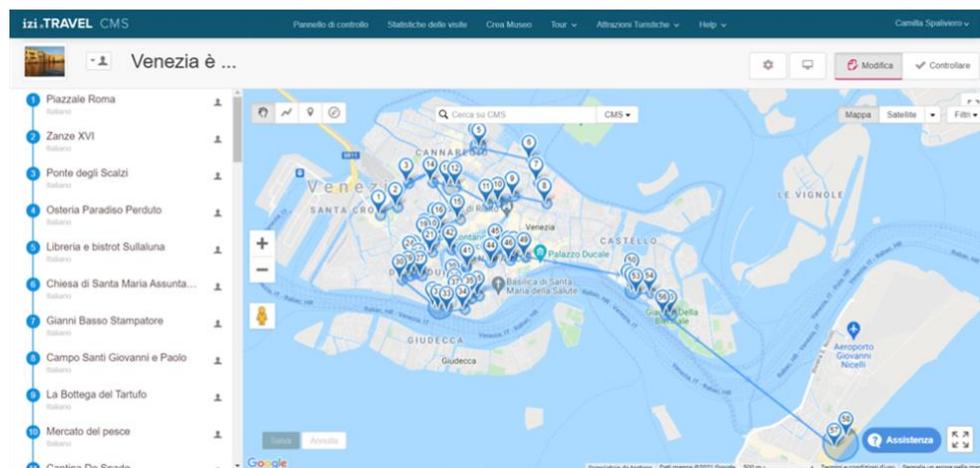


Figure 10. Students' digital tour "Venice is..." on *izi.TRAVEL*

<sup>9</sup> Although students' multimodal artifacts were 60, two of them were not included in the digital tour because the reviewed versions were not delivered in time for the outreach event.

The table below outlines the content of students' multimodal artifacts in order to show the relationship between the five senses and the Venetian points of interest that they evoked, according to the scripts, the photographs, and the audios produced by the students. In some cases, the same point of interest was chosen by two or more students, who analysed it from different perspectives. For example, three students chose the ringing of the church bells to describe the sense of hearing, but each with a different motivation. The first student pointed out how the sound filled the emptiness of the streets during the lockdown. The second underlined the different functions compared to the Orthodox church bells in Russia. The third associated the religious sense the bells emitted with her childhood memories of the French countryside, in contrast to her later experience of the widespread atheism of French big cities.

Table 4  
*The Content of Students' Multimodal Artifacts*

Sense	Point of interest	Written text	Image	Oral text
Touch	<ul style="list-style-type: none"> <li>- Bars in <i>Santa Margherita</i> square</li> <li>- Bars in <i>Santo Stefano</i> square</li> <li>- <i>La Fenice</i> theatre</li> <li>- <i>Franchetti</i> palace</li> <li>- <i>Mocenigo</i> palace</li> <li>- <i>San Barnaba</i> street</li> <li>- <i>Lido</i> beaches</li> </ul>	<ul style="list-style-type: none"> <li>- The joining of students' hands as a symbol of friendship</li> <li>- The warmth of a <i>cappuccino</i></li> <li>- A half full bottle of Italian wine due to the early closing of bars</li> <li>- The velvet armchairs of the theatre</li> <li>- An art exhibition made of wax</li> <li>- The velvet costumes of the XIII Century</li> <li>- An old metal doorknocker</li> <li>- The sand and the sea water</li> </ul>	<ul style="list-style-type: none"> <li>- Joining of hands</li> <li>- A bottle of wine</li> <li>- Hands holding a coffee cup</li> <li>- The furniture of the theatre</li> <li>- A work of art made of wax</li> <li>- Venetian costumes</li> <li>- A doorknocker</li> <li>- Students walking barefoot on the beach</li> </ul>	Students' audios of themselves reading the scripts
Hearing	<ul style="list-style-type: none"> <li>- A private garden in <i>Dorsoduro</i> neighbourhood</li> <li>- Churches and bars in <i>Santa Margherita</i> square</li> <li>- Churches and bars near the <i>Squero</i> (boatyard)</li> <li>- The <i>Zattere</i> footpath</li> <li>- The bus station</li> <li>- A student's house during a quarantine period</li> </ul>	<ul style="list-style-type: none"> <li>- The tweeting of the birds in the morning</li> <li>- The ringing of the church bells in the night</li> <li>- The sounds of the coffee machine and of the waiters' voices</li> <li>- The singing of the seagulls</li> <li>- The sirens warning before high tide</li> <li>- The noise of the marine traffic</li> </ul>	<ul style="list-style-type: none"> <li>- Trees outside students' balcony</li> <li>- Bell towers</li> <li>- A seagull</li> <li>- An <i>espresso</i> on the bar counter</li> <li>- Local newspaper headlines about high tide</li> <li>- Ferry boats in a Venetian canal</li> </ul>	Original recordings of: <ul style="list-style-type: none"> <li>- birds</li> <li>- church bells</li> <li>- seagulls</li> <li>- high tide sirens</li> <li>- ferry boats</li> </ul>
Taste	<ul style="list-style-type: none"> <li>A selection of:</li> <li>- typical Venetian bars</li> <li>- typical Venetian restaurants</li> <li>- ethnic restaurants</li> </ul>	<ul style="list-style-type: none"> <li>The history, the ingredients, and the sensations regarding:</li> <li>- Venetian drinks</li> <li>- Venetian dishes (such as the discovery of the <i>carbonara</i> without cream)</li> <li>- ethnic dishes</li> </ul>	<ul style="list-style-type: none"> <li>- Bar interiors</li> <li>- Restaurant interiors</li> <li>- Drinks</li> <li>- Dishes</li> </ul>	Students' audios of themselves reading the scripts

