

## Project Description

University: Bologna

Project (Challenge 3): To promote meaningful learning of a foreign language through the integration of the affective component (motivation, attitude, etc.).

### 1. Introduction:

The activities of the research group from Bologna focus on the motivational aspects of the use of technology in language learning and language instruction, with particular emphasis on the concept of gamification, i.e. the application of game-design thinking to linguistic education to make it more fun and engaging.

The research unit decided to focus specifically on Italian language and its instruction. With respect to this, in the year 2016 the following research activities have been started (and are still in progress):

- Promotion of a questionnaire based research in order to investigate the motivational aspects connected to the use of technologies in language learning in university context (Par. 2).
- Review and validation of e-learning experiences in the case of Italian (Par 3.).
- Promotion and validation of in-service teacher education activities in the field of technologies applied in language instruction (Par. 4).
- Development of video games for the L1, L2 and foreign language instruction of Italian; and their validation in classroom activities (Par. 5).

The next sections contain a brief description of the above listed research activities, in term of target groups, methodology, chronogram, dissemination and future development.

### 2. Promotion of a research on the motivational aspects related to the use of technologies in language learning in university context

The survey aims to discover which are student's motivations in learning languages using e-learning technologies. The purpose is to understand what brings people to study foreign languages using e-learning technologies and if this kind of instruments are considered useful or if there are still prejudices.

The work started with a preliminary research, consisted in an interview, proposed to a small number of volunteers, in which were asked many questions about language's learning, motivations in studying foreign languages and opinions about e-learning. The answers to this interview have been then

analysed and manipulated to create the survey, in order to create specific questions and make the survey easy and fast to complete.

We create two surveys: one for Italian speakers which have studied foreign languages, one for foreign people which have studied Italian language. The two surveys are identical and are divided in eight sections:

- Section 1: personal data;
- Section 2: general questions about languages knowledge;
- Section 3: questions about motivation, difficulties in learning, study method;
- Section 4: general questions about e-learning (opinions, gaming, etc); the last questions “Have you ever studied a language, starting from the basis, with an e-learning App?” lead to a crossroads: if the answer is yes, users are redirected to section 5, otherwise they jump to section 6;
- Section 5: in this section questions are more specific: users have to indicate one language among those studied and specified how longer they studied it with e-learning technologies, with which App, what they consider important in this way of learning (such as autonomy in time dedicated to practice, gratification, etc), motivations and opinions about the experience in general;
- Section 6: it contains only one question: “Have you ever used a e-learning App to practice a language you already studied?”. Like section 4, if the answer is yes, users are redirect to the next section, if no, they go to section 8, the last one;
- Section 7: contains the same questions of section 5;
- Section 8: in the last part of the survey, users are requested to say which are, in their opinion, the advantages and disadvantages of studying a language with an e-learning App and for what level of knowledge they think it may be more useful using this kind of technologies.

The only difference between the survey for Italians and that for foreigners is that the second one have only seven sections, because every question is about Italian language.

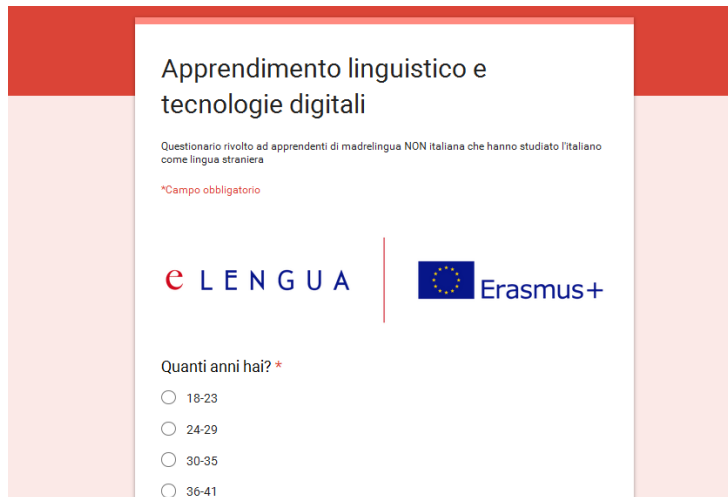
The survey is organized to become more specific in every section, and structured in order to make relevant even the answers of those who never used e-learning App: in fact the last section of the survey let us know if there are any preconceptions towards these technologies.

