

TEACHING COMPETENCES FROM VIRTUAL ENVIRONMENTS WITH AN INTERCULTURAL PERSPECTIVE: THE E-CIVELES PROJECT



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Digital Competences and Intercultural Values in e-Learning Environments

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Layout:

Laura López Romero & Maria Florindo

Cover:

Marton Kegl

Revision and coordination:

José Jesús Delgado-Peña (jdelgado@uma.es), María Purificación Subires-Mancera & María Florindo

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Part I

The Project

I.1. Introduction

In the 21st century we are witnessing the raising and resulting expansion of new resources and methods for teaching and learning across Europe through the use and integration of new technologies and new ways of processing and disseminating information. These rapid technological changes in their form and use are opening new horizons for those people who want to improve their competences and remain active in the field of lifelong learning, especially in segments of the population with low digital competencies such as people of mature age (Population +55) or immigrants from low-tech areas.

These technological elements are focused around the creation of a set of video games integrated into a digital platform in such a way as to stimulate, firstly, the acquisition of digital competences and, secondly, the stimulation of cognitive functions and linguistic competences for the segment of the population targeted by this proposal as final beneficiaries. For these video games, 3D models of some European cities will be created, which players will have to *visit* in order to collect historical and

heritage information and take on tests in order to complete the game.

Therefore, the specific purposes of this project are:

- To create a virtual platform containing, on the one hand, a database of existing resources in the field of e-learning, spatial orientation, language and cognitive stimulation, and, on the other hand, new resources and materials created specifically to promote such learning. These resources will be based on the creation of video games that will also promote heritage awareness, interculturality and social integration.

- To create a practical guide for educators of the final target groups (population +55 and immigrants) to be used as a guide for developing training sessions in the field of interculturality and social integration with practical exercises, recommendations as well as a curriculum that favours both face-to-face and virtual learning through the project platform.

As general objectives, we want:

- To promote the improvement of digital, linguistic and cognitive skills of the target groups
- To foster social inclusion by raising awareness of the historical and cultural Heritage in a European context

- To stimulate teacher updating in this field.

The wide presence of these groups in Europe and the need for their social integration and the improvement of fundamental competences reinforce the need for this strategic partnership at a transnational level.

I.2. The Consortium

The e-Civeles Project has been carried out by the following european institutions:

- AULA DE MAYORES DE LA
UNIVERSIDAD DE MÁLAGA, Málaga, SPAIN
(Coord.)

- BIBA - BREMER INSTITUT FUER
PRODUKTION UND LOGISTIK GMBH,
Bremen, GERMANY

- TREBAG, Nagykovácsi, HUNGARY

- UNIVERSITÉ DELLE LIBERETÁ DEL
FVG (ULE), Udine, ITALY

- UNIVERSIDADE SÉNIOR DE ÉVORA
(USE), Évora, PORTUGAL

- INTEGRA INSTITUT, Velenje,
SLOVENIA

I.3. What can you find in this guideline?

The main contents of this publication are based on the following issues:

1. Information and a structured guide on intercultural competences, definition and objectives of the intercultural perspective in the educational field.

2. Methodology for teaching with ICT and other free educational materials (for example, from the new database);

3. Indications on how to use and apply the aforementioned aspects in the daily work and in the thematic area that is part of this project: interculturality, favouring also other basic competences (digital, linguistic, etc.) that help to improve the life quality of the project's target population and its integration into the society;

4. Recommendations related to the specific nature of the final group of the project's beneficiaries, students over 55 and immigrants with low digital skills;

5. A series of practical exercises that support the competences mentioned above from an intercultural perspective. They will consist of a set of cards with the basic information necessary for its implementation in any classroom.

Also, a curriculum (syllabus) for a training course for trainers based on the theoretical contents, recommendations and exercises of the first part in combination with the use of the virtual platform and the tools it contains (database, video games, communication elements 2.0),

I.4. Project Results

I.4.1. Virtual platform for trainers and users

A virtual platform for trainers and users in the form of a website (available at www.e-civeles.eu) has been created as a repository of

several interactive elements such as: 1) a database containing information and educational materials (resources and tools) within the scope of the project's objectives and coming from partner organisations and collaborating institutions, as well as from other public and private institutions which offer free access resources in order to be applied/adapted according to the project's objectives. This database have different related information in a clearly structured form, thus facilitating its online access; Moreover, it is possible to carry out searches using specific criteria such as the gaming language, the type of skills you are looking for (in line with of our project), or the type of game, among others. This database is available in: <https://e-civeles-databases.eu>; 2) a set of video games oriented towards Population +55 and immigrants based on 3D digital scenarios from four European cities with activities to promote digital competences, spatial orientation, linguistic and cognitive stimulation, from the perspective of interculturality and social integration You can access this video game at a link: www.e-civeles.eu; and 3) other resources of interest and reinforcement, such as communication tools (e.g. Facebook) and other resulting and necessary materials (e.g. user guide or practical guide for trainers, among others), also available at www.e-civeles.eu.

I.4.2. Database

As stated before, the database is based on a selection of training materials from previous

EU projects in all the institutions involved, as well as other free and open access materials provided by public and private institutions (NGOs, foundations,...), seeking a more intersectoral character in terms of the results of the Product in favor of its transferability. The compilation, classification and structuring of their contents will be both feasible and meticulous, ensuring that most of them have a Creative Commons license, specifying at all times the source of the same. In this way we will give greater visibility and better accessibility to practical materials that can be used in the project (competences learning: digital, geospatial, linguistic, cognitive stimulation and/or intercultural learning).

In our case we will pay special attention to materials that we consider especially targeted to the final beneficiary public of the project.

It will consist of an on-line, easy-to-access, Internet-based query in all consortium languages, with a clear structure and user-friendly interface (such as an intuitive and easy-to-use search engine using keywords and other parameters). It will contain a total of at least 60 entries where materials / resources are classified and evaluated according to a predefined system (template) in accordance with the guidelines of the principal responsible (P6 INTEGRA). It will also offer the potential possibility of being able to be expanded by the action of external collaborators at later stages and can be used in the education of people +55 and immigrants throughout Europe, ensuring their sustainability and transferability. Its greatest innovation is to

serve as a compendium of existing materials, following the EU guidelines regarding the use of knowledge and previous practice available, but through a friendly virtual environment and specialized in a subject and public of great interest at European level.

I.4.3. Videogames

Video games created in the framework of the e-Civeles project are inspired by the potentialities and advantages that gamification offers from the digital field in order to improve learning processes. They will consist of orientation and resolution of tests in four virtual 3D scenarios that represent the historical city centres of different cities with relevant cultural heritage in the partner countries: Évora (Portugal), Antequera (Spain), Udine (Italy) and Velenje (Slovenia). All of them stand out for their historical value at different times, serving as significant milestones in the history of Europe:

Romanization and Imperialism in Évora, Middle Ages and a melting pot of cultures in Antequera, the Renaissance flourishing in Udine and the Industrialization and Socialism periods in Velenje. They are also not so well-known cities at a European level, which favours their promotion to be potentially in tourist routes. In the virtual recreations of their historical centres, 3D models of their main monuments will be added.

Players must get around the historical center streets and squares, looking for significant monuments where they will find information about them by a QR-Code as well as some

photographs. The more monuments and photographs they find on their way, the more information they will have about the history and main historical sites of the city.

The aims intended to reach with this videogame are various: (1) improvement of digital competences, since participants are engaged in a three-dimensional spatial environment, in a digital world that approaches them to a real setting, by using mouse and keyboard, as a principal interface; (2) enhancement of orientation competences, as they are located in a three-dimensional virtual environment, where they must go around to find some places; (3) fostering cognitive functions, as they must carry out a set of tasks, and collect and organize information; and (4) better understanding of the historic and artistic heritage of a specific city. To summarise, the objective of this videogame is to achieve a wider range of competences in line with the technological development of our society today.

The player must move looking for clues and quizzes mainly based on historical-patrimonial contents, but also oriented to the acquisition of other competences (cognitive stimulation, language learning).

For its creation, specific software as UNITY will be used.

Part II

Theoretical context

II.1. Social inclusion and education as the basis of the e- Civeles project

II.1.1. e-Civeles theoretical approach

Universities were born in Europe in the late Middle Ages accompanying the transition from feudal organization to urban life. In the global society of knowledge, holistic university education must promote nowadays, among other functions, how to individuals should learn to live together (Delors 1997). In the e-Civeles project, university, research centres and companies join forces and promote equitable social models in which citizens actively participate by implementing strategies that, like the one we present, help strengthen intergenerational communication and between people belonging to different cultural contexts. Since the framework of the European Union, alliances are strengthened in order to go beyond a kind of modern citizenship that is based on the differences between social inclusion and exclusion, we propose to educate in favour of a citizenship based on the human factor and on personal relations (Donati, 2002). Beyond the transmission and generation of knowledge, higher education means an organized social effort whose horizon is the management of human potential to achieve its

maximum development, on the assumption that all human beings are animated by a permanent impulse to develop their capacities and abilities, which we call transcendancy (Wilber, 2000).

The Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning (2006/962/EC) emphasizes aspects such as personal fulfilment, active citizenship, social cohesion and employability in the society of knowledge. From the paradigm of lifelong learning through the acquisition of competences, these eight key competences are defined: mother tongue communication; communication in foreign languages; mathematical competence and basic competences in science and technology; digital competence; learning to learn; social and civic competences; sense of initiative and entrepreneurship; and awareness and cultural expression. The competence in awareness and cultural expressions involves providing our students with the skills necessary to know, understand, appreciate and value with a critical spirit, and also with an open and respectful attitude, the different cultural manifestations, and to use these manifestations as a source of personal enrichment and enjoyment and consider them as part of the wealth and heritage of

peoples. Nowadays, in the territory of the European Union we educate for respect and understanding between different cultures. In this sense, the e-Civeles project especially deals with competence in cultural awareness and expressions, and in both social and civic competence; it also promotes competences for learning to learn, digital communication, and for promoting a sense of initiative and entrepreneurship.

As Salazar Bondy states, "[E]l ideal no es que la Universidad sea educadora de la comunidad, ni siquiera en la comunidad, sino que la comunidad sea educadora con la universidad" (Salazar Bondy, 1988). By fostering a paradigm shift, this aim guides the association of the institutions that participate in the e-Civeles project via the proposition of reflections, actions and methodologies that promote respect and the values of intergenerational coexistence among people from different origins.