Smell	<ul style="list-style-type: none"> <li>- Bars and restaurants near <i>Santa Margherita</i> square</li> <li>- Bars and restaurants near <i>La Salute</i> church</li> <li>- Food shops</li> <li>- Dinners at students' houses</li> </ul>	<ul style="list-style-type: none"> <li>- The aroma of coffee</li> <li>- Flavour of parmesan cheese</li> <li>- Aromas of pizza along the street</li> <li>- Smell of home cooking</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Espresso</i> on the bar counter</li> <li>- <i>Macchiato</i> coffee on the bar counter</li> <li>- A dish of pasta with parmesan cheese</li> <li>- A dinner table laden with plates</li> </ul>
Sight	<ul style="list-style-type: none"> <li>- The <i>San Marco</i> footpath</li> <li>- <i>San Marco</i> square</li> <li>- The Arsenal</li> <li>- Bridges near <i>Santa Margherita</i> square</li> </ul>	<ul style="list-style-type: none"> <li>- The emptiness of <i>San Marco</i> square</li> <li>- The magic of sunsets on the lagoon</li> <li>- The magic of sunsets on the canals</li> </ul>	<ul style="list-style-type: none"> <li>- Students' looking at the <i>San Marco Basilica</i> across an empty square</li> <li>- Sunsets on the lagoon</li> <li>- Sunsets on the canals</li> </ul>

Besides corresponding to the final product of the project, the digital tour bore witness to students' experiences and reflections on themselves living in Venice at a very particular time. On the one hand, the topics covered the typical Venetian aspects, such as the 'happy hour' in *Santa Margherita* square, the high tide experience, and the visits to the representative city monuments. For example, to describe the sense of taste S6 wrote:

My favourite Venetian place to eat in is a family restaurant called *Osteria Alba Nova dalla Maria*, where the mother cooks, the father keeps the accounts, and the sons wait at table. Food and drinks are fantastic and typical of the region. I suggest ordering both squid-ink pasta and *polenta* with *porcini* mushrooms. The mother is so relaxed that she is often dressed in pyjamas, which I love.

As regards the sense of smell, S7 reported:

There is nothing better in the morning than waking up with the smell of coffee, especially if you drink it in the best Venetian bakery, that is *Tonolo*. In France you drink coffee for hours, on the terrace, chatting and watching the people walking down the street. In Italy you drink coffee fast, preferably at the counter. I usually go past this bakery, and I am always attracted by the delicious aroma. So, one day, standing at the counter between two regular customers, I ordered a *macchiato* and a pastry too. Like everybody there, I drank and ate everything very fast, but the whole time I was smelling that incredible aroma of coffee. Now I understand why so many people queue to enter!

