ONLINE COLLABORATIVE WRITTEN ACTIVITIES IN L2 FOR THE TEACHING OF LANGUAGE AND CULTURE

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Abstract:
This study investigates the potential affordances of new technologies and the opportunities offered by wikis in facilitating L2 collaborative writing in university settings for the teaching of culture. Participants were 92 undergraduate students of Italian as foreign language in the department of Italian Language and Literature of the university of Athens. They attended and participated in a laboratory course of alternative culture environments and online activities in foreign language. A task-based wiki environment managed to involve the students in a variety of online activities culturally meaningful and authentic educational activities. An initial and a final questionnaire were selected and analysed by ANOVA and POST HOC TEST (Tukey) confirming that online collaborative wikis tools are able to promote teamwork, can increase knowledge of culture and foreign language and can create positive conditions for cultivating creativity and collaborative, written expression.

Keywords: collaborative writing, wiki, second language writing, computer- mediated learning in L2

1. Introduction: Wiki-mediated L2 collaborative writing

Collaboration in second language (L2) writing has been emphasized by many researchers, presenting positive effects during the last decades. A sense of co-authorship and encouragement, a contribution on writing (e.g. language, organization, content) and an enrichment on writing experience is underlined (Reinhardt, 2019, 2017; Yanguas, 2019; Hsu & Lo, 2018; Li, 2018; Zheng and Warschauer, 2017; Aydin & Yildiz, 2014; Storch, 2013; Tyrou & Mikros, 2012; DeHaan et al., 2012; Pellet, 2012; Kost, 2011; Elola & Oskoz, 2010; Oskoz & Elola, 2010; Kessler & Bikowski, 2010; Lee, 2010; Bradley, Lindström and Rystedt, 2010; Parker & Chao, 2007; Schaffert, Bischof, et al., 2006). The opportunities to write collaboratively and to benefit from collaborative autonomous language learning are enhanced using technology and multimodality (Castañeda, 2013). While the learners

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combine different elements, materials and technologies, they can increase not only their creativity and 21st century literacies, linguistic and non-linguistic, (Castañeda, 2013), but also the attention to language forms and discourse, such as lexis and grammatical accuracy and discourse (DiCamilla & Anton, 1997). Learners in L2 written environment are willing to take more risks and they can develop their L2 interlanguage further according to interactive views of acquisition (Williams, 2012). In particular, William (2012) insists that writing can facilitate knowledge creation by presenting studies which demonstrate that the new knowledge creation is prompted by collaborative tasks that involve writing.

In Tyrou and Mikros (2012) research was found that the collaborative learning in L2 offered more interactive motives in the target language, whilst it converted the linguistic and cultural education to social multidimensional experience. Moreover, research on second language acquisition (Murray, 2005) shows that collaboration, through online activities (such as project-based and learning task-based activities) between students facilitates language acquisition. Interaction also develops and evolves the intercultural competence approach. Storch (2013) has clarified as true collaborative writing activities not only when participants work together and interact throughout the writing process, but also when the product is a co-owned and jointly produced text that cannot be simply reduced to the separate input of individuals.

The opportunities of Web 2.0 tools for collaborative writing in order to increase the interest in the teaching of L2 is mentioned in many researches (e.g. Hsu & Lo, 2018; Li & Zhu, 2017; Sevilla-Pavón, 2015; Kessler, Bikowski & Boggs, 2012; Elola & Oskoz, 2010a;). As Sevilla-Pavón (2015) states, the advent of Web 2.0, the social web, has fostered the emergence of a new collaborative culture shared by internet users worldwide in which the notions of intertextuality and hypertext have evolved, resulting in the reconsideration of authors and their role in text production. Li (2018) underlines that the Web 2.0 tools such as wikis and Google docs afford the entire writing process, from task negotiation, languaging, to text co-construction, revising and editing until producing the final writing product. Other researches (Tyrou & Mikros, 2012; Elola & Oskoz, 2010a) have shown the important role that collaborative writing occupies today among speakers of a foreign language, and specifically in creatively designed wiki environments.

2. Literature review

Collaborative writing is determined as an activity in which students interact, negotiate meaning, and make joint decisions throughout the writing process and produce a single text with shared responsibility and co-ownership (Storch, 2013). Collaborative activity is a more effective way to create new knowledge. Wiliam (2012) underlines that the first step in knowledge co-construction is reflection, while writers have the chance to consult their explicit knowledge in making composing decisions. The second step is the production during collaboration, a procedure which can push learners toward a

"*reprocessing and repackaging of implicit knowledge*". This is stated as "languaging". The implicit knowledge that exists can be made available to use and it becomes explicit.

With the advent of Web 2.0 tools (e.g. Wikis, Google docs) that combine participation and collaboration at an unprecedented level, not only there has been an enhancement of the learning process with others in computer-mediated collaborative environment (Parker & Chao, 2007), but also a computer-mediated collaborative writing has gained increasing attention in second/foreign language learning contexts (Li, 2018).

As Zheng and Warschauer (2017) stated "*it is important to explore the potential affordances of new technologies for facilitating L2 writing in an age where being literate means knowing how to communicate using digital technologies*". Wikis offer new opportunities to combine all the vital parts of teaching, allowing learners to focus on structure or organization and grammatical accuracy. Wikis are at the centre of educational interest as they have dynamic characteristics that promote collaborative creation and collaborative learning. They form dynamic learning environments, where learners are activated, participate, interact, collaborate and ultimately develop and build knowledge (Reinhardt, 2019; Zheng & Warschauer, 2017). Schaffert, Bischof, et al. (2006) underlined that collaborative learning can be more powerful and effective when it takes place in the context of a community of practice. In that sense, wikis could serve as a knowledge platform where the community share their knowledge with the group, presenting useful pieces of information, working together, or discussing issues, etc.

Reinhardt (2019) reviewed 87 surveys between 2009 and mid-2018, on the formal and informal use of social media, blogs, wikis, and social networking for second and foreign language teaching and learning. He categorized them according to their focus on affordances for meaning over form, for collective activity and collaboration, for virtual learning environments, for the support development of awareness of genuine and imagined audiences, and finally for task design parameters and learner variables. He concluded that these studies have provided evidence that social media can afford the development of intercultural, sociopragmatic, and audience awareness, language learner and user identities, and particular literacies.

Some studies have looked at wiki-mediated co-writing L2 and concluded that wikis engage learners in the writing process by helping each other reorganize content and correct mistakes (e.g., Aydin & Yildiz, 2014; DeHaan et al., 2012; Kost, 2011; Elola & Oskoz, 2010; Kessler & Bikowski, 2010; Lee, 2010; Oskoz & Elola, 2010; Parker & Chao, 2007). Forte and Bruckman (2006) presented the writing-to-learn paradigm and the students' engagement in collaborative writing activities; in their research, they suggested that collaborative publishing on a wiki provide a fascinating model for creating authentic classroom writing activities. Hafner and Ho's research (2020) into digital multimodal composing also underlines the importance of motivating and authentic activities for L2 writers in the digital era.

Because of their very low technological barriers yet very rich and flexible functionality, wikis afford the opportunity to offer collaborative, constructive learning more extensively in our educational environments (McMullin, 2005). Wikis enhance

asynchronous communication and cooperative learning among learners, favoring cooperation rather than competition (De Pedro et al., 2006). Lee (2010) reported that during the wiki collaboration, students linguistically made scaffolds with each other to identify and correct phrase and word errors.