Once we finished to create the survey, we made a demonstration in a class of the University of Bologna and asked to students to complete the survey and, if they considered it necessary, to make suggestions to improve it. So far we have collected 100 answers circa to the survey and, after some revisions, we spreaded it to a large number of people.

The large-scale distribution of questionnaires started in December 2016; the answers are currently being collected from universities in Italy and abroad, thanks to both direct contacts with language centres and communication via web and social media. Subsequently, the data will be elaborated.

The complete text of the online survey is available in the specific section of the

webpage of the research unit from Bologna ([www.elengua-bologna.eu](http://www.elengua-bologna.eu)). In the same site will be presented by the summer 2017 the first analyses based on these data. Specific publications will be dedicated to the in-depth analysis of the data.



**Figure 1: The webpage of the online survey E-LENGUA.**

### 3. Review of e-learning experiences for Italian

There are several language courses and projects dedicated to Italian language learning with technologies such as (MOOCs and apps as Duolingo, Babbel, ICON, Italian for Beginners by Open University and Introduction to Italian by University for Foreigners of Siena, ect). The variety of online courses and applications for learning Italian gives users a possibility to choose what rhythm they want to study in, where they want to study as well as how controlled they want their learning process to be.

A large amount of studies is dedicated to this topic, however, in the case of Italian language, there is a lack of studies that offer a global perspective on the situation, in order to evaluate the material that is available and to discuss its weaknesses with the aim to project further activities.

For this reason, the research unit decided to examine the available resources; the results of this examination are available on the webpage dedicated to this project: [www.elenguabologna.eu](http://www.elenguabologna.eu). In a second moment, this allowed for the study of the range of the offered exercises and the variety of textual genres, how mechanism of anticipation works within offered textual material as well as correspondence between sequences of language learning to the CERF and a curriculum in order to see whether or not the initially announced final level would have been reached. In addition to that, graphics and usability of MOOCs and apps were taken under consideration, alongside with motivation to continue and eventually finish the course, and phonetical aspects of listening activities.

The research unit from Bologna of the E-LENGUA project organised a conference week dedicated to the topic “E-learning experiences with Italian language” (from 12<sup>th</sup> to 16<sup>th</sup> December 2016) which involved talks related to several aspects of this topic (the program is available on the following link:

[www.ficlit.unibo.it/it/eventi/settimana-di-studio-e-lengua](http://www.ficlit.unibo.it/it/eventi/settimana-di-studio-e-lengua)).

Donatella Troncarelli (University of Siena) introduced the topic from a theoretical point of view with a talk about “Digital technologies and educational models for the instruction of Italian”. One day was dedicated to the issues related to technologies for learning and teaching L1 Italian in schools, with a talk given by Gabriele Benassi (Ufficio Scolastico Regionale Emilia Romagna - Servizio Marconi) about the topic “E-learning between flipped classroom and learning by doing: examples of language education between L1 and L2”. Several instances of MOOC, courses and online material about Italian were presented and confronted. One particular case-study, the MOOC from Brazil was dedicated to the Italian language “Dire, Fare, Partire!” [*To say, to do, to depart!*], presented by its creators and curators Paola Baccin, Darius Emrani, Sandra Gazzoni (Universidade de São Paulo), in the occasion of an apposite meeting.