On the other hand, the issues reflected a particular historical moment, like the quarantine experience, the preventive isolation, and the closing of bars, theatres, and cinemas. For example, to describe the hearing sense S3 and S4 wrote:

I associate the sound of bells ringing with the empty Venetian streets where I meet nobody. It is such a privileged and cinematographic walk, but it is also so anguished! The deserted city is a consequence of the current situation, and I will remember it as a very special and difficult period.

The noise of marine traffic is peculiar, but it seems even pleasant to me due to my melancholy mood. – She is crazy! – you may be thinking. But I am not! I just cannot go out [due to the quarantine], and this noise coming from outside reminds me of the time when I could walk near the sea, listen to the ferry boats leaving for the islands, and eat fried fish on Sundays in Burano.

As regards the touch sense, S8 and S9 explained:

Human contact is even more necessary in this difficult moment. The bond with new friends is an essential component of this experience and this photograph [the joining of students' hands] symbolises one of the most significant elements of Venice for me: friendship.

To me touching Venice means also stroking the red velvet of *La Fenice* theatre with my hand, and feeling the voices, gestures, costumes, interactions, opera arias, and humour through that touch. Discovering a city means entering into its living art as well... but this is going to be closed soon.

To describe the sight sense S2 affirmed:

We go back to *San Marco* square. It is empty, the street lamps turn on even if the sky is still bright. We stop talking, we look at the *Basilica*, and we feel astonished by the absurd beauty of this out-of-time moment, while the entire world is paralysed owing to the pandemic.

The digital tour on *izi.TRAVEL*, students' multimodal artifacts, and the citations of their contributions lead to an appreciation of the numerous points of interest that the students included. This includes the original associations with the five senses, and the profound reflections on the role of Venice as crossroads of cultures even at such a difficult time. These pieces of information demonstrate students' involvement in project implementation and its relevant impact on their perceived outcomes.

## 7. Discussion

The data collected from this action research project focused on *izi.TRAVEL* and allowed us to understand the impact of project participation on students' attitudes and perceived learning outcomes regarding their linguistic and digital skills. Despite the limited group, the analysis of data has revealed some interesting outcomes that are worth considering in detail.

Regarding the impact of project participation on students' attitudes (RQ1), student favorably evaluated the whole didactic proposal. The great majority of students appreciated the different stages of the project, such as reading the literary text, developing the multimodal activities, and using *izi.TRAVEL*. Due to the impossibility of organising didactic itineraries outside the classroom for the content development stage, other solutions had to be made. The reading of a famous, representative, and recently updated book on the city where students were living proved to be a winning strategy to overcome restrictions for group visits in closed places and motivate students to compare the literary content with their impressions of the lagoon area. Most students enjoyed the literary comprehension activities since they felt motivated to discover Venice from a famous writer's perspective and creatively add their personal experiences. By relating these findings to the conceptual framework, results confirm the function of literature as a valuable teaching resource in the L2 classroom, especially when it is included in DST projects (Hetland, 2016). It refers to the territorial, social, and cultural contexts that students are experiencing (Iovino, Cesaretti, & Past, 2018). Concerning the multimodal production stage, the writing activities were judged positively despite the limited variety of themes due to the focus on Venetian culture, art, and territory. The majority of students felt motivated to train their productive skills while ideally continuing Tiziano Scarpa's literary text from their current perspectives. As for the outdoor activities, students appreciated the direct observation of Venice since they found this an original, engaging, and useful exercise to enhance language acquisition and reinforce their connection with the city. Students paid increased attention to identifying a symbolic and unconventional place or element to describe. Students also become aware of the changes they were going through while living that experience. The first positive aspect of the project that students identified was the enhancing of their environmental awareness of Venetian territory off the tourist routes. During the in-class presentation stage, reading and listening to their classmates' multimodal artifacts represented an opportunity to discover the surrounding area. Since students only discussed the content development stage together, they were curious to discover their classmates' digital stories. Students were well satisfied at seeing how their multimodal artifacts had been gathered into a single common product. These findings are consistent with the potentialities of the Linguistic Landscape approach (Malinowski, 2015; Shohamy & Gorter, 2009). In fact, the outdoor activities aimed at describing, photographing, and recording the known and hidden sides of the city managed to successfully exploit the link between the formal activities in Italian as an L2 and students' independent exploration of the cultural, artistic, and literary traditions of the lagoon area during the extra-lesson time.