Other studies on collaborative wiki writing have also reported that learners have made changes to the format and content of common texts (e.g., Aydin & Yildiz, 2014; Kost, 2011; Kessler & Bikowski, 2010) and not just edited their own writing, but they also edited the posts of their other groups, and self-and peer-to-peer corrections led to a high level of accuracy (Aydin & Yildiz, 2014; Kost, 2011). Bradley, Lindström and Rystedt (2010) encouraged students to construct text with their peers. They wanted to observe and explore how wikis can enhance group interaction. They noted an interesting collaboration in terms of language learning. In Pellet's research (2012) 30 advanced French sociolinguistics undergraduate students responded very positively to the project, in which they had to use wikis to build, manage, and share course content knowledge. They realized wiki's role as a collaborative knowledge building. In Abe's research (2020) online collaborative writing provided opportunities of organizational aspects of writing and multimodal interactional skills to manage computer mediated L2 writing.

Vurdien (2011) investigated how a blog as a computer mediation tool attracted a group of English as foreign language learners to a language school in Spain in a contemplative and collaborative learning. The study showed that appropriate pedagogical intervention leads to meaningful learning and, based on the feedback of their classmates, learners improve their written work and produce texts without errors. The use of the internet appears to motivate learners and reduce their anxiety over language production (Young, 2003). Rott & Weber (2013) also supported the need for guidelines and focused instruction for effective in the development of literacies in other social media. They submitted works on the use of wikis in L2 German and French teaching.

From the other hand, there are projects that can fail if the proper pedagogical focus is not given to the learners, like the study of Kennedy & Miceli (2013). They used a wiki for their university level beginning Italian learners at three Australian campuses. Then, a post-instructional survey showed that only a minority of the 79 students was fond of the wiki and understood it was advantageous and useful to their learning. Some qualitative responses presented appreciation for interaction, but showed frustration at technical problems, lack of training, division of labour or lack of teacher presence.

Li (2018) also states that it has been for the features of writing interactivity, the composing reflection and time independence that the collaborative writing in the online mode has become a promising research direction. Li (2018) has reviewed many computer-mediated collaborative L2 writing research which has focused on asynchronous ways of communicating and collaborating, mainly through wikis, for example Li & Zhu, 2017; Li & Kim, 2016; Bikowski & Vithanage, 2016; Wang, 2015; Kost, 2011; Ducate et al., 2011; Kuteeva, 2011; Elola & Oskoz, 2010a; Lee, 2010. Yanguas (2019) explored L1 and L2 synchronous interactions and explored fluency, accuracy, and complexity in a task-based writing assignment. Elola & Oskoz (2010a) examined learners' collaborative synchronous

interactions related to the elaboration of the writing task in the wikis and highlighted how learners' interactions with the text differ when working individually or collaboratively. Collaboration and content and language development were emphasized by another study of Elola and Oskoz (2010b) on the use of discussion boards, wikis, and chats in two Spanish courses as L2.

In the context of a university course in English as a foreign language Lai, Hu and Lyu (2018) studied student collaboration patterns for their performance on wiki writing collaborative projects. Their analysis highlighted three approaches to collaborative wiki content development: a) individual synthesis and interactive content review, b) parallel synthesis with simultaneous interactive review, and c) parallel synthesis with limited interactive revision.

Tyrou and Mikros (2012) observed Greek students learning Italian as L2 and online collaborative activities and they pointed out that computer-assisted language learning has favoured comprehension and the creative written expression, familiarizing them with elements of Italian culture. Moreover, the "open" philosophy of the wikis facilitated the content development, evolved additional computer skills, and encouraged their partner's progress. An overall improvement in grammar, pragmatics, vocabulary, and learner confidence was reported too (DeHaan et al., 2012). A study from 13 university level English learners in Japan was conducted for the use of a wiki to prepare, transcribe, discuss, and practice spoken role plays, focusing on interactional competence and fluency.

Stickler and Hampel (2010) showed with their study that an online language course can combine different approaches to learning and teaching, for example by using language communicatively and focusing on form and language practice. A project by Arnold, Ducate, & Kost (2009) of the wiki revising activity of three classes of 54 L2 German learners presented positive results of collaboration in an undergraduate course in German as a foreign language in a wiki environment. Their results revealed that wikis can encourage writing skills and revision performance in linguistic accuracy. Then, Arnold, Ducate, & Kost (2012) examined their aforementioned data for examples of true collaboration as opposed to cooperation. In the new analysis, they found four assumed roles: free rider, social loafer, team player, and leader. They concluded that these assumed roles may lead to uneven distribution of work and lack of collaboration. Reinhardt (2019) cited a study of 90 university EFL learners in China conducted by Lai, Hu and Lyu (2018) noticing that true collaboration might depend on willingness to share tasks and shift roles between tasks.

Zorko (2009) conducted a qualitative exploration of students' perceptions of collaboration in the wiki. The students observed were sociology ones at university level who used this environment in blended, problem-based learning. The results presented that, despite some data which indicated that the wiki was less successful in facilitating some types of collaboration, such as communicating with peers and co-constructing products, there were a confirmation that the wiki can be used to enhance effective collaboration in a constructivist approach to language learning. Another study (Mak &

Coniam, 2008) for the use of a wiki as an online collaborative writing tool in an English as a second language programme resulted in improved coherence and in a peer reviewing. Thus, the idea of collaboration was not fully made use of by the students. Schwartz et al. (2004) surveyed twenty-four universities and reported how wikis are being used. They reported that most dealt with activities, events, or clubs rather than with curricular issues. Schaffert, Gruber and Westenthaler (2006) also suggested ways in which wikis can be useful in project knowledge management, such as exchange of ideas and coordination of activities.

Lund (2008) searching on 30 English learners in Norway who planned and created a class wiki, gave a socio-cultural collective activity passing from individual ownership to collective and reflecting values of reciprocity and multi-voicedness. Schaffert, Bischof, et al. (2006) suggest the use of wikis in project-based learning, collaborative story writing, and interdisciplinary and intercultural learning.

Digital literacies, in turn, are social literacy practices in digital, technology-enhanced contexts. As Reinhardt (2018) states: "*They can be multimodal, transcultural, and polylingual in nature, and may include multiplicities of literacies in a variety of languages, cultures, identities, and affiliations*". In the same way, Solmaz (2015) supports that activities should mirror genuine uses of social media, promoting multimodal, transcultural, and polylingual expression of identities.

This study contributes to the existing literature by examining not only how wiki writing activities help learners to participate, interact and collaborate, but also how Web 2.0 tools can create alternative learning environments for teaching Italian Culture and Italian as a foreign language.

3. Material and Methods

3.1 Research cases
The present study set out to investigate the impact of emerging Web 2.0 technologies on the teaching of the Italian language and its culture. Specifically, this research aims to create alternative learning environments using Web 2.0 tools for teaching Italian culture and Italian as a foreign language in the context of university language education. The purpose of this study was the language and cultural education of future Italian language teachers through alternative cultural environments, such as those of virtual museums, but also the dynamics of online activities in foreign language and culture courses.

According to these objectives, the main assumptions of the research are as follows:
- Can the Italian language and its culture be taught effectively with the use of New Technologies and especially in wikis environments, enhancing students' familiarity with cultural material and at the same time link language learning to it?
- As students become familiar with New Technologies for educational purposes and with virtual museums, can they increase their knowledge of the Italian

language and its culture and is there a positive relationship between teamwork and the achievement of the educational objectives of the course?

3.2 Empirical design structure

Our survey was conducted to students of the Department of Italian Language and Literature of National and Kapodistrian University of Athens. The aim of the research was to investigate the impact of emerging Web 2.0 technologies on the teaching of Italian language and culture. The written activities developed were based on theories of constructivism, multiple types of intelligence and creative writing, to create alternative learning environments through the collaboration and the active participation of students. The choice of the topic was based on the assumption that the Italian language and its culture can be taught effectively with the use of New Technologies, which can enhance students' familiarity with cultural material and at the same time can connect language learning to it. During our research, there was a rich interaction, an exchange of ideas between students, alternative ideas, and the formation of a flexible view of things. Undergraduate students are producers of information and learning is based on their own experiences. They can choose what they will learn, are interested in, and encourage the performance of the other. The occasion of our research was to contribute to the incomplete empirical research on the creative and didactic use of the Internet and social networking environments with emphasis on wikis environments to undergraduate students of foreign language at university departments.