When we consider the challenges for education in the 21st century, we agree with Oraison, according to whom, "[l]a posesión de un derecho no es suficiente para ser considerado libre e igual en el momento de decidir acerca de asuntos públicos" (Oraison, 2011). The construction of fairer society depends on the development of equitable models that face with justice the imbalances existing in it. Justice as equity to serve the disadvantaged citizenry (Rawls, 2002). In other words, the aim is to start to shape equitable models, not egalitarian ones.

Thus, when within the e-Civeles project we are committed to inclusion, we consider promoting opportunities for two social groups that are particularly vulnerable at this time in the Mediterranean: immigrants and people over 55 years old. We assume that our project is committed to social equity because it contemplates singularity and human diversity in space, between citizens from different geographical environments; and in time, because is also based on intergenerational diversity.

Our project aims to design and make available to citizens a series of tools that strengthen social inclusion: By doing so, cultural differences will be perceived as opportunities (Ainscow, 2001). This will favour that diverse groups, due to their different geographical origins and ages, will actively participate in the construction of our society and act as subjects of a democratic scenario. At the same time, there will be no place for what Iris Marion Young (2000) calls "internal exclusion." In other words, even when they are "integrated" in the society that welcomes them, they are relegated to "zones of social exclusion." On the contrary, all actors in society must be visible (Hernández and García, 2015).

In e-Civeles we assume that social exclusion is a structural process that denies to certain groups the right to participate (Nussbaum, 2006). Inclusion is a process to learn to live with what is different in other people, it is a strategy in order to achieve the humanization of society; it

implies respect, participation and coexistence. It requires being willing to change our practices so that they become less segregating and more humanizing. Talking about participation is talking about democracy, and in a democratic society one must educate in the democratic values of respect, solidarity, tolerance, cooperation and participation, implying that democracy is learning a lifestyle, but not in its more formal aspects. Hence, a new model is necessary. It should imply legitimate respect and openness to the others in their differences, in the respect for their differences and in the respect for human rights. On the other hand, inclusion has to do with the search for equity, social justice, democracy and compliance with human rights. In other words, it implies taking into consideration the humanization process that supposes living the differences. It is all about recognizing the dimension of citizenship that surrounds the effective inclusion of every person. In this sense, citizenship, understood as a dynamic concept, requires at different moments of the life and social cycle the implementation of strategies that maintain and facilitate inclusion (Subirats and Pérez Salanova, 2011). Two of the objectives that should be permanently present in the strategies of inclusion of public policies are not losing the recognition of the full development of citizenship—in groups such as senior citizens—and achieving recognition in other groups—such as migrant people arriving to new communities.

In this project, we favour a model of acculturation that seeks cultural enrichment in a double sense: both individuals joining the community and native individuals increase their cultural values because we start from the belief that interaction between immigrants and the target community provokes changes in the social contexts at all levels. The adopted strategies of acculturation play a primary role in the inclusion of immigrants and in co-existence between different cultural groups. The most adequate perspective, we believe, is an inclusive one which involves the maintenance of the own cultural identity and, at the same time, an interest and mutual approach between cultures. The fact of that our society is changing at an extremely rapid pace, becoming in a mosaic of cultures, allows us to affirm that our society is becoming more human, since it is making of relationships the core of its structure. Therefore, the new relationships between citizens of different ages or different cultural backgrounds are providing a unique occasion to achieve a society that is based on respect, co-existence and participation.

The migratory experience is understood as a process of ecological transition leading to important changes originated in the incorporation to a new context both at a physical and sociocultural level. The migratory process, the change from the own country to a new and unknown one, is a critical event, which becomes one of the most complex events in the life of a human being, which forces them to undergo a

strong readjustment in all the aspects of their life. The concept of migratory experience evolved from a perspective in which the migrant had a passive role into a new perspective they have an active role in the process. It is, therefore, a person with survival and readjustment strategies in a context of cultural changes. Although it is common to think that the effort to adapt to a new society must exclusively come from the newcomers, the receiving society is the one that has a real great capacity of influence, thus reducing many opportunities or, on the contrary, facilitating the process of dialogue and intercultural recreation. The fact that culturally disparate groups work together causes some consequences that can vary depending on the circumstances in which this interaction happens. At first, acculturation was considered a unidirectional process, which consisted of learning a new behavioural repertoire appropriate to the new cultural context and to the abandonment of previous contexts that were not adapted to the host country, which would only affect people moving into the host country. This integrationist perspective, developed in the 1980s (López Melero, 2014), in which those who are different are the ones who are required to adapt to the new situation (because they belong to another culture, because of their age or for any other peculiarity) in a way in which no one is required. They are the ones who must change, who should demonstrate their competences, modify their culture and their ways of doing in order to be considered as "integrated" people.

Meanwhile, the receiving culture does not have to implement any changes at all.

As we call to this perspective of competence, and inclusive and humanizing one in relation to migration, we can apply the same model to the field of senior citizens. Ageing is a universal fact that involves a process of biological and psychosocial changes, which are different in each person. Coping with this stage of life largely depends on their state of health, social conditions and socio-cultural habits. Currently, most studies emphasize the fact that older people should remain active and should co-exist to feel less lonely and more satisfied in their lives. The existence of satisfactory relationships is an element of social welfare, which makes these support networks an adequate indicator of balance within senior citizens. There exists common agreement in the literature that social and interpersonal relationships at this stage of life produce positive effects on the health and well-being of senior citizens. This project promotes active participation as a way to allow senior citizens to increase their cognitive skills and expand their social networks. All this will help improve their wellness.

As a practical concretion of these principles, the e-Civeles project proposes the construction of a videogame. In the line of the aforementioned facts and principles, it is necessary that the videogame respond to building within participants a logical process of thought (Proyecto Roma, López Melero, 2014). In

other words, it is necessary not only to seek to foster culture acquisition but also to take into account both cognitive and metacognitive factors; communication; the development of norms and values, feelings and emotions, with special attention to the value of difference and cooperation; and actions, understood as the way to transform society.

All these factors should be considered, both for the development of the game (by promoting cooperation instead of competitiveness) and for the development of training actions for trainers. Thus, via the dynamics of the game it will be offered an opportunity to know, value and increase knowledge of the Mediterranean cultural heritage, going beyond religious and historical barriers; to facilitate knowledge of communication codes, by implementing cooperative learning strategies; and to undertake transformative initiatives in accordance with the rules of democracy. To sum up, our proposal responds to the needs of a new culture. It is a culture of solidarity, cooperation and respect for diversity. This new culture requires different pedagogies and policies (Ainscow, 2001) to change practices. Without a cooperative and solidary culture, it is impossible to talk about inclusion as a strategy for a humanized society, a society based on personal relationships. Finally, we fully subscribe Abraham Moles's proposal, as we believe that games are a creative experience for that new society.

II.1.2. Glossary

Adult education. Educational activities offered in a formal, non-formal or informal context, which are intended for adults in order to deepen or replace their initial education and training. Its objective can be: a) to complete a certain level of formal education or professional training; b) to acquire knowledge or skills in a new field (not necessarily aiming for qualification); and c) to update knowledge or skills. See also Basic Education and Lifelong Education. (UNESCO, 2007)

Diversity. A characteristic that makes every person different and unique, taking as a basis ethnicity, gender, age, sexual orientation, religious beliefs and other emblematic characteristics of identity (Rappaport, 1977)

Equal opportunities. A way of compensating imbalances between groups and individuals based on the idea of equality. This approach is against equity. See also Equity and Equivalent opportunities.

Equity. The degree of fairness and impartiality of access to education and to the possibilities of education offered to both children and adults. Achieving equity means eliminating disparities based on gender, poverty, place of residence, ethnicity, language and other characteristics (UNESCO, 2007). Equity is considered a more precise process than equality, since it considers

the uniqueness and human diversity in their differences, considering it as an opportunity.

Equivalent opportunities. A concept that tries to overcome the concept of equal opportunities, since it is based on equity and inclusion and not equality and integration.

Exclusion. A perspective of 'forgetfulness' or 'abandonment' (dating back to the 1960's). An exclusion of any relationship and human participation. An invisible society where everyone knew about their existence, but nobody counted on them. However, they did have to comply by the rules imposed by society, although they were not taken into account when creating these rules (Nussbaum, 2006). From this perspective, there were usually two types of exclusions, and active one, which consisted in a direct process of excluding or marginalizing people and different groups, and a silent one, when they were deprived of their rights and duties.

Inclusion. An inclusive perspective. Inclusion is a process to learn to live with other people's differences. It is a process of humanization and, therefore, it implies respect, participation and co-existence. Talking about inclusion requires being willing to change our practices so that they becoming less segregated and more humanizing.

Integration. A perspective of integration (dating back to the 1980's). In education, it is the response from the educational reforms that emanate from the Warnock Report (1978),

according to which people with different abilities are required to be the ones who have to change to be considered as "integrated" individuals, but without changing neither the curriculum, nor the teaching staff, nor the ways of teaching, etc. Three types of integration can be distinguished: a) Physical integration: Satisfying primary life needs; b) Functional integration: Use of public transportation, restaurants, sports facilities, etc.; c) Personal integration: Satisfying secondary and personal self-realization needs.

Lifelong Education. General denomination to refer to a large number of educational activities designed to meet the basic learning needs of adults. See also Adult Education and Long Life Learning. (UNESCO, 2007)

Long life learning. A conception of learning as a permanent process throughout life to meet the educational needs of every individual. This expression is widely used in the field of adult literacy to designate learning processes in many forms and at a variety of levels. See also Adult education.

Migration. The movement of population into the territory of another state or within the same state. It implies every movement of people whatever their size, composition or causes are; it includes the migration of refugees, displaced people, uprooted people and economic migrants (IOM, International Organization for Migration).

Segregation. An assimilationist perspective (dating back to the 1970's). From this perspective, difference and diversity are considered problematic and dangerous and are addressed by a segregating and assistance response, offering special places for assimilation away from other people. Thus, for example, in education individuals are separated in special schools or classrooms.

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II.2. Teaching geospatial competences in adult education contexts

II.2.1. Introduction: Definitions, concepts and relevance of geospatial location

It is vital that any adult education professional has at least basic notions on geospatial competences and geolocation. This is important not only because there are geographical aspects having an impact on the territory, but also because of the cognitive development of the adults who are the beneficiaries of their teaching profession. For the purposes of this paper, we define *geospatial competences* as the competences that derive from the location within the territory or territorial space, i.e., what is originated in a given superficial extension, an enclosed siting and an exact location in our planet.