Regarding the technology training stage, students appreciated creating the digital tour with *izi.TRAVEL*. Students had never created a similar product before but were familiar with this platform. Moreover, they judged its multimodal features and functions positively and found it motivating to carry out the writing activities alongside the images and oral text production. Despite depending on the future functioning of the platform, students valued the digital tour on *izi.TRAVEL* highly since it allowed them to perceive the concrete result of their efforts. It represented the tangible product of both the Italian as an L2 course and of their

Venetian stay, with the bonus of showing it to Tiziano Scarpa. In particular, students recognised the importance of the digital tour as a record of their Italian acquisition process, to be compared with future developments. In addition, they did not exclude the possibility of using *izi.TRAVEL* in their future jobs. They also underlined their appreciation of employing digital media for SLA and cultural heritage promotion as long as they are used as an instrument to integrate – instead of to replace – language learning and cultural experiences. These findings prove the effectiveness of the combination between *izi.TRAVEL*, focused on delimited territories (museums or cities), and the task-based approach for SLA through DST (Oskoz & Elola, 2016). The project managed to involve students at both cognitive and emotional levels by tracing the gradual stages of their understanding of the project aims, interpreting the city starting from Tiziano Scarpa's model, exploiting students' linguistic and non-linguistic resources, and creating the digital city tour as the final result (Ellis, 2009).

With respect to the impact of project participation on students' perceived learning outcomes (RQ2), students improved linguistic, cultural, and digital competences, and raised their environmental consciousness. As for students' progress in acquiring Italian as an L2, they succeeded in widening their vocabulary and reinforcing language skills thanks to literary comprehension, pronunciation, and creative writing activities. Students were also exposed to the local dialect during the reading of *Venice is a Fish: A Cultural Guide* and the exploration of the city (typical dishes on the menus, natives' speech, street signs, etc.). When considering the content of students' multimodal artefacts, students' points of interest associated with the sense of taste referred mainly to typical Venetian bars and restaurants (Table 4). However, most students perceived that they did not examine grammatical issues in depth. In fact, the activities of the content development stage mainly dealt with bringing out students' previous knowledge regarding the lagoon area and verifying the comprehension of the literary text – especially of the lexical items. The stages of written text, images, and oral text aimed at promoting the creative representation of Venice through the five senses from students' current perspectives. Students achieved this by respecting the characteristics of the descriptive genre and associating representative photographs and audio recordings. As regards the enhancement of the students' knowledge of Italian culture, they managed to study and experience several features that define the city's cultural, artistic, and historical heritage. By looking at the content of students' multimodal artifacts, the points of interest regarding the sense of touch included the visits to important Venetian theatres and palaces (Table 4). In addition, students reported that the reading activities on Tiziano Scarpa's book fostered the acquisition of new Italian words and dialect terms and promoted an in-depth analysis of the local cultural heritage and of social dynamics. Finally, students revealed that the outdoor and writing activities improved observational and productive skills, and made them empathise both with Venice and with their classmates. As a result, students felt that they became gradually familiar with the surrounding environment and developed an increased ecological awareness about the city's rather obvious strengths and its critical state and weaknesses. This awareness is represented effectively in the content variety of students' multimodal artifacts, including both the typical Venetian elements and the consequences of the Covid-19 emergency.