With the term wiki we referred to an asynchronous and online collaborative learning of Web 2.0 that can enhance not only a fruitful social interactions and open teaching models, but also a collaborative and positive psychosocial framework within the foreign language classroom. Eight laboratory courses were designed, consisting of a variety of activities and from which each group would choose only one to develop. Modern approaches to learning consider that knowledge cannot be disconnected from the general social and cultural context and emphasize the need to design activities that involve students in culturally meaningful and authentic educational activities (Bosniadou, 2006).

3.3 Selection of the sample

The sample of our research included 92 of our students - 15 men and 77 women - and after a theoretical training on the use of the Internet, Web 2.0 and wikis, they participated in laboratory classes. Their ages ranged from 18 to 40 years old and they worked in groups. We must keep in mind that this is not a random sample, but for those of our undergraduate students who chose this course. The first step in our research was to define our sample, for example that these are Italian language students studying in the first year of the Department of Italian Language and Literature of the University of Athens, who were attending for the first time teaching a foreign language through new technologies, and more specifically, they made use of advanced Web2.0 technologies and wikis collaborative learning environments.

3.4 Planning online written activities

Having these characteristics as a model, and through the selection of activities that favor the criteria for creative thinking (originality of thought, sensitivity to problems, mental agility, mental flexibility, ability to compose, ability to transform, and ability to process), we tried to provoke and define positive conditions for cultivating the creativity of our students, which could be manifested through creative, collaborative, written expression, taking into account the special features of their personality and trying to create appropriate conditions (Tyrou & Mikros, 2012). Our aim was to develop a pleasant climate of trust, to maintain communication and tolerate failure, using external sources of information, independence, initiative, participatory decision-making and experimentation with new ideas.

4. Results and Discussion

4.1 Initial questionnaire- Interpreting the results

The students who participated in our study were mainly women (N = 77) who represent 84.6% of our sample. Their mean age was 22 years with 5.93 SD, with a minimum age of 18 years and a maximum age of 40 years. 16 students (17.4%) were native speakers of Italian and the rest (N = 76) have an average duration of study of Italian as a foreign language of 3.8 years with an SD of 2.45. Many students have a computer (95.7%) and most of them (60.9%) have taken courses related to computer use. Most of them stated that they often or very often use email (61.9%) and the Internet to search for information (89.1%) and judged their relationship with computers and the Internet as good or excellent (83.7%).

In the questionnaire given before the start of the laboratory courses, we tried to assess the students' beliefs about the usefulness of New Technologies in the process of learning a foreign language and their impact on the familiarity with the foreign culture. Variance Analysis (ANOVA) was used to test the statistical significance of the different answers given in the question of what can be achieved through computer-based teaching. As we can see in Figure 1, the evaluation of the answers given showed that the students answered in a statistically significant way (F = 12.272, df = 6, 624, p <0.000).

Our students believed that computers are powerful learning tools that have the ability to provide up-to-date information (M = 3.78, SD = 0.4) and promote teamwork (M = 3.51, SD = 0.67), making the course a pleasant learning experience (95.5%). In addition, they considered that with the integration of computers in teaching they could acquire additional technical skills (M = 3.45, SD = 0.5) and get to know better not only the Italian culture (M = 3.31, SD = 0.5), but also to acquire more knowledge on the vocabulary and grammar of the language in question (M = 3.17, SD = 0.7). Finally, a small percentage believed that they could improve their grade by using computers in the course (M = 3.06, SD = 0.7).
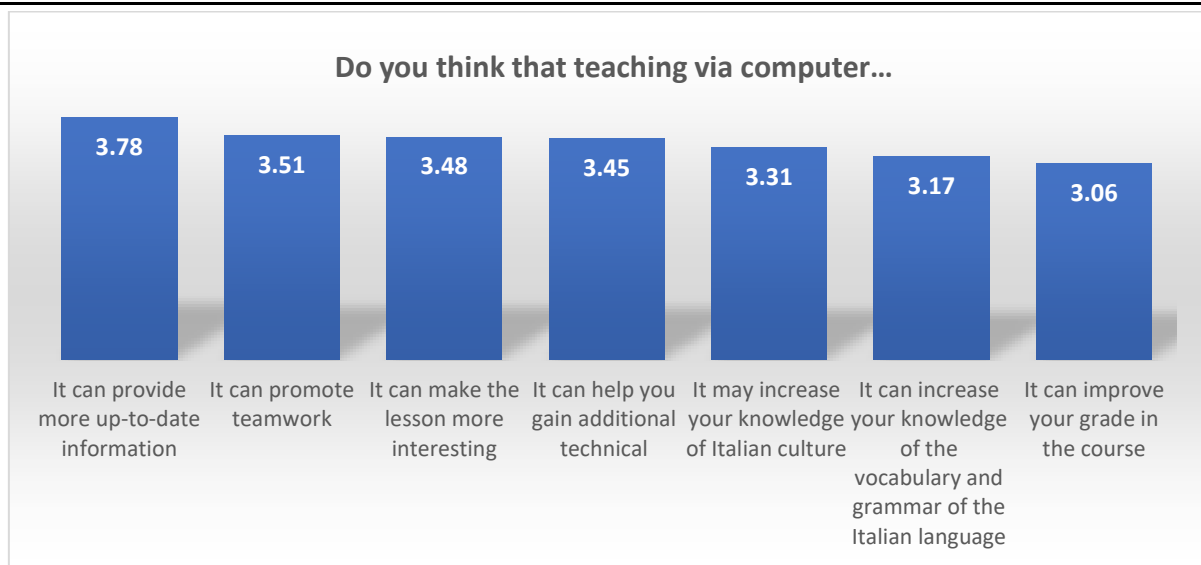
Figure 1: The students' answers to the question
"Do you think that teaching through the computer…"

Table 1 shows data that were further tested using a post hoc test (Tukey) to detect differences within the answers given to the question.

Table 1: Post hoc test analysis (Tukey) for the question
"Do you think that teaching through the computer…".

	N	Subtotal with error level a = 0.05			
		1	2	3	4
(1) It can improve your grade in the course	90	3,06			
(2) It can increase your knowledge of the vocabulary and grammar of the Italian language	92	3,17	3,17		
(3) It may increase your knowledge of Italian culture	87	3,31	3,31	3,31	
(4) It can help you gain additional technical skills	89		3,45	3,45	
(5) It can make the lesson interesting	92			3,48	
(6) It can promote teamwork	90			3,51	3,51
(7) It can provide up-to-date information	91				3,78
Sig.		,118	,068	,370	,082

From the table above we found that the 7 sub-questions of the question "Do you think that teaching through the computer…" can be grouped into 4 sub-groups based on the answers given by our sample. The questions (1), (2) and (3) are grouped together and the answers given do not differ statistically significantly from each other. Respectively the questions (2), (3) and (4) are statistically significantly different from those of the first subgroup but do not differ from each other. In addition, the third subgroup with the questions (3), (4), (5) and (6) do not differ statistically significantly from each other. The students rated the specific questions as equally important to them. The last subgroup that emerged from the post hoc analysis is the one with the questions (6) and (7) which have

a higher mean acceptance (μ = 3.51 and μ = 3.78 respectively) and differ statistically significantly from all other responses.

The authentic written activities in university departments that teach foreign language and culture, from the one hand, can support our undergraduate students with the current issues, the society, and the culture they are studying. From the other hand, the team spirit helps them to adapt a more open way of thinking and writing, to have a common goal, to share responsibility and support each other.

Moreover, most of our postgraduate students (91.3%) believed that the uses of New Technologies can provide those opportunities for creative activities.

As we can see in Figure 2, our students positively evaluated the ability of New Technologies, as an environment constantly evolving and rich in cognitive and informational material, to contribute and support on the one hand learning and collaboration and on the other hand their creative expression in planned pedagogical activities.