In this sense, we can also introduce here the concept of *coordinate*, which is very interesting to explain to students and that the Real Academia Española (2014) defines as “las líneas que sirven para determinar la posición de un punto, y de los ejes o planos a que se refieren aquellas líneas”¹. In other words, it is a system that allows that any point on the Earth can be located according to the classification that has

been previously established. Although the aim of this paper is not to go into geographical specifics, such as the different types of systems of coordinates, there are two basic concepts in cartographic representation that need to be understood: latitude and longitude.

Latitude is defined by the Real Academia Española (2014) as “la distancia desde un punto de la superficie terrestre al ecuador, contada en grados de meridiano,”² while *longitude* is defined as “la distancia angular medida en grados sobre el ecuador entre el meridiano de un punto y otro de referencia, actualmente el que pasa por el meridiano de Greenwich”³ (Fig. 1). Therefore, any coordinate will be determined by its latitude (north or south) and its longitude (east or west), expressed in degrees (°), minutes (′) and seconds (″).

The longitude can also be preceded by a minus sign to indicate west and by a plus sign to indicate east. For example, the coordinates of the cities represented in e-Civeles’s videogame platform are as follows:

Antequera: 37° 1′ 10″ N - 4° 33′ 40″ O

Évora: 38° 34′ 21″ N - 7° 54′ 26″ O

Udine: 46° 04′ 00″ N - 13° 14′ 00″ E

Velenje: 46° 22′ 00″ N - 15° 07′ 00″ E

¹ the lines that are used to determine the position of a point, and the position of the axes or planes that these lines refer to.

² the distance of a place in the Earth’s surface of the equator, expressed in meridian degrees.

³ the angular distance, expressed in degrees, on the equator between the meridian of a point and the meridian of a reference point, currently the one at the Greenwich meridian.

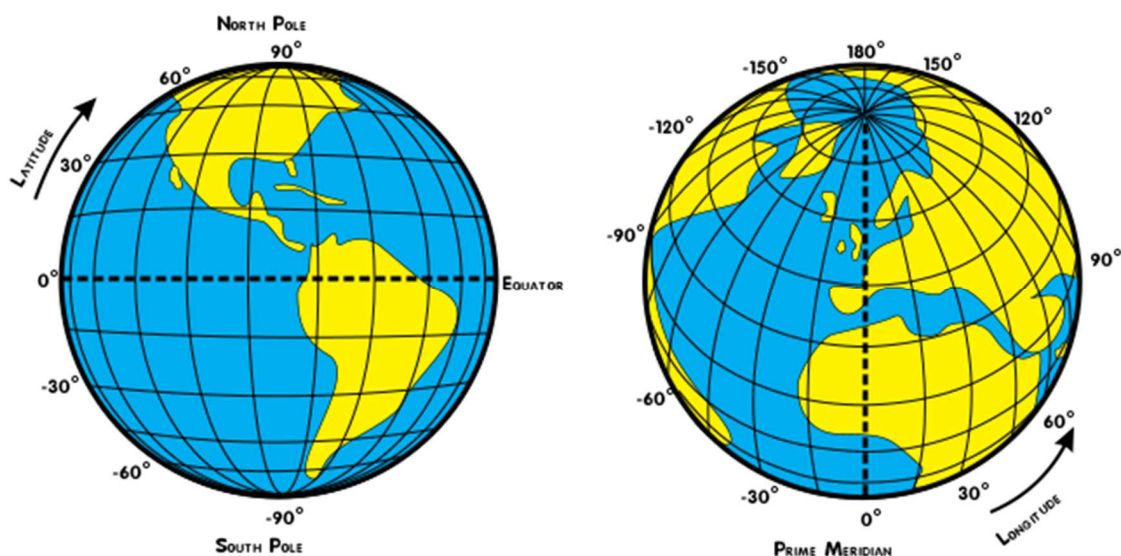


Fig. 1. Representation of the concepts of latitude and longitude. Source: Djexplo. Licence CC0 1.0 Universal (CC0 1.0). Wikimedia Commons.

A small help for students to better remember these concepts is to take into account that, as for latitude, it will always be north latitude when we refer to the north hemisphere, and south latitude when we refer to the south hemisphere; Longitude will be west when the point is located to left of the Greenwich meridian, and east when the point is located to right of it. As an additional help to students, it should be noted that the meridian passes through the London borough of Greenwich and through other European locations, such as the Spanish city of Castellón de la Plana or even the English Channel.

Any point on the Earth's surface according to its latitude and longitude is located

on the sphere that corresponds to our planet. However, as we will discuss later on, geographical applications that can be used for adult education are designed according to a system of conformal cylindrical projection, the transverse Mercator projection. Therefore, it considers the Earth as inserted into and tangential to a cylinder, that is, our planet is treated as an element projected in a cylindrical surface, so that meridians and parallels are represented on a grid-like pattern, as if they were straight lines. Without going into details about this type of cartographic projection, this system is not useful for polar latitudes, which at the same time is not a major drawback, since the areas located within them are usually demographic vacuums.

This system's coordinates, Universal Transverse Mercator (UTM), will represent points on a grid. In short, it is possible, given the latitude and longitude of any place on the Earth's surface, to easily convert it into UTM by using a number of tools that are freely available on the Internet.

There exist many easy-to-perform experiences to help develop geospatial competences in adult education, regardless of students' age. An example of this is a methodology performed in the surroundings of Linköping University (Sweden), where students of a MA programme developed geolocation competences by running free software applications on GPS devices, such as mobile phones or tablets. To do so, some games were organized as a gymkhana event, which, roughly speaking, fostered dissemination, awareness and appreciation of the cultural heritage in the area (Delgado Peña and Subires Mancera, 2016). This is one of the activities that can be included into what can be called *geocoaching*. According to these scholars, "dicha actividad consiste en esconder objetos en el campo o en la ciudad, apuntar sus coordenadas y hacerlas públicas para que otros usuarios puedan efectuar su búsqueda mediante un dispositivo de localización GPS"⁴ (p. 518).

Additionally, there are several online platforms which can be used for users to add, store, and represent their own geographical information, by taking advantage of the

possibilities that the 2.0 web offers (Elwood, 2008) and of the development of Global Positioning Systems (GPS), since they allow an absolute and precise detection of any given point on the Earth's surface (Goodchild, 2007). Virtual itineraries are then created; they can be thematically oriented, combining then geospatial competences and learning of a specific topic. It can also be complemented with map and aerial photography visualization, which is directly linked to cyber trips, of great educational value for the learning and teaching of geospatial competences.

Gómez Ruiz, Lázaro y Torres, and González González (2013) define cyber trips as follows:

"An itinerary or journey over a territory with the available technological means, that is, a digital representation of reality, without any real displacement, showing us the geographical, artistic, historical reality, etc., that takes place in that territory ... It is not a question of replacing the traditional and illustrative fieldwork, but of reinforcing its achievements at a time when we are facing some problems such as the increase in the number of students; the diversification in their initial knowledge, ethnicity and culture; a drastic reduction in budgets; the academic fragmentation of some subjects; the competition of

⁴ the activity is organized as follows: some objects are hidden in the countryside or in the city, their

coordinates are made public so that players can look for them by using a GPS location device.

universities and faculties for students, etc. (Bradbeer, 2007). All these facts have revalued the usefulness of cyber trips.”⁵ (pp. 281-282).

We can conclude that in geography, as De Miguel González states (2015), there are always connections between spatial learning and geographical learning: “entre pensamiento espacial y relaciones espaciales, entre pensamiento geográfico y conocimiento geográfico”⁶ (p. 1321). This constitutes one of the starting points when teaching spatial competences to students, which in its turn will assist them in the processes related to decision taking, territorial analysis and, definitely, understanding situations related to a given territory.

In the video game developed within the e-Civiles project, and taking into account all that has already been mentioned in this paper, we have created virtual sets belonging to four European cities (Évora, Antequera, Udine and Velenje), where players can move freely and create their own itineraries in the city while looking for their main landmarks. In this case, the history of the city and its monuments is the leitmotif of the itinerary each player performs,

which allows them to acquire the competences of geographical orientation that are necessary to successfully complete the game.

II.2.2. Education tools for teaching

geospatial competences

In this section we are going to introduce some ICT tools that are freely available and that students can use to improve geospatial competences related, among others, with map guiding and creating, geolocation, historical chronology, etc.

Google Earth

[Link: <https://www.google.com/intl/es/earth/>]

It allows to visit virtually any place on the Earth and offers high-resolution images, both for computers and mobile devices. Additionally, some cities are also available in 3D, for which guided visits are offered, even its topography can be visualized in 3D, and both distances and areas can be measured. Through Google Street View, which is also available for Google Maps, images of the streets can be visualized, which is

⁵ An itinerary or tour through a territory with all technological resources available, i.e., a digital representation of reality, without implying a real sense of travelling, which shows us the geographical, artistic and historic reality of that territory ... This does not have the aim of substituting the more traditional, illustrative fieldwork, but of reinforcing its achievements when we have to face problems such as an increase on the number of students; diverse levels

of initial knowledge, ethnic group and culture; a dramatic downsizing of budgets; academic fragmentation of some subjects; an increased competence among universities and faculties to get students, etc. (Bradbeer, 2007). All these facts have provided an added value to the utility of cyber trips.

⁶ between spatial thinking and spatial relations, and between geographical thinking and geographical knowledge.

helpful to know exactly how a place looks like before visiting it.

Google Maps, Bing Maps and Maps (iOS)

[Link to Google Maps:

<https://www.google.es/maps/>

[Link to Bing Maps: <https://www.bing.com/maps>]

[Link to Maps (iOS):

<https://www.apple.com/es/ios/maps/>]

Map servers offering geolocated information from virtually any place on the Earth; they can also be accessed through its corresponding applications which run on mobile devices. These servers provide with real-time traffic info, calculation of walking/driving distance (by car, bike, public transportation, etc.). They do not only offer maps, but also provide with information on points of interest, such as underground stations, hospitals and links to panorama images, among many others.

GeaCron, Atlas of World History and TimeMaps

[Link to GeaCron: <http://geacron.com/>]

[Link to Atlas of World History:

<https://www.atlasofworldhistory.com>]

[Link to TimeMaps: <https://www.timemaps.com>]

Interactive historical atlases of great help to teach about history of colonialism and world history from prehistoric times to present.

MapMaker Interactive

[Link: <https://mapmaker.nationalgeographic.org>]

An application that belongs to National Geographic, which allows to create maps by adding objects, such as texts, shapes and captions.

Geocube

[Link: <http://www.geo-cube.eu>]

Available in Spanish, English, French, German, Italian and Turkish. This is a very entertaining tool to learn a variety of facts from social sciences and humanities, such as demography and geography.