Regarding the development of students' digital competences, they became experts in creating city tours with *izi.TRAVEL*, but they felt that they did not consistently expand their digital abilities. On the one hand, students reported that creating the audio guide enhanced their digital skills. During the stages of technology training and in-class presentation, they received intensive instruction on the functions of *izi.TRAVEL* to enable them to create, refine, and present the digital tour. Initially, these tasks should have been completed in several lessons. However, the outreach event with Tiziano Scarpa, which was arranged after the start of the course, curtailed them. For these reasons, it was not possible to extend the training in the use of the digital tool, spread the creation of the audio guide over more lessons, or foster students' collaborative evaluation before uploading their multimodal artifacts. On the other hand, at the beginning of the project, students had little experience and made modest predictions as to producing an audio guide with *izi.TRAVEL*. However, once they were introduced to this platform, they discovered a new digital tool, learnt how to use it, and produced multimodal artifacts thanks to their training in various literacies. Moreover, the high quality of students' multimodal artifacts demonstrated their widespread commitment to the project (Fig. 10, Table 4). In particular, by observing the content of their digital products, it is possible to appreciate the variety of the points of interest, the creativeness of the subjects, and the insertion of all multimodal components.

To sum up, by combining different multimodal elements (text, images, audios) within a communal digital product, the project "Venice is..." managed to develop students' multiliteracies in Italian as an L2 (Lotherington & Jenson, 2011; Ohler, 2008). Students' opinions regarding the overall utility of the project proved their holistic participation, since they considered the digital city tour both an opportunity to learn Italian as an L2, and a personal and collaborative experience. These findings are consistent with the linguistic,

intercultural, and technological benefits of developing DST projects aimed at SLA (Lambert & Hessler, 2018; Lee, 2014; Oskoz & Elola, 2016; Robin, 2016). Within this context, literary texts are confirmed as a valuable tool to promote language and culture acquisition, while exploring local areas and training teamwork competences (Maddin, 2014).

Besides the above-mentioned promising findings, rather important limits in data analysis and discussion emerged regarding the development of the technology training stage. Due to inevitable ongoing changes in the project's structure, a reduced amount of time was dedicated to the technology training before the audio guide creation, and the uploading of the multimodal artifacts was concentrated at the end of the project. Moreover, although students' multimodal artifacts were included in the data set, the students themselves limited access to the audio guide in order to protect the personal additions and the private photographs they had included in the digital city tour; this effectively prevented a complete showing of their voices and contributions.

Therefore, if a similar project were to be repeated, the timetable should be better distributed in order to: organise a more extensive training in the use of the digital tool; spread the creation of the digital tour over more lessons; and encourage students' collaborative evaluation before uploading their multimodal artifacts. Students could be involved both in the self-evaluation of their own stories, and in giving supportive feedback to their peers' scripts during story circles (Oskoz & Elola, 2016; Robin & McNeil 2012). Finally, at the beginning of the project, students should be informed of the open access publication of their audio guide in order to circumvent the problem of privacy arising.

## 8. Conclusion

With respect to the worldwide necessity of increasing the use of technologies-enhanced language learning, especially during the Covid-19 pandemic, *izi.TRAVEL* appears to be an effective tool for facilitating SLA through DST. Since digital devices are constantly evolving, the experimentation of pedagogical approaches that exploit students' teaching potentialities contributes significantly to innovating the existing didactic practices. Due to time constraints and technical barriers, the efficacy of these tools is often reduced, thus it is useful to share how they can be positively applied according to user response data.

An action research project regarding the use of *izi.TRAVEL* for SLA was designed and piloted with a small group of university students of Italian as an L2. Although conclusions are limited in their broader applicability due to the small sample size, the findings revealed that students' attitudes and perceived learning outcomes rated the project positively and confirmed the linguistic and technological benefits of using DST for SLA. Despite the study's limitations, the innovative aspects that characterise this pedagogical approach have the potential to encourage the implementation of further projects combining SLA and DST. It would be interesting to develop a more comprehensive study regarding the teaching of Italian as an L2 through a set of free digital resources, such as *izi.TRAVEL* and other geo-location enabled tools (*Mapstr*, *Echoes*, *Fulcrum* etc.) within other university settings, to develop new reflections on integrating applied linguistics and digital education.