The lesson via computer...

becomes comprehensible	Provides incentives for further search and learning		Develops a methodological and scientific way of thinking		Discourages creativity		It creates a sense of dependence
3.17	3.48	3.43	3.19	3.09	3.19	1.63	2.23	2.65
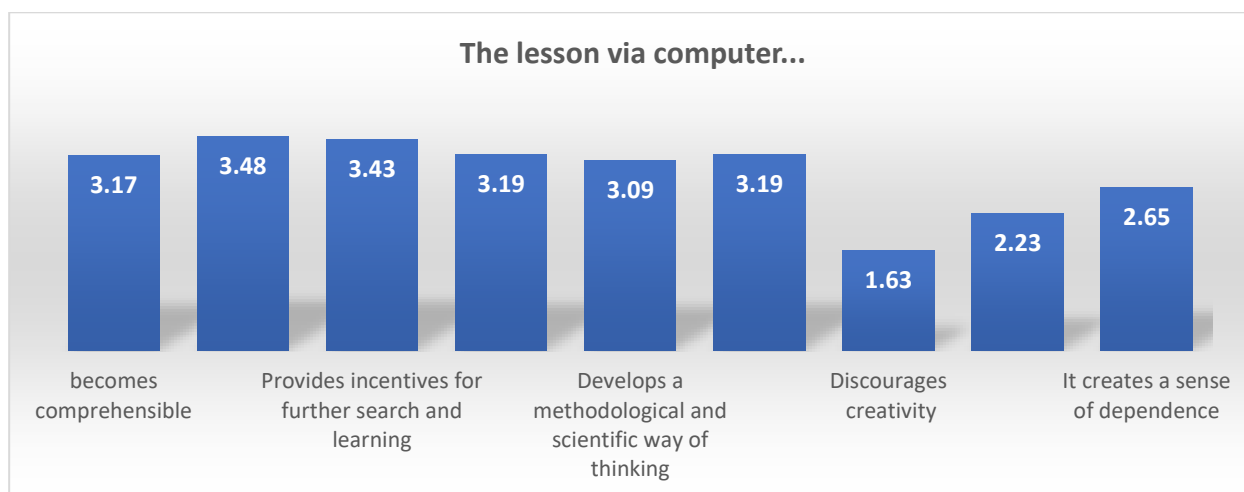
Figure 2: Bar chart with the answers to the question
"*The lesson via computer…*"

Then, they believed that by using the New Technologies they can make the lesson enjoyable and easy (M = 3.48, SD = 0.58) but also full of motivation for further search and learning (M = 3.43, SD = 0.6). Furthermore, the computer lesson can deepen the topics that students are discussing (M = 3.19, SD = 0.6), encouraging creativity (M = 3.19, SD = 0.7) and understanding (M = 3.09, SD = 0.7). Fewer students believed that during the teaching, the use of the computer will lead to a feeling of dependence (M = 3.65, SD = 0.9), will contribute to social isolation (M = 2.23, SD = 0.9) or discouragement of creative expression (M = 1.63, SD = 0.6). We concluded, therefore, that computers facilitate the comprehension of the course (92.2%) and enhance creativity (84.7%).

Data were further tested, as we see in Table 2, using a post hoc test (Tukey) to detect differences within the answers given to the question.

Table 2: Post hoc test analysis (Tukey) on the question "*The lesson via computer…*".

Cat2	N	Subtotal with error level a = 0.05				
		1	**2**	**3**	**4**	**5**
(1) It discourages creativity	637	1,63				
(2) Contributes to social isolation	644		2,23			
(3) It creates a sense of dependence	637			2,65		
(4) Develops a methodological and scientific way of thinking	630				3,09	
(5) Becomes comprehensible	630				3,17	
(6) Encourages creativity	637				3,19	
(7) Deepens the topics under study	630				3,19	
(8) Provides incentives for further search and learning	623					3,43
(9) Becomes easy to use	630					3,48
Sig.		1,000	1,000	1,000	,247	,944

From the table above we can see that the 9 sub-questions of the question "The lesson via computer" can be grouped into 5 sub-groups based on the answers given by our sample. The question (1) from the first subgroup does not differ statistically significantly from that of the second subgroup question (2), nor from the question (3) of the third subgroup. Respectively, the questions (8) and (9) are statistically significantly different from those of the first, second and third subgroups, but do not differ from each other. The students rated the specific questions as equally important to them. The fourth subgroup that emerged from the post hoc analysis is the one with the questions (4), (5), (6) and (7), which have mean acceptance (μ = 3.09, μ = 3.17, μ = 3.19 and μ = 3.19 respectively) and differ statistically significantly from all other responses.

It becomes obvious that the concepts of understanding and deepening into the issues with which our students negotiated are extremely important. They believed that with New Technologies they could design their own learning curriculum and gradually be led to understand another language and its culture. They acquired knowledge on the subject that they negotiate, understood and visualized concepts, explored, but also gained learning experiences in Internet environments, designed, and evaluated the products of learning itself, which leads to understanding and reflection. The Internet, multimedia and hypermedia, the virtual reality provide opportunities for both personalized experiences and social interactions, while enhancing informal and meaningful learning. It also follows from the same subgroup that New Technologies can introduce students to a scientific approach to knowledge and reality. They will give them the opportunity to observe and explore, to be interested, stimulating their imagination. Finally, creative engagement with New Technologies is crucial for our students. The desire for creative expression through the computer will help students to experience different situations through aesthetic experiences, producing many ideas, using the metaphorical way of thinking. Encouraging creativity can engage students in authentic

social activities and teach them to negotiate language and communication codes that promote autonomy and self-control. By being exposed to different societies and cultures, their imagination is stimulated, and the consciousness of alternatives becomes an integral part of their way of thinking.

In a series of related questions, we tried to investigate the impact of various elements of the online design of museums on the overall image and perception that our students have of museum spaces. Despite their overall very positive attitude towards New Technologies in foreign language learning, the majority of them had not visited virtual museums (73.9%) nor had they communicated with them via e-mail (95.6%).

With the follow question, in Figure 3 we wanted to explore their believes on the elements they considered important in a website.
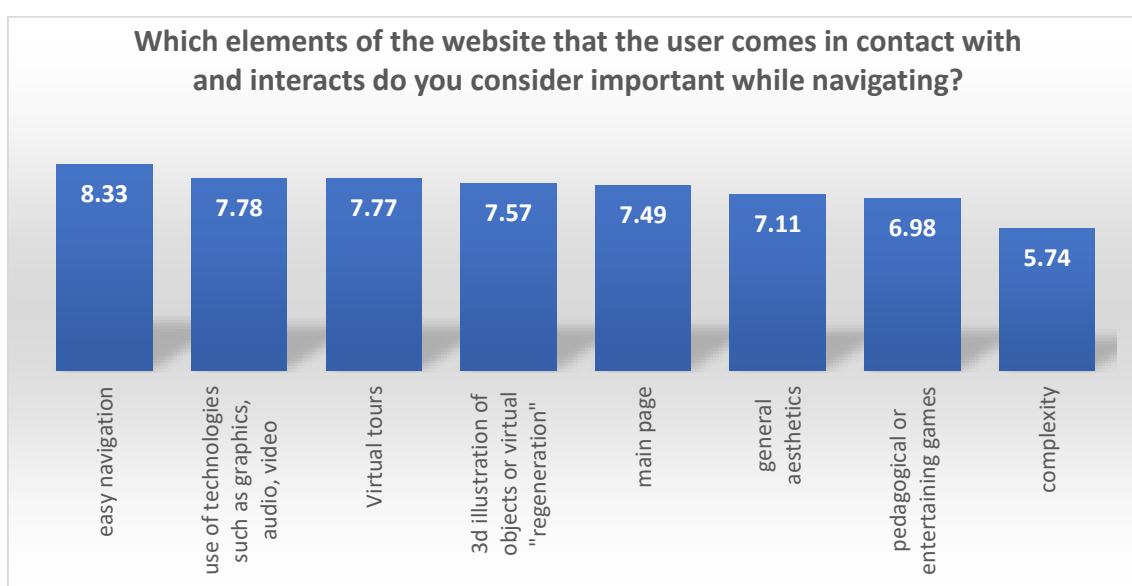
Figure 3: The data that the user considers important for the online design of museums

We found that our students valued, on a scale of 0-10, as the most important aspects of a website the ease of navigation (M = 8.33, SD = 2), the use of technology (M = 7.78, SD = 2 , 2) and virtual tours (M = 7.77, SD = 2.1), as well as the three-dimensional display of objects (M = 7.57, SD = 2.3). Less important were the home page (M = 7.49, SD = 2.4) and the general aesthetics of the website (M = 7.11, SD = 2.3), as well as the various games (educational or entertaining) (M = 6.98, SD = 2.2) and the complexity of the page (M = 5.74, SD = 2.3).