II.2.3. Education resources to develop geospatial competences:

Let us remember that the e-Civeles team has developed a database containing several games which allow students to develop the following competences and skills:

- Geospatial and geographical competences.
- Intercultural awareness.
- Cognitive functions.
- Digital competences.
- Language learning.
- Promotion of awareness to immigrants.

In connection with geospatial and geographical competences, which are the focus of this paper, it is necessary to point out some games, which can be of great interest for these competences. They should be used as a

complement for the historical video games that have been specifically created within this project:

Against all odds

[Link: <http://www.playagainstallodds.ca>]

The game places the future player in the role of a refugee facing three possible scenarios: "War and conflict," "In the neighboring country" and "A new life." In turn, each of these sets presents four challenge; the player, with simple and clear rules, must try to solve them as if they were a real refugee or migrant.

Urban Empire

[Link:

<https://www.kalypsomedia.com/eu/605/urban-empire/pc/steam-version>]

Urban Empire is the pioneer of a new generation "of strategy games that combine city builder features with political scheming and adds 200 years of historical progress into the mix, creating a whole new gameplay experience where players must employ strategic planning and political savvy to successfully grow their cities in their role as mayor" (Unerde, 2017)

Cities in motion

[Link:

[https://store.steampowered.com/app/73010/Cities in Motion/?l=spanish](https://store.steampowered.com/app/73010/Cities_in_Motion/?l=spanish)]

Cities in Motion is a business simulation game. Modelled "in rich detail, four of the world's greatest cities – Vienna, Helsinki, Berlin, and Amsterdam – await the steady hand of a planner to manage their transportation needs in Cities in Motion" (Steam, 2011). A second expansion, German Cities, was released in September 2011. It contained two new cities, Cologne and Leipzig.

Concordia

[Link:

<https://boardgamegeek.com/boardgame/124361/concordia>]

Young players will discover the content of the articles of the Human Rights closest to their vital development and incorporate this knowledge into their personal experience. This initiative offers young people a virtual adventure through a video game. It is technically similar to other video games they usually play, and it shows which rights are inalienable to the human being. The need to preserve our freedom, defend justice, act with respect and solidarity are set out from a friendly environment.

The game presents realistic conflicts, possible to live in their real lives, but from the comfort of a virtual world. The goal of this project is, in short, to collaborate with school and families in the transmission of values supported by the Universal Declaration of Human Rights.

GeoGuessR

[Link: <https://geoguessr.com>]

The game uses a semi-randomized Google Street View location and requires players to guess their location in the world using only the clues visible.

Seterra

[Link: <https://www.seterra.com>]

“Seterra is an entertaining and educational geography game that gives” the player “access to over 300 customizable quizzes. Seterra will challenge the player with quizzes about countries, capitals, flags, oceans, lakes and more. Introduced in 1997 and available in 36 different languages, Seterra has helped thousands of people study geography and learn about their world” (Seterra, n.d.).

II.2.4. Final recommendations for adult education teachers and professionals

1) Geospatial competences are key for adult education beneficiaries and, more specifically, for people who are the main aim of this project. Their training undoubtedly promotes older adults’ cognitive stimulation. As regards migrant populations, often coming from rural areas, they should foster their guidance skills in a city context. Therefore, their adaptation to a new setting may be improved through the experiences described herein.

2) It is important to promote the use of geolocation software that tools such as Bing

Maps and Google Maps offer. They can be helpful to ease adult people’s daily life situations and challenges. That is the case, for example, of going to a specific address for a job interview, since this software will allow them to guide themselves in the city.

3) It is advisable to develop practical methodologies that, at the same time, should be based on solving exercises inspired by students’ day-to-day problems. It is also advisable to practice with them in the classroom, so that they can learn how to use the different software applications, and encourage them to use these applications also out of the classroom.

4) Geospatial competences are more effective when linked to contents of interest for students. In this project, they are connected to the history of the territories they live in, which also allows them to get a better understanding of their culture and local traditions. There exist also many other fields that students should be used to, such as sports, environmental protection, travelling and administrative tasks.

5) There are a variety of online games which can help stimulate the development of geospatial competences. Many of these games are not only entertaining, but also educational, and increase students’ motivation. For this reason, teachers should encourage their students to use these games. In this paper we

have discussed about this and shown some of these online games as an example.

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II.3. Teaching digital competences and ICT

II.3.1. Introduction: how teaching ICT to adults has changed

Digital technology as a new subject area can include developing knowledge and understandings of the underlying concepts of information systems, data and computer science, and skills to master digital systems such as coding or programming and, more broadly, computational thinking. During the last 20 years, when computers and digital devices have reached domestic daily use, there has been three different phases in the teaching ICT to adults: digital literacy, web 2.0, new technologies with new devices.

- 1) Digital literacy: the first phase, in which the basics of digital competence for home computers use were taught. Usually, in-class face-to-face lessons programs included an overview of the computer hardware and its external devices (keyboard, mouse, printer), an overview of the operating system and its basic functionalities, an introduction to the use of the most common text processing programs and an overview of the use and configuration of an email box and web surfing through the most common browsers. Usually, the teacher supplied technical information through paper texts and books.
- 2) Web 2.0: with the possibility of fast connection to the internet, a whole series of interactive online tools have been developed, both for communication and interaction, still mostly used on home computers. The teaching methodology in this phase was still in class face-to-face lesson, but without the use of texts or books, having instead a hands-on approach on the different tools. The digital skills then were acquired through the direct use of the online tool.
- 3) New technologies and e-learning: in recent years, in parallel with the spread of smartphones and other portable devices, new technologies and applications have been developed that no longer require basic ICT skills learning. The focus has shifted then from acquiring digital skills for the use of technology to acquire skills to use and take advantage of the services that technology can offer (e.g.: for public administration and services). Multimedia resources and learning environments (platforms, MOOCs, LMS, Social networks) has developed and used as digital tools. In this phase, we have moved from a personal learning environment (I learn for myself with my own device) to a social learning environment (I learn with others in a shared space with through my own device). E-learning is one of the methodologies that can be used for

distance learning through the use of digital tools, let's have a closer look.

II.3.2. E-learning

E-learning can be understood as both the use of information and information technologies "to create learning experiences" (Horton, 2006), both as an interactive method of teaching that allows, through the use of the Internet and available communication technologies, certain relationships to be established between the facilitator (tutor) and a student, but also between individual students in the group.

E-Learning is not only short for "electronic learning", meaning learning through the use of electronic technologies: online learning makes use of multimedia technologies and the Internet "to improve the quality of learning by facilitating access to resources and services, as well as remote exchanges" and remote collaboration (European Commission, 2005).

E-learning is a highly interactive teaching method that allows the provision of training courses through the net. There's no more need of physical space and the challenges of time constraints: with e-learning, all staff can access courses and resources at any time and place, the only indispensable condition being an internet connection. A common mistake that may occur is not to fully understand the potential of online training, often confused with simple digitized content such as presentations, videos or PDFs.

E-learning goes far beyond a simple YouTube video or content uploaded to the Internet: it is a flexible and articulated teaching method in which the use of digital tools increases the effectiveness and efficiency of the training project. The applications of e-learning can be very different:

- courses with in-class meetings where the teacher uses digital learning materials and students can read up on the topic and/or prepare for the next meeting. This is the case of in-class course with assisted e-learning.
- blended-learning format with a few in-class meetings, but, primarily, the courses take place online where all the resources and contents are stored and accessible. The aim of the in-class meetings is getting to know each other and exchange. In this case, blended-learning is a mixture of e-learning and in-class education.
- E-learning-only online classes without personal physical interaction (not very common in adult education, mostly used at universities).

II.3.2.1. The main features and strenghts of e-Learning

An e-Learning training course features three basic principles:

- Flexibility: the course can be enjoyed without any temporal or spatial constraint;

- Interactivity: the user of the course is not a passive spectator but he is called to learn by participating and interacting with the contents through simulations and educational activities;
- Modularity: the presence of individual modules (microlearning) allows the learner to "guide" their training according to their professional or personal commitments and needs.

The main strengths of e-Learning are the following:

- Possibility of using interactive teaching tools: the use of videos, animations and interactive activities allows to capture and keep alive the attention of learners, thus increasing the degree of interest and learning;
- No space and time constraints: the training is on-demand, so that the user of the course can decide independently when and where to access the lessons;
- Greater flexibility of the teaching methods in order to customize the training paths according to the needs of the learners;
- Easy monitoring of the learning process through online courses is possible to evaluate the progress of the learning process of participants.

II.3.2.2. Designing an e-learning course

Four things to consider when designing an e-learning course for adult learners are the following:

- Involvement: adult students, in order to be actively involved in the course, must be involved in the learning process. Interactivity and interactions play a key role in involving learners. Interactivity creates an exchange between the student and the e-learning course. It is therefore necessary to provide meaningful interactions where possible and to create an advanced learning environment. In addition, giving them control of their own learning will keep them motivated and committed.
- Problem-central approach: adult students are interested in problem-centered learning and the practice of what needs to be done. There is a difference between what they need to know and what they need to do. It is therefore essential to create practice environments that help adult learners to play their role and keep learning attention.
- Experience: adults are focused on the experience of the tasks and their final result as well as on their respective activities. Memorization activities do not work well with adults, on the contrary, courses with real-life scenarios and a good number of exercises are highly

appreciated. Adults do not prefer linear courses, but branched scenarios.

- Realism: adult students tend to immediately map learning to the real world. Therefore, the applications and benefits of real life must be linked to the e-learning course. In the light of this, it is essential to incorporate practical problems into the course, so that the adult student will be able to immediately identify the benefits that the course will allow him to reap in their real life.

The presence of a facilitator is essential for online learning. The role of facilitators is different from that of a teacher in a traditional classroom. The role of expert with a deeper knowledge of the subject is only one of the roles assumed by the facilitator. A facilitator not only has to transfer his knowledge, but has to create a space with activities and resources that will help participants to develop skills. The acquisition of skills is particularly important in teaching professional subjects in which participants must develop practical skills, operational knowledge and become competent in a working environment.

II.3.3. The role of the facilitator

Gilly Salmon, an e-learning professional, identifies five main areas of expertise for an e-moderator:

- Understand the online process. Awareness of the fact that learning on the Internet requires a slightly different

approach than that used in traditional classes. Ability to adapt the traditional educational form to another context. To be able to exploit the specific advantages of an online environment and face its limits.