Antonella Valva (Università di Bologna) gave a talk about the “First steps towards the Italian language and culture with E-LOCAL”; Cristiana Cervini (Università di Bologna) about “Linguistic and cultural experiences in Bologna: incidental learning of Italian with ILOCALAPP”; Elisa Bianchi (Consorzio ICoN) about “The didactic model ICoNLingua: instruction of Italian as foreign language in the virtual classroom”; Clelia Boscolo (Università di Birmingham) illustrated the use of virtual platform in the instruction of Italian as a foreign language in Birmingham.

The initiative was welcomed with great interest and the conference proceedings are currently being compiled; they will be available by the summer 2017.

#### **4. Promotion and validation of in-service teacher education activities relative to the use of technologies in language instruction**

An area of interest within the present project is related to the promotion and validation of teacher education activities concerning the use of technology in learning of Italian at school, for both L1 and L2 learners.

Our attention focuses on teachers, who are invited to use information and communication technologies in order to develop students’ linguistic competence.

In order to develop our activities in this field, the research group initiated a collaboration with the Regional Education Office in Emilia-Romagna and the Fondazione Golinelli, which is concerned with teacher education in the local context ([www.educareaeducare.it](http://www.educareaeducare.it)).

A presentation of the activities within the project was given to the teachers who attended the conference “IntegrAzione” - Reception of migrant students in the schools of Emilia-Romagna, organised by the Regional Education Office in Emilia-Romagna, from the 15<sup>th</sup> to 23<sup>th</sup> November 2016.

In July 2017, a summer school dedicated to the same topic will be held. This gives teachers the possibility to gain a deeper insight into the results of researches carried out within the project E-LENGUA.

One particular research was concerned with monitoring the courses organised by the Fondazione Golinelli, held by the coordinator of the E-LENGUA research

unit at the University of Bologna, dedicated to teachers with focus on the topic “Language education and new technologies” (October-December 2016). The course was based on activities differentiated according to school levels and it focused on the use of technologies in the instruction of writing skills and different text genres; the instruction of oral communication skills with apposite apps about lexicon and gamification techniques.

The proposed activities invited participants to engage in group activities organised according to the context and digital tools were used in order to modify the traditional approach to language instruction. More specifically, the teachers were asked to use cloud systems, apps and tools for collaborative writing; to create podcast or web-radio programs in the classroom.

Additional research (parallel to the didactic meetings which started in November 2016 and are still being held) allowed for the observation of teachers applying in their classroom the knowledge obtained in the meetings they attended. For instance, with respect to the session dedicated to the instruction of oral communication skills with communication and information technologies, it was examined how the participants applied the knowledge they acquired in order to develop spoken competence in Italian classes of different levels and how the employment of new technologies at school may be an efficient way to improve the speech ability among students.

In order to examine in depth this subject, the researcher had the opportunity to attend the course about oral didactics, in which examples and tools useful to realize a podcast in class were provided. The main purpose of this kind of activity is to put linguistic abilities and technical competence into play while studying. In this workshop, all the participants, who worked in groups, had the chance to develop and realize all the phases that are at the base of this didactic project. In this particular case, they were asked to create a podcast with a program called Spreaker.

Subsequently, the researcher had the occasion to work with some teachers who were interested in doing this kind of oral activity with their own classes.

For example, the first institute in which this project took place was a middle school. The subject was geography: the teacher divided the class in groups of three or four students and assigned one of the six paragraphs of the chapter about Africa to each of them. They had to study it and, during their Italian lessons, they recorded their podcast of 3-5 minutes with Spreaker, talking about their argument. At the end of each recording, the researcher shortly interviewed the groups of students and the teacher, too. The results have been very positive because all the pupils had fun with this type of activity and, above all, they learned something new in a different way. Even the teacher was happy about the outcome of the work and said she will surely repeat the experience with another class.