In Figure 4 we could observe what they considered important for the content of the online museum.

Figure 4: Bar chart with students' answers to the content of the online museum

Our students evaluated the content of a museum website, by understanding its content (M = 8.55, SD = 1.8) and the ease with which one can search for information in it (M = 8.50, SD = 2.5) to occupy the highest positions. They also considered important the accuracy (M = 8.38, SD = 1.9) and its quality (M = 8.30, SD = 2.4), but also the satisfaction of the requirements of the public (M = 8 , 18, SD = 1.9). They rated less the utilization of information for research and education (M = 8.16, SD = 2), but also the adequacy (M = 7.95, SD = 2.2) and the amount of content of the website (M = 7.51, SD = 2.1).

We found that the majority of our students (74%) did not visit often museums, while half of our students have visited a museum in Italy.

We also tried to find (Figure 5) out what functions they would expect to find in a virtual museum. The most anticipated content were the images (M = 8.44, SD = 2.3) and the virtual tours (M = 8.17, SD = 2.5) followed by the videos (M = 8.09, SD = 2), links to other museums and sources (M = 7.79, SD = 2.2) and online presentations (M = 7.38, SD = 2.2). A smaller percentage evaluated the various online discussions (M = 6.72, SD = 2.2) and educational games (M = 6.39, SD = 2.3).
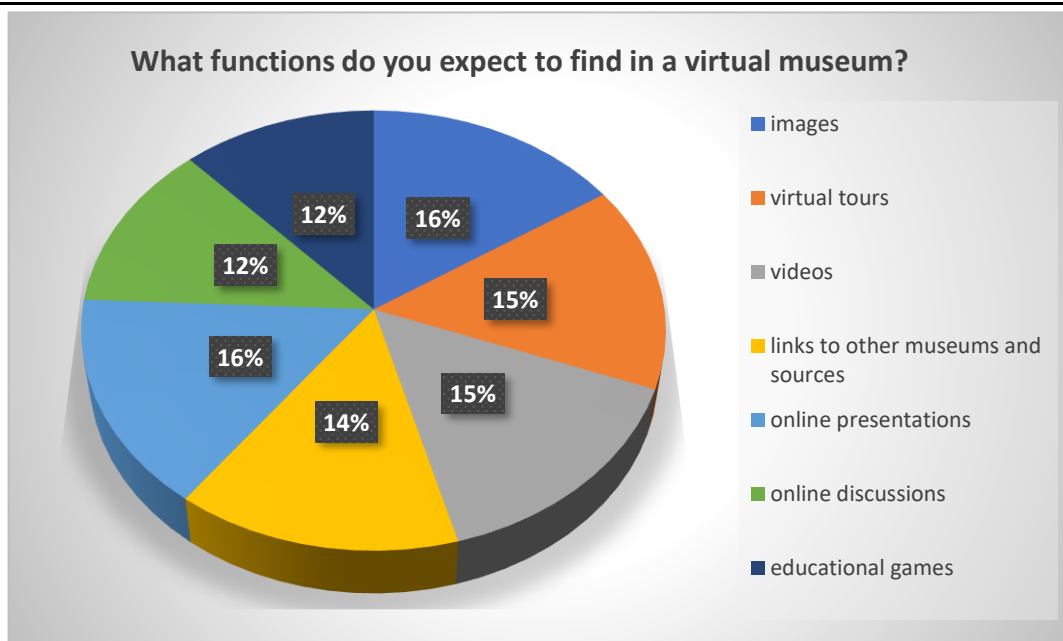
Figure 5: *"What functions do you expect to find in a virtual museum?"*

4.2 Final Questionnaire- Interpreting the results

After completing the laboratory courses, we provided an additional questionnaire, in order to assess the overall satisfaction of our sample from the wikis-based learning experience, as we can observe in Figure 6.
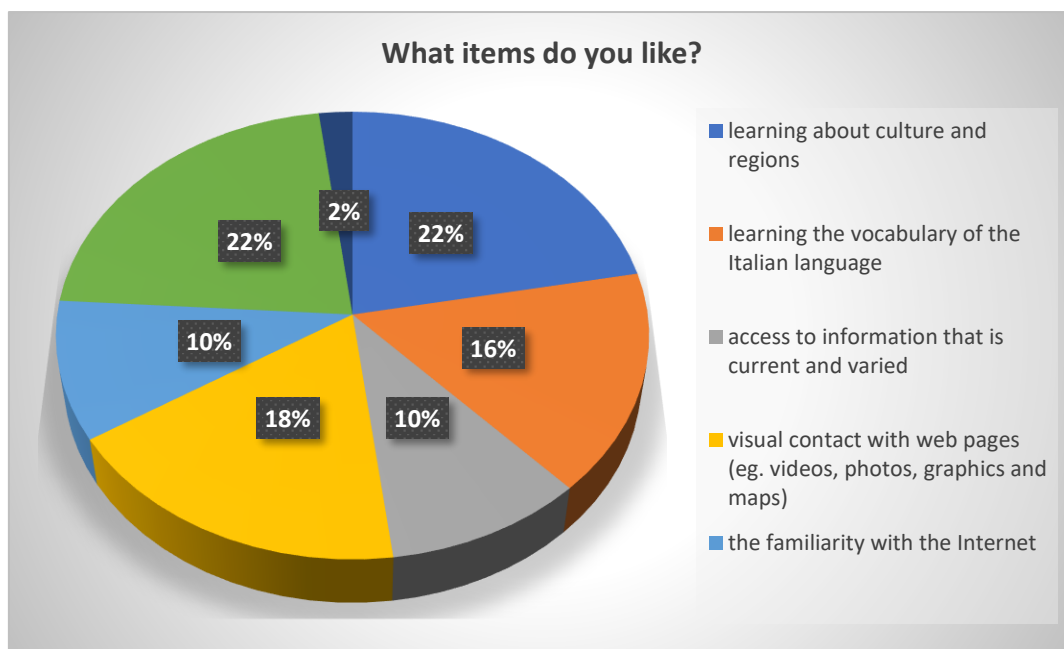

Figure 6: Students' answers about the subjects they liked the most

What was most appreciated by the courses was the familiarity with cultural elements from specific places in Italy (22%) but also the interaction with the multimedia elements of the websites and their creative use (22%). This is followed by the ability of

users to make visual contact with the various websites (18%) and to learn vocabulary (15.9%). To a lesser extent, our students evaluated the familiarity they gained with the Internet (10%), the access to current information (10%), but also the instructions they received for the completion of the activities (2%).