- Technical skills, i.e. familiarity with the tools and, in particular, the ability to identify functions that can be useful in e-learning. In e-learning you can use many applications and activities that have not been created for pedagogical purposes. But you need to discover their potential.
- Online communication. Awareness of non-simultaneous communication and its differences from face-to-face communication. The ability to communicate naturally and effectively.
- Sector-specific skills. Know where to find the best materials for the learning objective defined by the course and activities.
- Personal skills. Positive attitude and motivation to work and develop as online moderators. It makes no sense to get involved in an activity for which we are not motivated.

The main roles of a facilitator are:

- The pedagogical role: to support the learning process and not to focus on the "transfer" of knowledge in the

participants' heads. Some specific activities are:

- Provide guidelines
 - Give feedback
 - Giving advice
 - Evaluate
 - Motivate
 - Facilitate interactions between students and course materials
 - Monitor, initiate or moderate discussions
- The technical role: in order to be able to participate effectively in e-learning courses, the facilitator must have fundamental skills in using the computer, the internet and working in a virtual learning environment. Especially in the early stages of a course, the facilitator provides technical support, helps to access and guide students in the learning environment.
 - The organizational role. E-learning emphasizes the importance of independent work and student initiative, but this does not mean that they should be left alone. The facilitator should help the participants to develop the skills necessary to organize and conduct the work process independently, but also to support the development of a learning environment, i.e. group formation, mutual knowledge etc. The facilitator

should also help the participants to develop the skills needed to organize and conduct the work process independently, but also to support the development of a learning environment, i.e. group formation, mutual knowledge etc. The facilitator should also help the participants to develop the skills needed to organize and conduct the work process independently. The activities of the trainer are:

- Monitor participants' activities
 - Personal contact to participants who have been inactive for too long
 - Helping those who need to recover with the material
 - Define and enforce deadlines
 - Organising the work on the platform (reorganising discussion forums, solving logistical problems, etc.)
- The social function. Learning is usually a social activity. It is based on communication. That's why one of the most important functions of the course instructor is socialization, making sure that perfect strangers can communicate effectively online and form a dynamic group of individuals who are learning companions. A safe and friendly learning environment will allow participants to share their reflections, experiences and knowledge with others.

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II.4. Teaching Linguistic Competence in a Foreign Language

“I’d love to speak another language, *but...*”. Learning a new language could seem an unfeasible, hard task, especially while being adults. We all may have heard a myriad of excuses *not* to learn a new language. This might be due to the fact that language learning will never be 100 percent easy – nothing really worthwhile is, I must add –; language acquisition challenges our mind (our brain will have to build new cognitive frameworks) and it demands time, not to speak of the sustained, consistent practice it requires if one really pursues something beyond barely muttering isolated, basic words or formulas.

Besides, we should note that, in the case of grown-ups, it takes longer and a more strenuous work is needed (Hong *et al*, 2017). In fact, research on the acquisition of language (Krashen, 1982; Johnson & Newport, 1989; Newport, 1990) has put forward that there are certain constraints on learning, particularly, maturational constraints: adults’ tendency to over-analyse too much information at once hinders their ability to pick up a foreign language’s subtle nuances. Because adults “have a much more highly developed prefrontal cortex than children, [...] they tend to throw all of that brainpower at learning a second language. This high-powered processing may actually interfere with certain elements of learning language” (Trafton, 2014).

Additionally, a major mistake that may also hamper this procedure lies in the idea of “language as an object”, i.e., treating language like other scholastic subjects. If we just memorize a bunch of words and rules, we should never expect to speak the language as communication goes beyond that; all we have is “knowledge of language as an object”, which will allow us to talk about the language, not to use it. Rather, we should consider a more performance-oriented approach (Ellis, 2003) focusing on skill-learning and also accept getting messy as a part of our learning, getting rid of our sense of perfection, accepting making mistakes at times and learning from them. As a skill to develop, practice is crucial so do not dread failure or feel embarrassment if you sound a bit awkward at first. Assume that your accent is not native-like, that you will not understand everything initially and that none of this will matter in the long run. Commitment is what certainly matters!

Because language learning often brings about a seriously steep learning curve and many people burn out, one way to prevent this is by examining in advance how the new language may plug into your life, and then do whatever you can to make that integration happen.

All in all, despite its complexity, learning a new language can definitely be enjoyable and there are more than enough motives to get down to achieving it. Students join the classes for a variety of reasons; every language learner may find their own reasons to want to acquire it. So

first of all it is important to know why, explore the causes that push you towards the new language and unpack your true motivation.

II.4.1. What good reasons may push people towards *starting* learning a new language?

- Speaking a second language opens up a load of career opportunities and improves your employment prospects.
- Research has also proved “the cognitive benefits of learning another language, no matter how old you are. Memory improvement, longer attention span, and a reduced risk of age-related cognitive decline”, are some “of the known positive effects of speaking two or more languages” (Lewis, n.d.).
- Deep connections and lovely cross-cultural friendships can be established. You may enrich yourself and become a more interesting person whereas meeting more interesting people as well, and enjoy many more lively and “engaging conversations about a variety of topics than you ever would have had otherwise” (Lewis, n.d.).
- You may enjoy more as a tourist if you are able speak first person with the local people.
- For the sake of proving you can do it.

Everyone has their own unique reasons to learn another language. Reasons may be all

different however they all can be put into action similarly: by wanting and committing to do it.

II.4.2. Are there special requisites?

Motivation has been consistently tied to language learning success (Dörnyei, 2001); in fact, it is the single most influential factor in learning a new language (Gardner, 1985) so with self-encouragement and a positive attitude one may achieve more successful results. Motivation is a key factor to repeatedly seek out new language learning experiences and thus extend one's learning beyond the classroom. Research has proved that motivation openly impacts on: (i) the frequency with which students resort to learning strategies, (ii) how much they interact with native speakers, (iii) how much input they receive in the target language, (iv) how well they do on assignments and tests, and (v) how long they persist and retain their FL skills after language study is over (Oxford & Shearin, 1994; Ushioda, 2012; Li, 2017; among others). Hence, coming face to face with new input as much as possible, changing the language on one's social media accounts, computer and phone, downloading movies, listening to music, reading novels, watching documentaries or cooking from foreign recipes are but just a few of the wide range of ideas to implement in order to make the new language as present in one's life as possible.

II.4.3. Age and Foreign Language Learning

Not only factors such as motivation or attitude will play a role when learning a new language; in order to best enable learners pursuing foreign language acquisition, classes should be adapted to the age of the students. This can be seen in the different methodologies that teachers use depending on their target group age when in-site teaching and in the different proposals that on-line sites offer for different age groups. This, The British Council, for instance, has created *Learn English* <https://learnenglish.britishcouncil.org/> for adult learners of English.

Whereas 'elder' has been defined as being 50 years of age and above and 50 years old is regarded as the starting point of anybody's *second adulthood* (Sheehy, 1995), the thing is that those between 50 and 74 years old are often referred to as third agers. Demographics has pointed out that ours is an ageing society insofar as this group constitutes a significant proportion of the population. This is a new phenomenon for our societies.

Learning in later life has become something of a motto in recent years and there is an assumption that it relates in some way to third age education; in fact, we do not want to deny here that third age education is a part of learning in later life and thus including it is common among the plans and projects of any government pursuing a learning society nowadays.

The demand of people who want to gain more knowledge and/or further qualifications is progressively greater. In this light, pre-retirement education courses have become growingly popular, giving assistance to people in order to get properly prepared for their leisure time and also helping them to consider the weightiness of life beyond work. Naturally, learning in later life fits satisfactorily into the idea of lifelong learning and so it has been accepted without difficulty.

All in all, we have witnessed a tremendous growth in third age education, most of which is for leisure time since not all older adults want to go after education for qualifications. Indeed, there is an expanding advocacy for third age education (Elmore, 1999).

Learning may occur in formal, non-formal and informal situations

II.4.4. Learning nowadays: developing competences

In the late XXth century, as a result of intense research in fields such as Psycholinguistics, Sociolinguistics, Speech Act Theory or Second Language Acquisition, there emerged an interest and further development in the communicative properties of language use. Scholars realized that the way in which languages had traditionally been regarded and taught was fruitless because of the reduced scope attributed to the concept language in itself, as learners would by no means acquire the necessary resources to take part, in terms of

linguistic ability, in the different spheres of the social life.

Actually, it was Chomsky (1965) who first drew a relevant distinction between competence (the speaker-hearer's knowledge of his language) and performance (the actual use of language in real-life situations). The ability to make use of an internalized grammar, which enables one to both speak and understand an infinite number of potential utterances, is known as a speaker's **competence**. It is an abstract, internalized ability, as we can notice. However, it is the competence in the use of language that makes possible a speaker's **performance**, i.e. the behaviour of producing actual, authentic utterances. There is, in short, a distinction between what is potential and what is for real, what is actual.

Then, with accumulated evidence from research, it became more and more recognized that knowledge about the language in itself would not make learners straightaway into users of the target language. Knowledge without great doses of practice in interaction does not bring about the ability to communicate effectively with others, interaction and comprehensible input, do. These, together with the combination of language aptitudes that any individual has for learning a foreign language contribute significantly to their attainment of high levels of performance.

Knowledge, skill and attitude are part of a competence, however competence will not develop unless we related all their variables with

action. In fact, competence includes several processes such as metacognition and strategic thought, and it also "presupposes an intention and conscious use of both" (Cantón & Pérez, 2017). The OCDE Program Definition and Selection of Competencies (DeSeCo) points "to the achievement of a high degree of integration between the capacities and the extent of social aims that an individual" has when indicating that a competence is far more than knowledge and skills (Cantón & Pérez, 2017). It also includes "the skill of facing complex demands, relying on and mobilizing psychosocial resources (including skills and attitudes) in a particular context (OECD, 2003)" (Cantón & Pérez, 2017).

Fernandez-Salineró (2006, p. 141) offers definitions of competence in linguistic terms, specifying "the combination of attributes that concerns diverse orders of the person related with: "a) the knowledge, aptitudes and technical skills (to know); b) the methodological ways of proceeding in an activity (to be able to do); c) the guidelines and individual and collective forms of behaviour (to be able to be); d) the forms of organization and interaction (to be able to be)"

"The basic competence in linguistic communication involves a set of knowledge, skills and attitudes that are interrelated and rely on the communicative act. The knowledge is absolutely necessary for the reflection on the functioning of the language and its procedure of use" (Cantón & Pérez, 2017), but it is not enough. The knowledge is classified into: "linguistic, sociolinguistic and

pragmatic knowledge of the language". The skills, on the other hand, "are the necessary abilities to listen and to understand" any speech, together with those to encode the ideas in the oral mode of the language (Cantón & Pérez, 2017). "The necessary strategies to regulate the communicative exchange, the skills to read and to understand texts, as well as to write diverse types of texts with varied intentions" are also encompassed (Cantón & Pérez, 2017). The attitudes favour "the listening, the contrast of different opinions and the respect towards the opinions of others" (Cantón & Pérez, 2017). In turn, they also favour the interest for the intercultural communication.