The second time the project was carried on in a high school. The argument of the podcast chosen by the Italian teacher was the *dolce stil novo*, its main authors and themes, compared with the present time. The students had studied previously the lesson and, in class, they had to record themselves while speaking about that topic. They divided their work, established five groups and chose a presenter, whose aim was to introduce each part and help

the speakers keeping the talk active and interesting. Initially, the recording was quite 'linear' because they did not understand very well what the rhythm of the podcast might be because they were orientated towards traditional oral tests. Then, the situation changed. After some little advice, the participants succeeded in making their speech more entertaining. Finally, the researcher gathered their opinions about this kind of activity, that were totally positive. Due to the type of their course of study, namely Communication, they were accustomed to organize group works, video or public presentations, based on the so called Cooperative Learning. So, speaking in a microphone did not represent a problem for them. Finally, the researcher interviewed the teacher who considered their students' work a success because she thought they succeeded in expressing their concepts clearly and accurately. Other activities of monitoring and validation are still in progress.

#### **5. Creation and validation of videogames for the instruction of L1/L2 Italian, or Italian as a foreign language**

An important part of the activities of the E-LENGUA research group of the University of Bologna was the investigation on the possibility to realise products such as gamification of teaching Italian to foreigners using G-suite and Scratch.

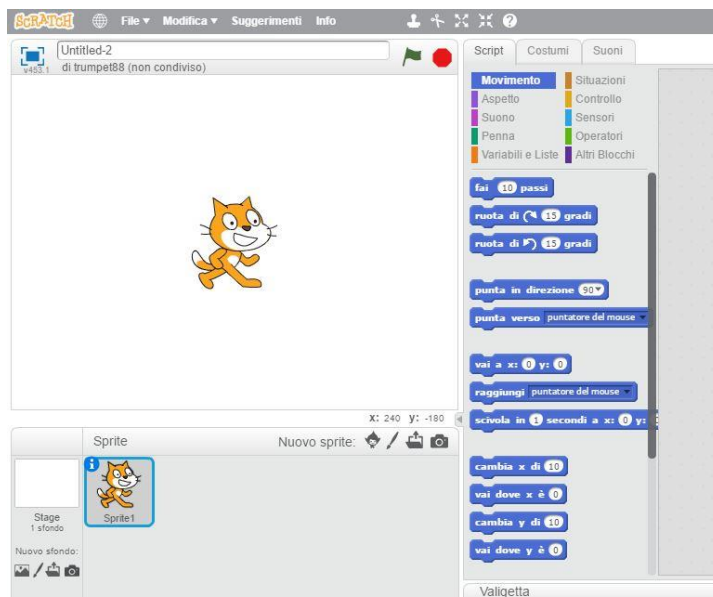
In this first phase of our research activity (until December 2016) the focus was placed on the feasibility study on gamification products for the teaching of Italian and the development of prototypes for video games. In the year 2017 the prototypes will be further developed, validated and spread across schools. According to one of the most common definitions, «"Gamification" is "the use of game design elements in non-game contexts» (Deterding et alii 2011: 10). This strategy is now widespread and is used in the labour market, in the didactic method and also to promote better social behaviours. The main benefit of this strategy lies in the fact that it increases the motivation to carry out otherwise unsatisfying tasks. The goal of gamification is to apply basic elements of video games to real-world activities, in order to harness the motivational power of games. In summary: «Gamification is using game-based mechanics, aesthetics and game thinking to engage people, motivated action, promote learning, and solve problems» (Kapp 2012: 10).

Gamification has already been used several times in education in general and in language teaching in particular. Here it was investigated whether two widely used tools for e-learning could be useful to apply gamification in teaching Italian to foreigners. These tools are the G-Suite for Education apps and the Scratch software. The main reasons of interest of these software lie in their ease of use and in the fact that they are totally free and widely available. Given their characteristics, it also seemed relevant to this analysis to investigate whether these tools would allow to gamify a language course in a quick and easy way, without the need for IT experts or games industry creatives.