We also explored the preferences of our sample regarding the services provided by the websites of the various museums, with which they had the opportunity to interact during the courses (Figure 7).
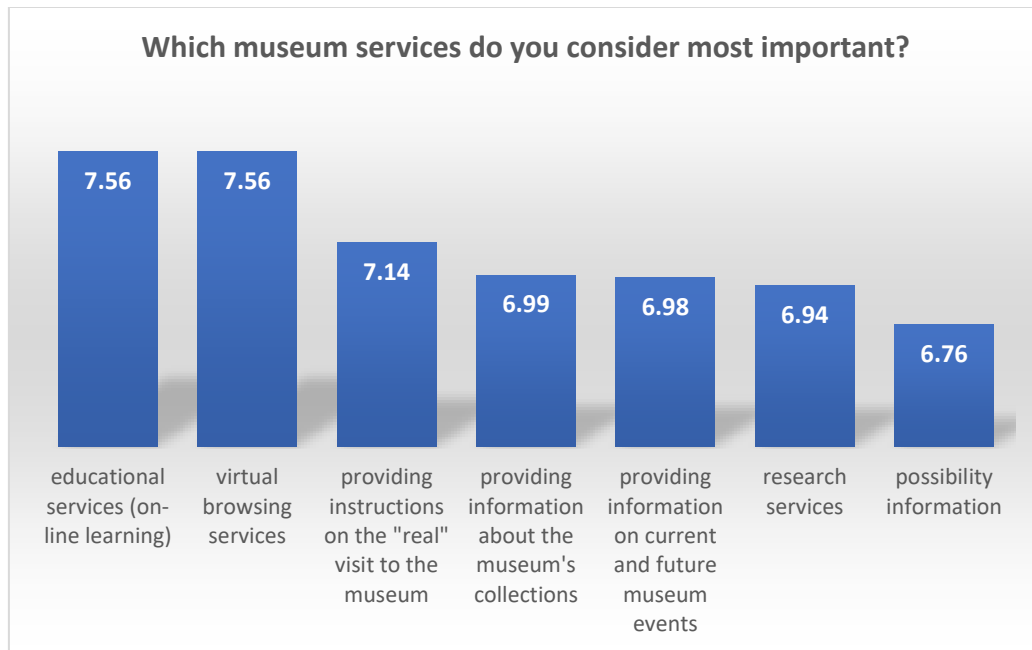
Figure 7: Bar chart for *"Which museum services that students consider most important?"*

Most of them ranked, on a scale of 0-10, as the most important services both online educational services (M = 7.56, SD = 2.34) and virtual tours (M = 7.56, SD = 2.48). They also considered that the provision of information, in relation to the actual visit to the museum, was very important (M = 7.14, SD = 2.52), as well as the information related to the collections that each museum has (M = 6.99, SD = 2.8). In a similar position are evaluated the information that are related to current or future events of the museum (M = 6.98, SD = 2). The following were the museum research services (M = 6.94, SD = 1.9) and the possibility to participate in the work of the museum (M = 6.76, SD = 2.1).

Table 3 shows our students' positive evaluation on their learning experience. To test the statistical significance of the different answers given in the question for the evaluation of the use of advanced Web 2.0 technologies, the Analysis of Variance (ANOVA) was used.
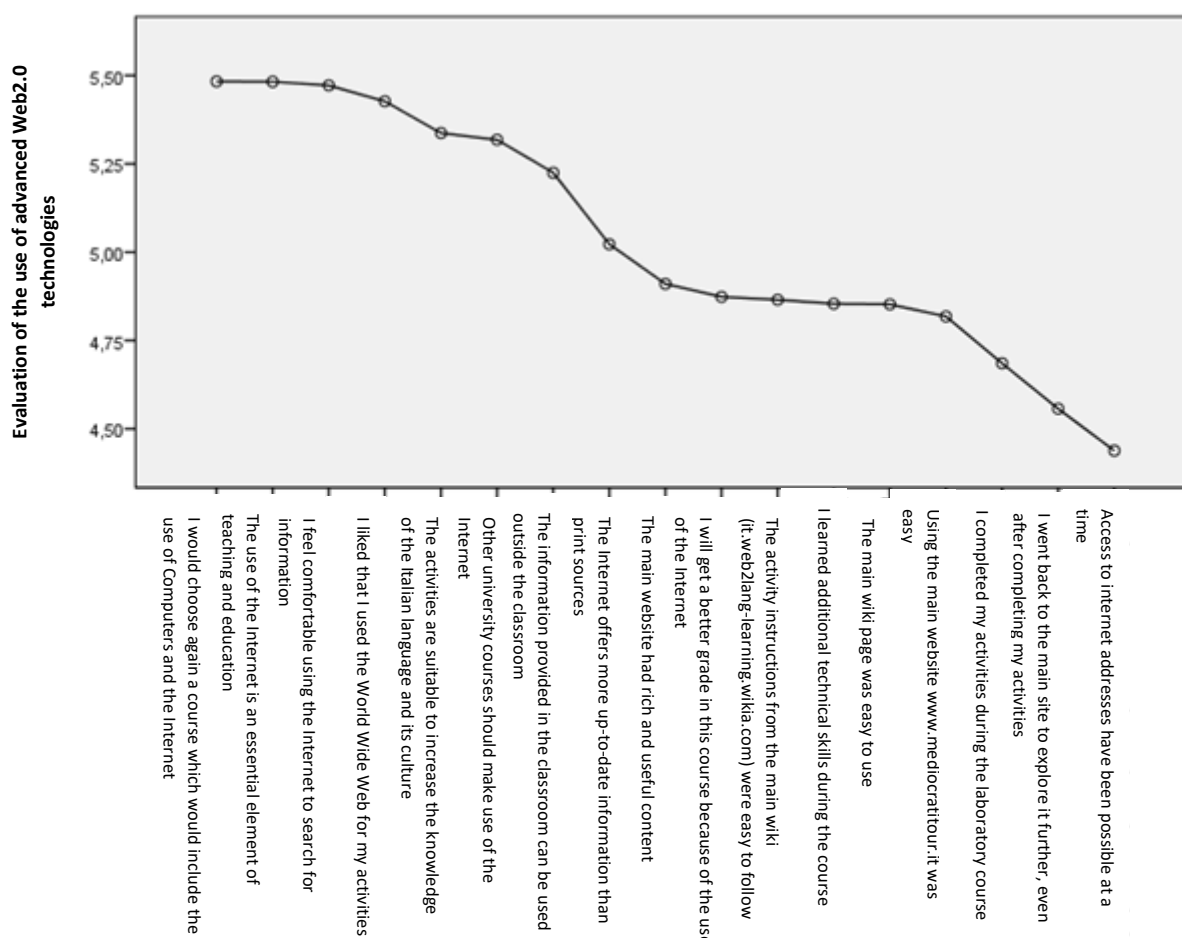
Table 3: Variance Analysis (ANOVA) for the use of advanced technologies

The evaluation of the answers given showed that the students answered in a statistically significant way (F = 7,768, df = 16, 1486, p <0.000).

It appeared from the questionnaire completed by our students that they were satisfied both with the wiki environment, on which the activities were developed, and with the content and instructions given to them. It is well known that collaborative sharing of material and information in wikis environments gives a significant boost to these environments. After all, the planning of the activities had exactly this purpose: through useful and rich content in matters of culture and language to facilitate our students to mobilize and work together.

Even without knowing much or nothing about the HTML language, in online wikis environments, we wanted our students to know, create and finally format content on the Internet. For this reason, they positively evaluated the additional technical skills acquired during the laboratory courses, dealing with up-to-date and authentic material of Italian culture. In addition, this knowledge gained is not limited to the classroom, but is material that they can and want to use outside of it. This is the magic of learning and knowledge when is based on individual and collective active discovery on topics that interest them, concern them, are every day, modern and up-to-date, authentic, and

essential. They can enhance cognitive flexibility and knowledge of foreign languages and cultures by cultivating a positive attitude towards the intercultural approach.