The Council of Europe, by creating of *the Common European Framework of Reference for Languages: learning, teaching, assessment* (2001) "for the unification of directives in the learning and education of the languages", recommends "orientations by means of linguistic guidelines to achieve the communication in the teaching-learning process of a language" (Cantón & Pérez, 2017). The document specifies, in a general way, the main abilities "of the communication in the mother tongue. It is based on the skill to understand, to express and to interpret thoughts, feelings and facts of oral and written forms (listening, speaking, reading and writing) in a wide range of social contexts (personal and professional life, leisure and education)", according to anyone's desires and/or needs. It is a descriptive document which "has

turned into an international reference for all the professionals related to the education of foreign languages providing «a common basis for the elaboration of language syllabuses, curriculum guidelines, examinations, textbooks, etc. across Europe»" (Council of Europe, 2001, p.1, Cantón & Pérez, 2017). The Document defines in an integrated way what the students of languages must learn to do in order to become able "to use a language to communicate, as well as the knowledge and skills that they have to develop to be able to act in an effective way" (Council of Europe, 2001; Cantón & Pérez, 2017). The approach of the Common European Framework of Reference for Languages is action-oriented, given that it views learners of a language as potential users of such a language.

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II.5. Game based Learning

This text is an adaptation-reproduction of the following research article of the author: Baalsrud, J.; Bellotti, F.; Nadolski, R.; Berta, R. & Carvalho, M.B. (2014): "Deploying Serious Games for Management in Higher Education: lessons learned and good practices". *EAI Endorsed Transactions of Serious Games*, Vol. 1 (3), pp. 1-12 (License: Attribution 3.0 Unported (CC BY 3.0)).

In the last decades European economies tend towards being knowledge-driven as well as being digitized. This process leads to the need for changes in educational requirements and the competence of using information and communication technologies in daily life. A way of achieving this competence is to introduce more ICT based teaching within the formal educational system, also in order to overcome identified challenges in normal class room settings (Kerns, Miller, & Kerns, 2005; Cheville & Bunting, 2011; Davis, Beyerlein, Thompson, Gentili & McKenzie, 2003). Different concepts and tools have been explored and many of these allow more active participation (O'Sullivan, Rolstadås & Filos, 2011; Chrysosouris & Mavrikios, 2007; Baalsrud Hauge, Hoeborn & Bredtmann, 2012). Game-based learning (GBL) (Prensky, 2003; Gee, 2003; Ebner & Holzinger, 2007) - in particular through Serious Games (SGs), games ad-hoc designed for joining fun and instruction (De Gloria, Bellotti & Berta, 2012; Bellotti, Berta & De Gloria, 2010; Greitzer, Kuchar & Huston, 2007) has been used

in educational context for decades and has been established as a significant tool in this regard, in particular for primary and secondary education. Teachers can exploit well designed games to motivate children, contextualize teaching and/or offer opportunities to exercise and verify knowledge and skills. Educational simulations that can be enhanced with gaming features, in particular do enable the learners to cope with real problems and authentic situations that are close to reality (De Gloria, Bellotti & Berta, 2012; Narayanasamy, Wong, Fung & Rai, 2006; Kriz, 2001), however, there are several pit-falls in the implementations that leads to low deployment rate. This is partly caused by a lack of papers in the literature describing deployment of SGs, showing their educational benefits and providing guidelines and practices on their use, in comparison with other educational tools/techniques.

II.5.1. Pedagogical models for characterizing learning with SGs

Several pedagogical theories and learning models have been employed to inspire SG design and to assess validity of SGs. Among the knowledge models, we highlight the Nonaka SECI model (Nonaka, Toyama & Konno, 2000; Nonaka, 1994) which is mentioned as a theoretical basis for the use of SG-based workshops, at least in the fields of business, management and manufacturing (Angehm & Maxwell, 2009), and Kirkpatrick's "The Four

Levels of Learning Evaluation” that is a popular learning impact assessment model, involving the following levels: reaction, learning, behaviour, results (Kirkpatrick, 1998). A fifth level of evaluation has been added in new versions of the model by (Phillips, 2007) and by (Watkins, Leigh, Foshay, & Kaufman, 1998), considering also return on investment and impact on clients and society, respectively.

Commonly used models in describing SG are: the Revised Bloom Taxonomy, which is the most popular cognitive approach to SG evaluation (Luccini, Luccini, Mortara, Catalano & Romero, 2012); and the Kolb’s Experiential Learning model, which systemizes the work rooted on Piaget’s cognitive developmental genetic epistemology (Piaget, 1929), on Dewey’s philosophical pragmatism (Dewey, 1933), and on Lewin’s social psychology, putting the experience at the centre of the learning process. These two helps in analysing at which level the learning takes place as well as how the SG contributes to the learning process.

II.5.2. Bloom taxonomy

Bloom created a taxonomy for categorizing levels of abstraction that commonly occur in educational settings, so that learning outcomes can be easier compared and assessed (Bloom, Engelhart, Furst, Hill & Krathwohl, 1956). He defined three domains in which educational objectives are divided:

- Affective and
- Psychomotor

Cognitive learning refers to the intellectual capabilities that are most relevant for educational applications, as well as the affective capabilities that refer to the players’ feelings, motivation and behaviour relevant in serious games applications. For each of the above-mentioned domains, the model defines a set of competence categories. Schulman (2002) and others have criticized the lack of theoretical foundations. Based on this criticism, Anderson and Krathwhol (Pohl, 2000; Anderson & Krathwhol, 2001) created a new model by reinterpreting the set of verbs, replacing the nouns related to the learning categories in the cognitive domain with verbs, and by inverting the two highest order levels, Creating and Evaluating, on the assumption that evaluation is less challenging than Synthesis/Creating, thus reflecting the process of solving problems better” (Luccini, Luccini, Mortara, Catalano & Romero, 2012, p.19).

Table 1. Original and revised Bloom taxonomies

Cognitive competences in the Bloom taxonomy (Bloom, Engelhart, Furst, Hill & Krathwohl, 1956)	Learning goals in the Revised Bloom taxonomy (Anderson & Krathwohl, 2001)
Knowledge	Remembering
Comprehension	Understanding
Application	Applying
Analysis	Analysing
Synthesis	Evaluating
Evaluation	Creating

II.5.3. Kolb experiential learning

circle

SG foundations typically rely on an experiential learning model, in which active experience (action) plays a key role. This is in the tradition of Kolb (1984) and Revans (1980). By thinking and reflecting on his experience and by relating it to former experiences, the learner makes generalizations and fits the results into his personal view of reality. Based on this, he is then able to modify his approach for future experiences. This approach is often associated with constructivist approaches that mostly consider learning as a construction of knowledge (Windhoff, 2001, p. 53]. Even when the learning task is simple, constructive processes operate, so that mental structures are formed, elaborated on, and tested, until a satisfactory structure emerges (Perkins, 1993 p. 20). This learning process

requires the building up of conceptual structures through reflection and abstraction (Von Glaserfeld, 1995), which is reflected within Kolb's learning cycle.

Kolb's (1984) four-stage learning cycle suggests how experience is translated through reflection into concepts, which in turn are used as guides for active experimentation and the choosing of new experiences (Figure 1). Within the first stage, concrete experience, the learner actively experiences an activity. In the second stage, reflective observation, the learner consciously reflects back on that experience. In the third stage, abstract conceptualization, the learner attempts to conceptualize a theory or model of what was observed. In the fourth stage, active experimentation, the learner attempts to create a plan on how to test a model or theory or plan for a forthcoming experience.

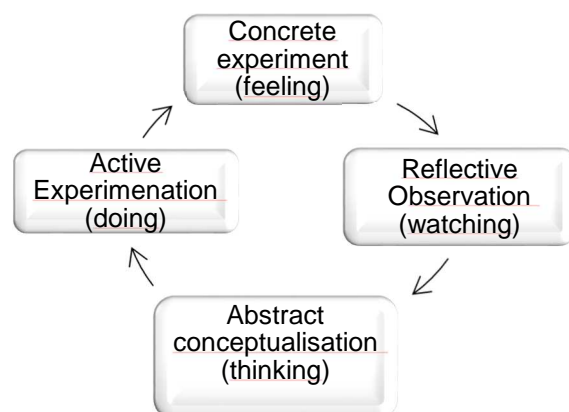


Figure 1. Kolb's learning cycle

As written in the introduction, the deployment of SG is often low. This is partly based on the difficulty in adapting games to different user groups, to use one and the same

game in different contexts and to address the need of learners having different previous experience and knowledge. The question which is of main interest is therefore how the e-Civeles game can be used in different context. This will be addressed after some general consideration on how SG can be embedded in formal education. However, the experience gained from the field allow us to make some considerations that we believe could be useful for educators in order to better understand the serious game deployment process and for researchers to better identify points where more research should be done, in order to improve the state of the art educational tools and practices. In the case of e-Civeles, not all cities had an existing curriculum for which the game scenario could be design, and thus, the requirement of the teacher who intends to use the game is high, since the teacher first need to gain sufficient understanding of the game play, and then the teacher needs to be able to assess different ways on how to integrate the existing scenario into a curriculum in a purposeful way.

Our experience shows that there is a difference between customised games designed for meeting specific “technical skills” and commercial off-the-shelf games mostly designed for more generic use. E-Civeles is designed for the project, but the needs of the four different cities varies, so it can to some extent be considered as a hybrid type. For the first type, fulfilment of learning objectives of the course is given the highest priority, while the second ones

are usually more attractive, as they feature high level graphics and multimedia look. However, the development of first type of games mostly ensures a co-creative development process between teachers, designers and software developers, whereas for the latter, the game designer is paying less attention to the learning objective and more to the game-related considerations. Consequently, the game may attract a broader audience, improving the embedment and deployment in formal education. Assessing existing games from a curriculum point of view might sometimes lead to adjusting the curriculum towards embedding the game for the purpose of transfer of learning, supplemented with other blended learning possibilities or offer functional requirements for modding such a game towards evidence-based transfer of learning within the game. In the latter case, sustainable game development is favourable, since modding is easier and less time-consuming if the game-structure can be easily changed and is separated from the content resources. Some COTS games allow customization by the teacher in terms of several in-game parameter values (e.g., target products, markets, etc.) and module availability (e.g., marketing, human resource management, etc.).