As regards the Google apps, the analysis of their characteristics has led to the conclusion that they allow to apply or imitate some of gamification strategies but overall they are not suited to this purpose. In detail: Sheets can be used by the teacher as a control centre to assign points and badges to students and

follow their progress in great detail; Forms can be used to create quizzes with a score; Slides can help build a story and it can be used in several creative ways; Classroom is a platform through which you can easily share the tasks created with Google apps and give feedback after they have been completed by the pupils. Nevertheless, Google apps have two major flaws that lead to advise against their use with the purpose of gamification. First of all, they do not allow you to automate many fundamental gamification processes: for example, you cannot automatically create a leader board that is updated as the student performs the activities. In addition, the main flaw of these apps is that they do not allow you to create an organic, coherent and well-structured product, as a video game should be. Even using all apps in an integrated way you could only create a poor variety of disconnected and barely playful activities. The only one who could hold it all together is the teacher, through a story mainly built outside the game. If the teacher's intervention must be so invasive and continuous, it is worth asking what using the software provided by Google is for. Some of the best examples of gamification of education were implemented without any computer equipment and, despite their potential, Google apps seem useful to slow down rather than speeding up the adoption of this strategy.

As regards Scratch, the definition of this software is sufficient to understand that it is not fit for gamification. In fact, it is a tool created by the MIT Media Lab to teach children to program. Scratch is an extremely simplified visual programming language that allows you to quickly create simple stories, animations and video games. However, it is sufficient to use Scratch for a few minutes, or to examine the several projects shared by users on the official website, to understand how unsuitable this software is in order to create an extended game for language learning and to apply gamification strategies. Scratch, in fact, allows you to create small and extremely simple products, shareable on platforms such as Classroom but essentially disconnected from each other. It is not possible either to create a game with more than one level or to connect individually created levels, or to create a leader board: in the games created using Scratch you can only see the score obtained on the spot, while you cannot store the users who have played there and their scores. Then, you can use Scratch only to create small and aesthetically limited games and animations; furthermore, if you want to create a leader board, the activities must be conducted in the presence of a teacher who will mark your scores. Therefore, even though it has a greater creative potential than Google apps, Scratch is still a tool that does not allow to create an extensive, coherent and aesthetically attractive game which allows satisfactory and independent gaming experience. The only proper use of Scratch, therefore, is the one for which it was created: teaching children to create games or animated stories. Using Scratch in place of children and to create unattractive poor products is clearly disadvantageous: the resulting products would definitely have a negligible potential of gamification.



**Figure 2: Example of the screen of Scratch.**

Despite these limitations, it was possible to propose some prototypes of videogames and share them with teachers thanks to the collaboration of the Regional Education Office Emilia Romagna. This allowed launching the first experimentations in classrooms with products developed for lexicon learning. The development of products with new and more appropriate platforms of gamification is currently being investigated and it will be part of our agenda in 2017, up to the conclusion of the project.

In order to further elaborate on these issues and promote the discussion between teachers, a conference dedicated to gamification within the E-LENGUA project will be held in Bologna, in autumn 2017.

## 6. Development of the project and Chronogram

To sum up, the main developments in the project in the year 2017 will be the followings:

- publication of the conference proceedings “E-learning experiences for Italian language” (June 2017);
- elaboration and analysis of the data obtained via questionnaire about the use of technologies in language learning (January-June 2017); presentation of the results and submission of scientific papers (June 2017 – up until the end of the project);
- teacher education about the use of technology in Italian language instruction with the collaboration of the Regional Education Office (July 2017) and the Fondazione Golinelli (October-December 2017);
- presentation of the results of monitoring activities related to the teacher education courses about the use of technologies in Italian instruction;
- development and testing of the gamification prototypes (March-May 2017; September 2017 – the conclusion of the project);



- organisation of a conference about gamification and Italian instruction (October 2017); subsequently, the publication of conference proceedings;