Using a scale from 1 to 6, they stated that in the future they will try to choose a course related to computers and the use of the Internet (M = 5.48, SD = 1.02). They believed that the use of the Internet should be fully integrated into every aspect of the education system (M = 5.48, SD = 0.97), as they felt familiar with it (M = 5.47, SD = 1). They liked to use the Internet for educational purposes (M = 5.43, SD = 1.07) and believed that the activities they engaged in and developed were suitable for increasing their knowledge of both the Italian language and its culture (M = 5.34, SD = 1). In addition, they believed that other university courses should make use of the Internet (M = 5.32, SD = 1.06), while the information obtained during the laboratory courses could be used outside the specific educational environment (M = 5.22, SD = 0.96). Our students rated the information provided by the Internet to a lesser extent in relation to the printed sources (M = 5.02, SD = 1) and the content of the main website (M = 4.91, SD = 1). There is the possibility for a better grade that they may get thanks to the use of the Internet (M = 4.87, SD = 1) and the easy instructions they received (M = 4.87, SD = 1.1). They considered that they have learned additional technical skills (M = 4.85, SD = 1.1) and that they have not had difficulty with the main wiki site (M = 4.85, SD = 1.2) or by navigating the main page virtual content (www.mediocratitour.it) (M = 4.82, SD = 1.2). Few of our students completed their activities during the course (M = 4.69, SD = 1.6), returned to the main website for additional research (M = 4.56, SD = 1.3) and they had easy access to the websites whenever they wanted (M = 4.44, SD = 1.1).

Table 4 shows a one-way analysis of variance (ANOVA) with which we calculated the evaluations of our students for teamwork. The analysis was significant (F = 87.445, df = 7, 12079, p <0.000).

There is a deep need for our students to share the knowledge they gain from the Internet and to interact with their team members, to be critical of the issues under study and to contribute to new ideas, to new ways of expression. This increased learning in Internet environments was experienced in collaborative wikis environments, which offer flexibility and open access, convenience, and collaborative writing in a second language. Elements especially useful for teamwork.
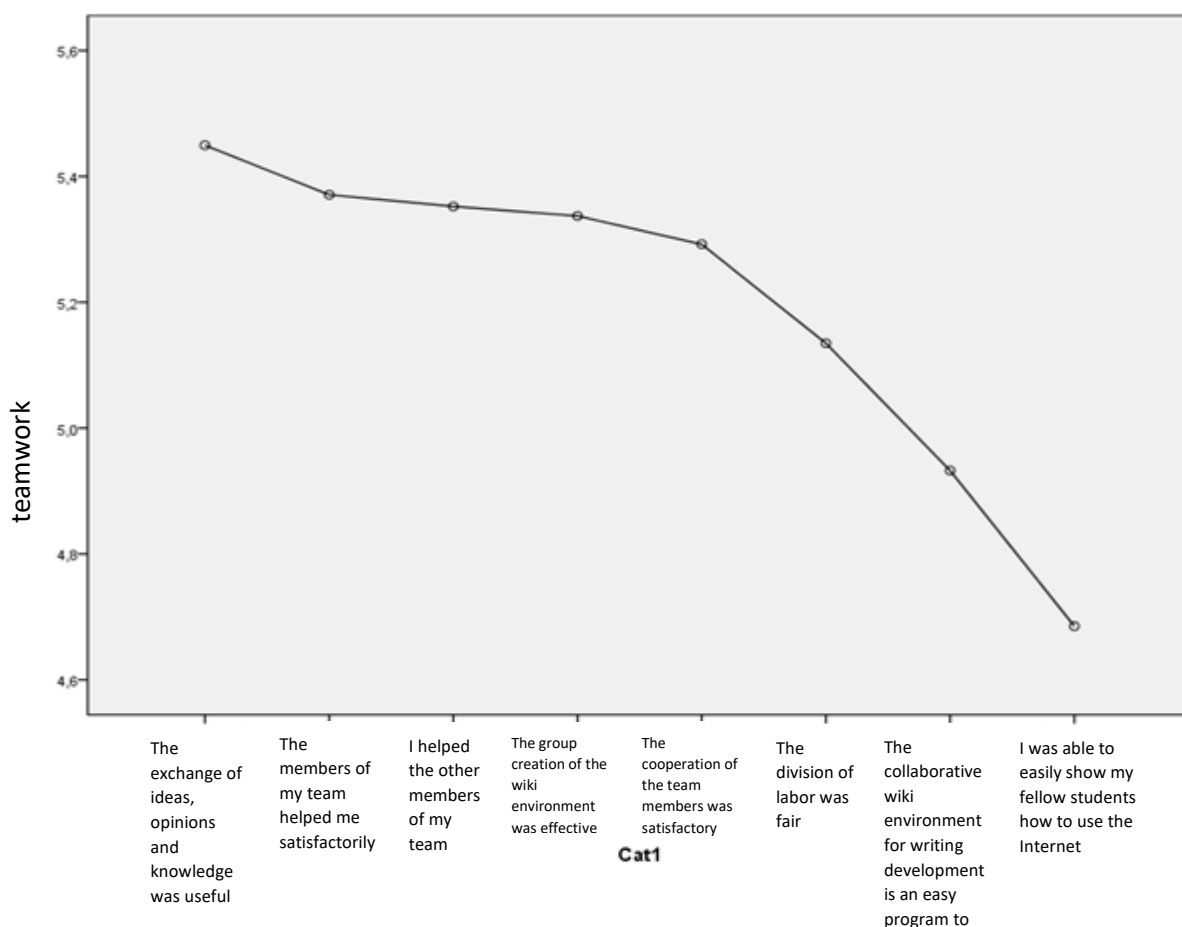
Table 4: Assessment of teamwork through Analysis of Variance (ANOVA)

Participants found, according to Figure 8, that the most useful aspect of teamwork for online educational activities was the exchange of ideas, views, and information between team members (M = 5.45, SD = 0.94).
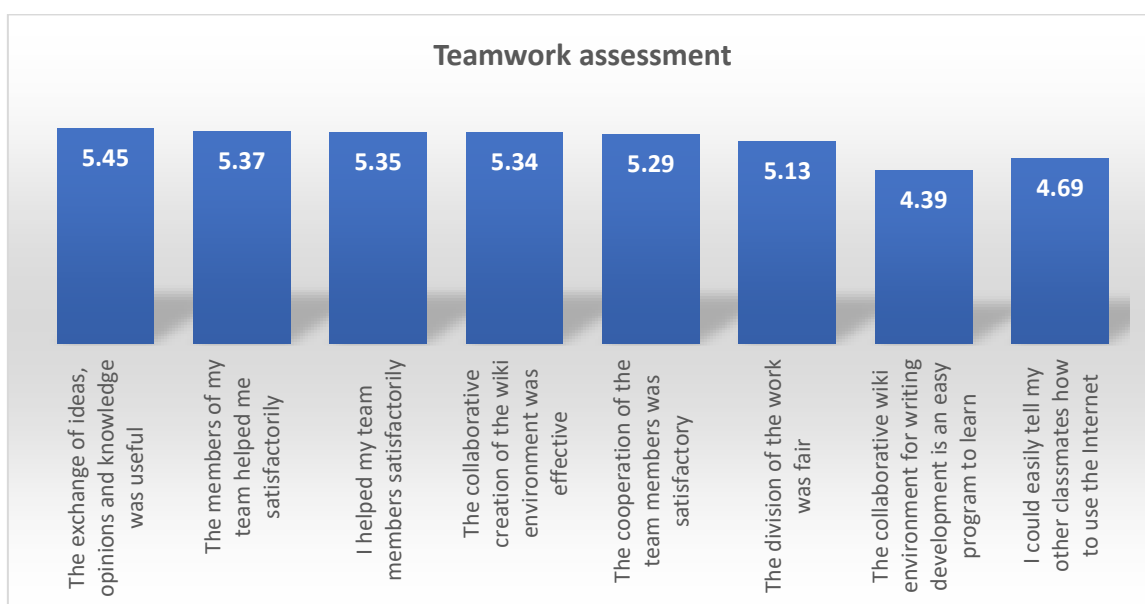

Figure 8: Bar chart with the assessment of teamwork

They were satisfied with the cooperation that developed during the courses both for the help they received from the group members (M = 5.37, SD = 1.06) and for the help they offered to their group (M = 5.35, SD = 0.99). They considered the creation of the wiki, where they developed their activities, effective (M = 5.34, SD = 1.08), their cooperation satisfactory (M = 5.29, SD = 1.06) and the division of labor fair (M = 5.13, SD = 1.2). To a lesser extent they believed that wiki interfaces were easy to learn (M = 4.93, SD = 1.1) and that it was easy to teach Internet use to those members of the team with poor computing skills (M = 4.69, SD = 1.18).