Moreover, once the general circumstances fully allow it, it would be possible to integrate such teaching practices with didactic itineraries beyond the classroom, aimed at combining language and digital development with the improvement of students' ecological awareness. These proposals are consistent with the notion of "communicative competence" (Hymes, 1972), where knowing a language means developing different clusters of competences and mastering a broad set of abilities to communicate effectively. By referring to the three general objectives of language education, self-actualization, culturalization, and socialization, Balboni (2018) stated that "language is the main instrument both of *thought* and of *relation* among people" (p. 68). Thanks to the design and the implementation of didactic itineraries within non-formal contexts, students would be even more stimulated to create digital tours in which to upload historical, literary, and artistic content associated with the places they visited, in order not just to train linguistic and digital competences, but also to develop strategies of environmental communication.

## Acknowledgements

I wish to express my heartfelt gratitude to Tiziano Scarpa, Professor Rosella Mamoli Zorzi, and Dr. Rossella Scatamburlo (Dante Alighieri Society of Venice), Professor Francesco Casarin (Ca' Foscari University of Venice), Professor Ilaria Serra (Florida Atlantic University), and all the students who participated in the project.

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## Appendix A

### QUESTIONNAIRE

Dear students, I am investigating the teaching of Italian through digital resources, and I need your help. The questionnaire aims at understanding how you rate the project "Venice is..." and what you think you have learnt. This is not a test and there are no right or wrong answers. The questionnaire is anonymous and will take only 15 minutes of your time. Thank you for your cooperation!

1) How do you rate the overall project?

- very interesting
- quite interesting
- slightly interesting
- not at all interesting

2a) How do you rate the outdoor activities aimed at the direct observation of the city?

- very interesting
- quite interesting
- slightly interesting
- not at all interesting

2b) Why?

3a) How did the outdoor activities allow you to directly observe the city?

- with greater attention
- with less attention
- as usual

3b) Why?

4) Did you enjoy reading *Venice is a Fish: A Cultural Guide*?

- a lot
- quite a lot
- not much
- not at all

5) Did you enjoy describing Venice through the five senses?

- a lot
- quite a lot
- not much
- not at all

6) Did you enjoy using *izi.TRAVEL* to create a digital tour of Venice?

- a lot
- quite a lot
- not much
- not at all

7) What did the project allow you to do? (1=not at all, 2=not much, 3=quite a lot, 4=a lot)

	1	2	3	4
a. train language skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. expand vocabulary	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. study grammar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. learn the Venetian dialect	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. enhance literary comprehension	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. enhance written production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. develop creative expression	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. improve pronunciation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. delve into the Venetian history	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. delve into the Venetian artistic heritage (i.e., the monuments)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. delve into the Venetian cultural heritage (i.e., the festivities)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. acquire a better knowledge of the environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. acquire a better knowledge of the advantages of living in Venice during the pandemic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. acquire a better knowledge of the disadvantages of living in Venice during the pandemic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
o. discover how to create a digital city tour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
p. improve digital skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8) How was the comprehension of *Venice is a Fish: A Cultural Guide* aided by the outdoor and the writing activities?

- easier
- harder
- similar

9) What did you discover about Venice thanks to the reading activities?

10) What did you discover about your relationship with Venice thanks to the writing activities?

11) Did you already know *izi.TRAVEL*?

- yes
- no

12) How do you rate the possibility of combining images and oral texts with the written descriptions of the city?

- very interesting
- quite interesting
- slightly interesting
- not at all interesting

13) How do you rate using *izi.TRAVEL* to create a digital tour of Venice?

- very useful
- quite useful
- slightly useful
- not very useful

14a) Are you satisfied with the digital tour of Venice?

- a lot
- quite a lot
- not much
- not at all

14b) Why?

15) Gender:

- male
- female
- other

16) Age:

- 20-25 years old
- 26-30 years old
- more than 31 years old

17) I have been studying Italian for:

- less than 1 year
- 2-3 years
- 4-5 years
- more than 5 years

## Appendix B

### FOCUS GROUP QUESTIONS

- 1) Have you already created digital tours of cities?
- 2) When I told you that you were going to create a digital tour of Venice starting from your written productions, what did you expect?
- 3) Was it useful to participate in the project? If so, why?
- 4) In your opinion, which were the positive and negative aspects of the project?
- 5) Will you use *izi.TRAVEL* for your study and work projects?
- 6) Is there something that you want to add about the project?

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