## 7. Selected Bibliography

- Addolorato A., *Facebook come piattaforma di autoformazione linguistica*, in Borgato R., Capelli F., Ferraresi M. (ed.), *Facebook come. Le nuove relazioni virtuali*, Milano, Franco Angeli, 2009, pp. 176-181.
- Barak M., Watted A., Haick H., *Motivation to learn in massive open online courses: Examining aspects of language and social engagement*, "Computers & Education", n. 94, 2016, pp. 49-60.
- Berger P., Trexler S. (eds.), *Choosing Web 2.0 Tools for Learning and Teaching in a Digital World*, Portland, Book News, 2010.
- Blake R. J., *Brave New Digital Classroom. Technology and Foreign Language Classroom*, Washington, Georgetown University Press, 2013.
- Buckley P., Doyle E., *Gamification and student motivation*, "Interactive Learning Environments", 22 (6), 2014, pp. 1-14.
- Caon F., Serragiotto G. (eds.), *Tecnologie e didattica delle lingue. Teorie, risorse, sperimentazioni*, Torino, UTET, 2012.
- Cervini C., *Apprendere le lingue a distanze variabili: un approccio umanistico*, Macerata, EUM, 2015.
- Coccoli M., Cotroneo E., *Un'esperienza d'uso di Ning per la didattica dell'italiano L2*, in Ranieri-Manca 2013: 149-155.
- Cotroneo E., *E-learning 2.0 per apprendere e insegnare l'italiano L2: i Social Network, Facebook e le tecniche didattiche*, "Italica Wratislaviensia", 4, 2013, pp. 37-57.
- Cotroneo E., *I Social Network nella didattica dell'italiano L2*, in La Grassa-Troncarelli 2016: 86-118
- Deterding S., Dixon D., Khaled R., Nacke L., *From Game Design Elements to Gamefulness: Defining 'Gamification'*, in Lugmayr A., Franssila H., Safran C., Hammouda I. (eds.), *Proceedings of the 15th International Academic MindTrek Conference Envisioning Future Media Environments*, New York, ACM, 2011.
- Diadori P., Palermo M., Troncarelli D., *Insegnare l'italiano come seconda lingua*, Roma, Carocci, 2015.
- Fedorovych M.A., Mozghova Y.V., *Distance language learning: the key aspects of successful implementation*, "Modern Information Technologies in the Sphere of Security and Defence", n. 3 (24), 2015, pp. 145-150.
- Fini A., *Ambienti tecnologici per il Social Networking*, in Fini A., Cigognini, M. E. (eds.), *Web 2.0 e Social Networking*, Trento, Erickson, 2009, pp. 157-164.
- Fratte I., Griggio L., Raggi V., Zatti B., *Italiano L2 online: la tecnologia a servizio di un apprendimento significativo*, in Capuzzo C., Duso E. M., Marigo L. (eds.), *Insegnamento dell'italiano L2/LS all'Università. Nuove sfide e opportunità*, Padova, Il Poligrafo, 2010, pp. 281-322.
- Fratte I., *Il Mobile learning e le nuove frontiere per la didattica delle lingue*, in La Grassa-Troncarelli 2016: 118-135.