5. Recommendations

5.1 Research limitations
The new internet age is highlighting new forms of culture and learning. That is why we tried to use online collaborative tools that could enrich the knowledge of culture and foreign language. What we need to emphasize is that students should be given alternative ways of learning and building their knowledge on cultural issues, through organized support frameworks using the Internet and Web 2.0 technologies, in small groups. Clearly, the results of this work leave questions that need to be answered: For example, we believe that other activities that develop the same skills can be designed so that we can draw safer conclusions, covering any gaps that have been identified in computer-based teaching. Also, a study on other Web 2.0 technologies can be done, beyond wikis environments, in which our students could develop collaborative web activities to feel familiar and comfortable navigating virtual cultural spaces.

5.2 Research prospects
We have several indications of a positive influence of the digital environment depending on how it is used and depending on the teaching practices adopted. Moreover, given the short duration of the intervention, we should be cautious about drawing any conclusions. Nevertheless, this finding is in full agreement with most of the international literature which concludes that the electronic means of collaborative written expression can make a positive contribution to the teaching of language and culture. The proposed methodology focused on students of the Department of Italian Language and Literature of National and Kapodistrian University of Athens. It is possible, however, to extend and adapt it appropriately to other foreign language sections. Research on learning and teaching Italian as a first language also remains an open challenge. Of course, in this case a different planning of activities is required. Of particular interest is the use on the one hand of students who will join a conventional-traditional teaching of language and culture, and on the other hand students who will use New Technologies to evaluate and compare results. In addition, one of the topics that remains open for future investigation is the evaluation of both written and oral productions of students for the acquisition of the Italian language and its culture.

In terms of planning and selection of activities, it would be interesting for students to be able to choose to navigate virtually and culturally in various other parts of Italy and engage in the cultural tradition there. In addition, the collaboration to develop collaborative online activities for both Greek and Italian students is an interesting extension and complement to the proposed methodology. It would be particularly fascinating to conduct similar research and apply online teaching to other subjects. The extension of the research will contribute decisively to the formation of more scientifically substantiated conclusions for the most pedagogically beneficial use of the Internet in the educational process. It is worth exploring students' attitudes and perceptions about the new teaching approach, e.g. how students respond to online teaching. Finally, it remains useful educationally to investigate whether there is the appropriate technical infrastructure and the appropriate atmosphere at the Greek university, which favor the development of non-conventional forms of teaching.

6. Conclusion

As previously discussed in the paper, our specific research proposal is a case study and is a proposal to contribute to the relevant discussion on whether computers, and more specifically Web 2.0 technologies and wikis environments as well as online, educational and written activities, can make a positive contribution to the teaching of the Italian language and culture. Given these necessary clarifications, we note that the results of our research confirmed our basic hypothesis, according to which online collaborative wikis tools can increase knowledge of culture and foreign language, promote teamwork and familiarize our students with New Technologies and virtual museums.

Firstly, we stated that online teaching through wikis environments has a positive effect on teaching and familiarizing students with Italian language and culture. Researchers (Reinhardt, 2019; DeHaan et al., 2012; Tyrou & Mikros, 2012; Elola & Oskoz, 2010b) have focused on social and cultural qualities of formal online language use and interaction, such as computer-mediated collaborative learning (Warschauer & Kern, 2000), intercultural communication, situated learning, and self-presentation (Lam, 2000). By integrating authentic and up-to-date material in university departments that teach foreign language and culture, the language can be supported by the prevailing general framework and the required range of communication and sociolinguistic skills can be achieved. The information and knowledge that students will receive will not be outdated but will reflect key issues that interest and concern these ages. They will be able to keep up with the current issues, the society, and the culture they are learning. The Internet and New Technologies can meet the expectations and requirements of those interested in information wealth. Still, team spirit seems to be very important. It shows that our students need to acquire a positive and more open way of thinking, to recognize the participatory exchange of views, to work together, having a common goal and predetermined roles. This will develop a strong sense of shared responsibility, friendship, and support for other members, as well as additional motivation for learning. Moreover,

the cooperation of the students and their contact with the New Technologies can encourage an enriched production and exchange of views that will facilitate the acquisition of the language, but also the quality of their writing.

Similarly, we confirmed that our students, after completing their online written activities and engaging with the Internet, felt much more comfortable and familiar when navigating virtual cultural sites, contributing in their linguistic and cultural learning. This research has demonstrated a pedagogical approach in teaching and facilitating L2 writing through wikis opportunities and cultural learning. This is consistent with the results of many studies (Yanguas, 2019; Reinhardt, 2018; Li, 2018; Zheng & Warschauer, 2017; Bikowski & Vithanage, 2016; Stickler & Hampel, 2010), motivating learners to produce written, foreign language. We, also, confirmed that with the collaborative writing of selected activities in the wiki environments of our students, they themselves managed to meet the goals they set each time. This question is also confirmed by relevant literature (Lai, Hu & Lyu, 2018; Li & Zhu, 2017; Aydin & Yildiz, 2014; Storch, 2013; Lee, 2010; Forte & Bruckman, 2006) indicating the learners' engagement in collaborative writing activities.

All in all, comparing the results of the statistical analysis of the survey, one can infer a generally positive evaluation to share the knowledge they gain from the Internet and to interact with their team members, to be critical of the issues under study and to contribute to new ideas, to new ways of expression. This increased learning in Internet environments was experienced in collaborative wikis environments, which offer flexibility and open access, convenience, and collaborative writing in a second language. Elements especially useful for teamwork. The contact with other students can clearly create new motivation for learning and multiple knowledge, for collaboration and initiatives, for being acquainted with art and culture so that the stakeholders themselves can produce multiple interpretations. Obviously, the mediation of New Technologies has changed not only the way of teaching, but also the communication in teamwork, interaction, and collaboration. Starring the student community now, appropriate incentives are created to mobilize all individuals, to transfer knowledge, to carry out an evolving dialogue with culture, language, and relationships.

Based on the results and the data from our research and other previous remarks and interpretive comments, we can point out that the emerging technologies of Web 2.0 and wikis environments have a positive effect on the teaching of the foreign language and its culture, and in this case of the Italian language and culture. This research is significant because it creates the conditions for the creation of alternative learning environments in the context of university language education and a more exploratory perception of students through cultural environments, such as those of virtual museums. Moreover, it contributes greatly to the students' deepening of the issues they are negotiating with and it develops a methodological way of thinking, through the possibilities provided by New Technologies.

This research explored with the creation of positive conditions for cultivating creativity and collaborative, written expression, within a framework of participatory decision-making and experimentation. Finally, in this article, we have underlined the

contribution of the active participation and social interaction of students through teamwork, making the course a pleasant learning experience and gaining additional technical skills and greater familiarity with virtual cultural organizations. In a knowledge-building community, each member can become an expert and an apprentice together. It is obvious that their relationships will be strengthened, they will acquire, in a "cooperative" way, new experiences and skills. In other words, they will share knowledge, relate to the team and, ultimately, become accustomed to acquiring knowledge in a new and open environment.

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Conflict of Interest Statement

The author declares no conflicts of interests.

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