In both cases, to guarantee successful development and deployment it is important to carefully align gaming goals with course goals and course assessment (i.e., constructive alignment). Deploying a new game is a complex and time-consuming activity that ideally requires

the development of an ad-hoc deployment plan, specifying goals (educational and in-game) and context of use.

Fine-tuning the parameters for the games and deciding how much playing will be employed in a course can be a challenge. It is difficult to organize a sequence of game matches/sessions that continuously engage the students, while representing a proper educational path usable during a whole course, or part of it. Also considerations on aspects of a match/session, regarding its length (number of stages, i.e., virtual months), addressable modules (e.g., finance, human resources, production, etc.) and environmental settings to be fixed represent a challenge. For example, pursuing this target required the authors to closely work with the game developer team, also carefully considering the continuous feedback from the students.

The quality level of a game match largely depends on the quality of the player/teams that should thus feature similar levels, in order to create compelling situations (where the students are challenged to perform even better) and didactically useful market conditions. For competitive games, the teacher should thus more support the weaker teams, in order to enhance the overall competitiveness, whereas for a collaborative game setting, it is more important that the game environment is able to support different competence levels within the same gaming scenario. In facilitated games, the facilitator's role is usually essential and often the

facilitator's skills are very important for achieving good learning outcomes.

Documentation should be very easily accessible online, in particular during the game and also the game developer support should be available, at least in the phases of course design and early deployment. Therefore, we have developed a guideline for e-Civeles.

Our experience with both facilitated and un-facilitated games shows that in addition to using Kolb's experiential learning cycle in a blended learning concept including debriefing sessions, it is important to collect precise feedback from each game session, either through questionnaire or through data collected during game play and discussed in the debriefing. This supports the construction of new knowledge among all participants and leads to a deeper understanding of systems' dynamics. Secondly, also rewarding mechanisms and consideration of the game score as an important element for the overall students' assessment ensures a higher motivation among the players. However, depending on how e-Civeles game will be implemented in a course, this might be difficult. If it is intended to be played in a single mode (as it is designed), it is necessary that each step is sufficiently documented in the course manual and it is automatically connected.

A main lesson learned from our experience, is that it is very important to not overload the games, making the simulations too precise, thus giving the students too many

variable and too high complexity to handle at once.

Moving from theory to practice signifies an important step in one's mind-set, and this was indicated in our results.

SGs should typically be used in blended learning settings, with briefing and debriefing sessions in order to complement and reflect on the experience, possibly with questionnaires. Facilitated games like Seconds should not be played in single mode or without facilitator, since intra-team relationships are very useful and the overview of an expert is very important both for the contents and for the game procedures themselves.

The duration of the session is critical, as it should not be too short, since the students have more time to observe, reflect and construct before taking actions. This helps for the strategic thinking process. Playing only one session is not enough for knowledge/skill acquisition, which in case of e-Civeles requires that the course participants get a stimulus to re-visit the game play or to read more about the different point of Interests.

A critical factor concerns the instructions given to the students before and during the game (both concerning the contents and the game itself). Moreover, in-game knowledge (typically procedural and intuitive) should be complemented with other type of information, typically verbal and objective.

The facilitator or the teacher should pay attention at the students' learning outcomes after

(and possibly also during) the game, in order to detect misconceptions, that are likely to appear, according to our experience, given the students' procedural and empirical approach.

The introduction part has to be carefully adapted to the level of knowledge of the users and decision-making management strategies (we use pre-questionnaires for defining the level of the course). A hands-on session before the start of the actual game competition is strongly suggested, as it helps the students to concentrate on the game play, and reduces the stress level.

A crucial step when preparing a course exploiting SGs is the actual choice of the games. The first step involves the collection of requirements related to the course and the curriculum. Addressed items include: target group, credits, learning objectives, which skills and competences should be trained, connection to the overall curriculum, underlying technical infrastructure, course setting, embedding with other learning material, use of blended learning concepts or not, number and length of units, feedback and assessment needs, pre-requisites (compare Nadolski, Hummel, Van Den Brink, Hoefakker, Sloomaker, Kurvers & Storm, 2008).

The candidate games' features will need to be analysed in the light of the above-mentioned requirements. Typical criteria for selection include various factors, such as: coverage of the needed educational topics; matching between the course's learning objectives and the game's features; costs (both in terms of software and of deployment and of maintenance); usability;

quality of user assessment and provision of feedback; game adaptability; knowledge transferability; in house competencies and time availability in case development of a new serious game was considered; degree of freedom for players and teachers; support to collaboration; SG's learning curve, difficulty level and long-term playability; competences and effort needed on the teacher's side; availability of additional educational material related to the game. A main challenge in the selection process is the difficulty in having a critical and complete overview of existing games.

Depending on the weight of each one of the above criteria, existing games can be matched, and a make or buy decision may also be done. In the second case some of the collected requirements may need to be adapted. In the case studies presented in this paper, different needs led to different choices.

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Part III

Practical Approach

III.1. Teaching geospatial and digital cultural competences offline

The purpose of this chapter is to provide a series of practical exercises in the scope of the educational objectives of e-Civeles project and that they can be used as complement to the resources resultant from it, which we explain in the introduction of this publication. These are activities that can be carried out both within as well as outside the classroom. The teacher has to decide which activities are best adjust to the content of their course, to the teaching methodology that creates more convenient and the special nature of their students.



Figure 1. Plaza del Cabildo, Évora (Portugal).
Source: Paolo Querci. Licencia: (CC BY 3.0).

III.1.1. E-civeles Indoors: exercises

III. 1.1.1. Fragments of History - Picture puzzle

Group size: 1-8 participants

Time: 10m

Required tools:

- 5x2 A4 sized cut up pictures of famous sights from Antequera, Évora, Nagykovácsi, Udine, and Velenje Envelopes

Aim: To improve motor skills, problem solving, enhance group work and socialisation, and educate.

Procedure: Learners receive an envelope which contains 2 set of puzzles. The group members must work together to complete the pictures, and identify their location. Completing both pictures and successfully identifying the location of the sights earn the learners 2 points.

III.1.1.2. Wandering Wisdom - Matching game

Group size: 1-8 participants

Time: 10m

Required tools:

- A set of pictures showing Antequera, Évora, Nagykovácsi, Udine and Velenje

- Logo design sheet
- Text sheet
- Assembly template
- Envelopes
 - ➔ Pictures, texts, and logo designs should be cut from their sheets and placed into the envelope beforehand.

Aim: To improve problem solving, enhance group work and socialisation, train cognitive abilities and educate.

Procedure: Each group receives an envelope, and 3 blank assembly templates. The envelope contains 3 different set of texts, logo designs, and pictures. The learners are tasked to categorise the wandering wisdom pieces, and build up the information sheet of the cities on their blank assembly templates. After completing the tasks, the groups may share the information with the rest of the learners

III.1.1.3. Timeline of Historical Sights

Group size: 1-8 participants

Time: 15m

Required tools:

- Description of cultural sights
- Photos of the respective sights with typical features of the era they were created in (eg. Gothic style etc)
- 2 Envelopes

Aim: To improve, problem solving, enhance group work and socialisation, knowledge about cultural sights and eras.

Procedure:

Step1. Learners receive an envelope which contains a set of pictures of sights- especially of typical buildings of the given city. The number of pictures can range between 4 and 8 depending the background cultural knowledge of the group. The group members have to guess the age when those building might have been constructed and then put the pictures in order according to the year they were constructed, thus creating a timeline of the works

Step2. Learners receive the descriptions of the sights above. Based on the descriptions they put up the timeline of the sights.

Step3. The teacher/facilitator gives the correct time order.

Step 4. With the facilitator's lead, there might be an introduction where typical features of art styles and cultural eras (like Baroque, Romanticism, Art Nuovo, etc) are presented. Alternatively, at the end of the sessions, participants can discuss what typical features they discovered.

III. 1.1.4. Lineart - Guessing game

Group size: 1-8 participants

Time: 10m

Required tools:

- A4 sized lineart pictures of famous sights from Antequera, Évora, Nagykovácsi, Udine, Brema and Velenje

Aim: To improve motor skills, problem solving, enhance group work and socialisation, and educate.

Procedure: Learners receive a sheet with the emblems of 6 participating countries created with lineart technique. Based on information gained in previous exercises they have to identify the given sights. Succesfully identifying the location of the sights earn the learners 1 point/sight.

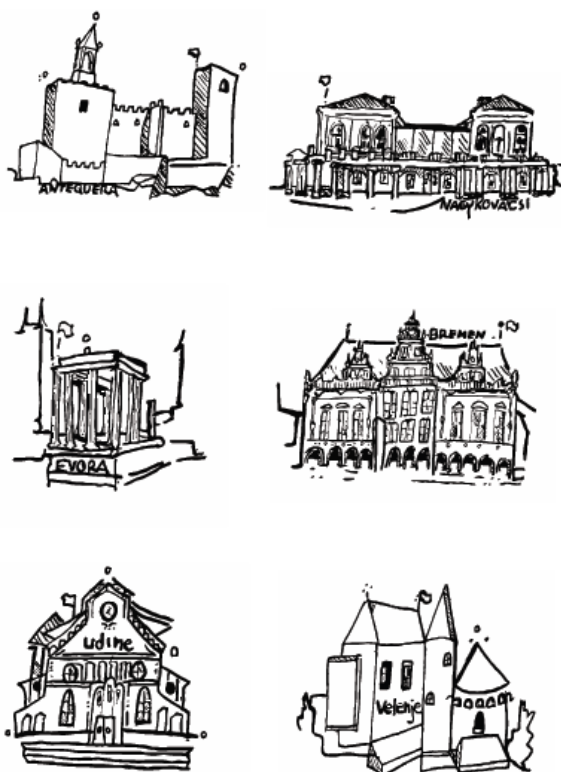


Figure 2. Lineart of the different cities. Source: TREBAG

III.1.2. E-Civeles Outdoors: exercises – treasure hunt

III.1.2.1. Treasure Hunt

Treasure Hunt is a playful and educative way to discover a settlement and gain information about its sights. In the making of a treasure hunt exercise the best way is to first look for information about the city, its sights and cultural heritage. We can get a lot of information online, can search in local books on the history of the city or can count on oral information from scholars or locals. If we have the basic info it is advisory to discover the city ourselves. This way, we can see the sights on their location and can decide about how to design the exercise for the given sight. Also, by walking along the planned stations, we can see timing and also we can highlight possible obstacles which older people might encounter.