- Fratte I., Jafrancesco E. (eds.), *Guida alla formazione del docente di lingue all'uso delle TIC. Le lingue straniere e l'italiano L2*, Roma, Aracne, 2014.
- Gatto N., *Dimensioni temporali nell'apprendimento a distanza*, in Buffagni C., Garzelli B., Villarini A. (eds), *Idee di tempo*, Perugia, Guerra, 2011, pp. 297-303.
- Giglio A., *Le tecnologie per la didattica per l'apprendimento dell'italiano L2: strumenti e attività pratiche*, "Italiano a stranieri", n. 17, 2015
- Jafrancesco E. (ed.), *Apprendere in rete: multimedialità e insegnamento linguistico. Atti del XVIII Convegno Nazionale ILSA*, Firenze, 21 novembre 2009, Firenze, Le Monnier, 2010, pp. 9-22.
- Kapp, K.M., *The Gamification of Learning and Instruction: Game-based Methods and Strategies for Training and Education*, San Francisco, Pfeiffer, 2012.
- La Grassa M., Troncarelli D. (eds), *Orientarsi in rete Didattica delle lingue e tecnologie digitali*, Siena, Becarelli, 2016.
- Liua Y., Holdena D., Zhenga D., *Analyzing students' language learning experience in an augmented reality mobile game: an exploration of an emergent learning environment*, "Procedia - Social and Behavioral Sciences", n. 228, 2016, pp. 369-374.
- Loiseau M., Cervini C., Ceccherelli A., Masperi M., Salomoni P., Roccetti M., Valva A. Bianco F., *Exploring the connections between language learning, personal motivations and digital letter games : the case of Magic Word*, in CALL communities and culture – Short papers from EUROCALL 2016, being printed.
- Lombardi I., *Game [not] over. I videogiochi come strumenti per la glottodidattica ludica*, Perugia, Guerra, 2013.
- Lombardi I., *Motivare la classe di lingue. Tra psicolinguistica e game design*, "EL.LE", Vol. 2 – Num. 3 – Novembre 2013.
- Maestri A., Polsinelli P., Sassoon J., *Giochi da prendere sul serio. Gamification, storytelling e game design per progetti innovativi*, Milano, Angeli, 2015.
- Maggini M., *Tecnologie didattiche per la L2*, in Diadori, P. (ed.), *Insegnare l'italiano a stranieri*, Milano, Mondatori Education, 2011, pp. 155-176.
- Mariani L., *La motivazione negli apprendimenti linguistici. Approcci teorici e implicazioni pedagogiche*, "Italiano LinguaDue", n. 1. 2012, pp. 1-19.
- Petruzzi V., *Il potere della Gamification. Usare il gioco per creare cambiamenti nei comportamenti e nelle performance individuali*, Milano, Franco Angeli, 2015.
- Ranieri M., Manca S. (eds.), *I Social Network nell'educazione. Basi teoriche, modelli applicativi e linee guida*, Trento, Erickson, 2013.
- Rotta M., *I MOOCs e l'apprendimento delle lingue online: sfide, prospettive e criticità*, "Insegno italiano L2 in classe", 1, 2014, pp. 20-30.
- Salomoni, P.; Roccetti, M.; Loiseau, M.; Masperi, M.; Zampa, V.; Ceccherelli, A.; Cervini, C.; Valva, A., *On the design of a word game to enhance Italian language learning*, in: *Proceedings of 2016 International Conference on Computing, Networking and Communications (ICNC 2016)*, Piscataway (NJ), IEEE Communications Society, 2016, pp. 1- 5.
- Santos Green L., *Language learning through a lens: The case for digital*

- storytelling in the second language classroom*, "School Libraries Worldwide", Volume 19, Number 2, July 2013.
- Sheila D., Inkoom L., *Gamification : a motivational tool for achieving serious tasks*, Saarbrücken, GlobeEdit, 2014.
- Shuler C., Winters N., West M., *The Future of Mobile Learning*, Paris, UNESCO, 2012.
- Trentin G., 2008, *La sostenibilità didattico-formativa dell'e-learning. Social networking e apprendimento attivo*, Milano, Franco Angeli.
- Villarini, A. (ed.), *L'apprendimento a distanza dell'italiano come lingua straniera*, Firenze, Mondadori/Le Monnier, 2010, pp. 59-103.
- Zichermann G., Cunningham C., *Gamification by Design. Implementing game mechanics in web and mobile apps*, Beijing, O'Reilly, 2011.
- Zichermann G., Linder J., *The gamification revolution. How leaders leverage game mechanics to crush the competition*, New York, McGraw-Hill Education, 2013.

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