Once we collected the information and we decided about the sights to visit, we prepare a map for better orientation. On the map we indicate the sights by the e-Civeles indicator. We do not indicate the order of the stations and if we have more groups, we might want each group to start from different start point not to interfere with each other.

In the meantime, we prepare the worksheets for the groups.

It is nice if there is a small competition and a time limit and at the end of the game the winning team gets a prize.



Figure 3. Treasure hunt in Nagykovácsi (Hungary). Source: TREBAG

Getting to know your city - Treasure hunt

Group size: 4-8 participants

Time: 20m-60m

Required tools:

- A Map and a set of treasure hunt questions.

Aim: To improve motor skills, problem solving, enhance group work and socialisation, and get to know the city, orientation

Procedure: Learners are divided into groups of the same size (preferably members 4-8) They receive a map where main sights to find are indicated by an e-Civiles logo. They start from the

first indicated sight (1st station) and complete the riddle created for the given sight. If they are ready, they go on for the next sight (2nd station) and also complete the given exercise.

By going to each station learners discover the city, they learn how to orientate and know new information on the sights. The winner is the group who reaches the final station within the given time framework and has the most correct answers to the questions.

III.2. Teaching heritage through ICT. Using Kahoot.

III.2.1. Pedagogical tools for the classroom: Kahoot

Kahoot is a free interactive platform which, in an easy and intuitive way, allows the simultaneous interaction between teachers and the student body by way of on-line quizzes. Male and female students compete among themselves, and they may even create teams in order to get as many answers as possible right. Before that, the teacher should have adjusted the thematic focus of the questionnaire, and will keep adding more and more questions and right answers.

Once the quiz has been designed by the teaching team, the platform makes a link available and once clicked, a pin is provided so that students may log in with their mobile devices (smartphones, tablets, etc.) simultaneously and the teacher then makes session begin. Questions will turn up gradually, with the additional advantage that once each of them is finished, the teacher enters manually the next one, something which allows a certain timespan to debate in class or to answers questions raised by the students, among other things.

This way, a kind of competition is generated among students, motivating them to make an effort to acquire all the concepts dealt with in a given course. It is a kind of teaching experience which may thoroughly fit in virtually any science and knowledge that may take place in any educational activity.

In the particular case of the e-Civeles project, and on the Night of the Researchers which took place in Málaga (Spain) in 2019 we had the opportunity to carry out this educational

experience successfully with questions on two of the towns that are part of the videogame of the aforementioned project, namely: Velenje and Antequera.

By way of summary, quizzes covered History, Archaeology, Culture, Geography, Demography, among others, of both towns, with true/false or multiple-choice questions, in the latter case with three distractors and just one correct answer, etc.

The links for Kahoot are <https://create.kahoot.it/share/e08884e0-c7ef-4f06-8851-b7ed2d9429b2> for Antequera and <https://play.kahoot.it/v2/?quizId=6a142453-3ad6-4b7b-b807-d8259b9f9db8> for Velenje.

As example, you can see the questions for Antequera (the one in bold is the right answer) in the Annex.

Part IV

E-Civeles Project Curriculum

IV.1. Introduction

Six countries make up the international consortium of the international E-Civeles project on Digital Competencies and Intercultural Values in e-Learning Environments: Spain (University of Malaga), Germany (BIBA), Italy (ULE), Portugal (USE), Slovenia (INTEGRA) and Hungary (Trebag).

The E-Civeles project is funded within the Erasmus + program to create a series of innovative materials and resources and to use ICT from a playful perspective. The core of the video games is the implementation of four historical city centers, where the players have to orientate themselves through the streets and squares in downtown in order to find the main monuments. The cities to visit through these video games are: Evora (Portugal), Antequera (Málaga), Udine (Italia) and Velenje (Slovenia).

Objectives

The e-Civeles project is based on two aspects:

c) inclusion, favouring opportunities equivalent to two social groups especially vulnerable at this time in Europe: immigrants and the population over 55 years.

d) social equity, contemplating the peculiarity and human diversity/ in space, among citizens from different geographical areas/; and in time, intergenerationally.

Therefore, the specific purposes of this project are:

- To promote the improvement of digital, linguistic and cognitive skills of the target groups.
- To foster social inclusion by raising awareness of the historical and cultural heritage in a European context
- To stimulate teacher updating in this field.

Methodology

The pedagogical methodology is in-class training with provision for project assignments and practical work. It is be tailored for 30 hours of education.

The training course addresses trainers, teachers, managers of those who deal with educating either people over 50 or people with migrant background both in the field of adult education irrespective of being formal, non-formal or informal education.

The project outcomes are:

- A Handbook that is used as a background material that contains theoretical and practical information in the course context.
- Practical exercises, which are included in the handbook but can be used as individual exercises implemented alone or together with the online games.
- Online platform with the database, which serves as a pool of resources for games in the context of the course
- Online games or videogames which are educational game-based learning tools

Results of the project

- Creation of a virtual platform containing a database on online games and e-learning materials dealing with spatial orientation, cognitive stimulation and linguistic training. It will also have associated materials like online games on cultural heritage, historical heritage and inclusion.
- Practical guide for trainers in groups on interculturality, social inclusion, etc. with practical

exercises and recommendations, including a curriculum (syllabus) useful to organize courses along the aims of e-Civeles project.

Training course description

Learning objective

The course objective is to improve the knowledge and skills of the adult educators, teachers and trainer managers for the improvement of their teaching work through the use of digital tools and resources from an intercultural learning perspective (promotion of cultural integration and appreciation of European cultural-historical heritage) and a multicompetential approach (digital, geospatial, linguistic, cognitive stimulation)

Detailed objectives:

- learn to manage updated information and technology and communication tools that favour an intercultural perspective and the teaching of skills of different kinds (geospatial, digital, linguistic);
- accumulate practice in the use of the tools and apply it in daily work;
- be able to perform their work in a more effective and more creative way, increasing their motivation and that of their students through methodologies related to gamification;

- have the chance and the opportunity to expand their professional and personal perspectives with international aspects;

- contact other active professionals in the same field with those who share similar professional interests through the training and dissemination activities of the project;

- know suggestions and ideas to facilitate and promote additional knowledge and contacts;

- have free access to well-structured and easy-to-use teaching and study materials (virtual platform, database, video games, guide) in daily work;

- be enriched with socio-psychological aspects of the secondary target group (+55 students and immigrants);

Target groups

The target groups of the proposed training course are:

- teachers and trainers for adult education
- training managers in charge of the programmes of an adult learning centre
- facilitators in adult education

Recommended background

The course is appropriate both for those specialised on educating seniors as well as those dealing with adults with migrant background. Basic knowledge and some experience dealing with the respective groups is recommended before entering the course. The acquisition and use of the online platform and video games presumes some digital literacy for the start.

Learning methodology

The pedagogical methodology is in-class training with provision for project assignments and practical work. It is be tailored for 30 hours of education.

The training course addresses trainers, teachers, managers of those who deal with educating either people over 50 or people with migrant background both in the field of adult education irrespective of being formal, non-formal or informal education.

The training course has been designed as a tutored-based learning. Learning material includes a virtual platform with database, a guidebook with theoretical background and practical exercises, online games with a short guide and the present curricula with a syllabus.

The training consists of 5 learning units. Each learning unit comprehends a general description of its objectives, duration, and contents. It is divided into different sessions and includes a range of learning materials, with the objective to support trainees to acquire

theoretical knowledge and build up the skills and competences required for cultural and digital education in an intercultural environment. The learning materials that are used in the course consist of:

- Online platform with database
- Handbook
- Curriculum (present material)

- Online games

The training course will be managed by a trainer or a team of trainers or facilitators. The educators will have the main responsibility to manage the course, guide and support the trainees.

The training course will have duration of 5 days. Each day, the trainers will make an overview of the last day and a presentation of the learning units of the day.

IV.2. Syllabus of the training course

The training course is structured in 5 parts: one introductory unit, four units corresponding to the competences and knowledge development in the field and a closing unit for practical exercises, feedback and assessment.

Unit 1

Title:	Introduction
Objectives/ expected outcomes	<p>By the end of this unit, the trainee will</p> <ul style="list-style-type: none"> • become familiar with the project, its objectives and results • become familiar with the course through reading the syllabus • understand main objectives of the project and the course • reveal own motivation and interest as well as input competences in the field • able to look for information and example games in the database
Estimated duration:	5 hours
Contents	<p>Introduction to the course</p> <p>Project objectives and results</p> <p>Course process and competences to be achieved</p> <p>Games in related topics and using the database</p>
Learning material	<p>Handbook: Part I</p> <p>Handbook: Part III: Icebreakers</p> <p>Online platform: Database</p>
Activities	Presentation and discussion, online use of database

Unit 2

Title:	Intercultural and linguistic competences
Objectives/ expected outcomes	<p>By the end of this unit, the trainee will:</p> <ul style="list-style-type: none"> • understand the concept of intercultural dialogue and learn its main aspects • understand the importance of social inclusion and apply its theory in the field of migration questions • understand the importance of linguistic competences • be able to improve linguistic competences for older age group
Estimated duration:	8 hours
Contents	<p>Intercultural competences</p> <p>Intercultural dialogue</p> <p>Social inclusion and its challenges</p> <p>Social inclusion and its aspects</p> <p>Social inclusion and immigrants</p> <p>Linguistic competences</p> <p>Motivation and requisites for language learning</p> <p>Languages and older age</p>
Learning material	<p>Handbook: Chapter II.1</p> <p>Handbook: Chapter II.4</p> <p>Handbook: Chapter III.1</p> <p>Database: games on immigration/inclusion</p>
Activities	<p>Presentation and discussion, Group work</p> <p>Games and exercises on intercultural dialogue</p>

Unit 3

Title:	Geospatial competences
Objectives/ expected outcomes	<p>By the end of this unit, the trainee will:</p> <p>understand the meaning of geospatial and geolocation competences</p> <p>be able to define location</p> <p>be able to use several tools for orientation exercises like geocaching</p> <p>know and be able to use educational tools for geolocation</p> <p>know about online games in the topic</p>
Estimated duration:	8 hours
Contents	<p>Teaching geospatial competences in adult education contexts</p> <p>Definitions, concepts and relevance of geospatial location</p> <p>Education tools for teaching geospatial competences</p> <p>Education resources to develop geospatial competences</p> <p>Final recommendations for adult education teachers and professionals</p> <p>Kahoot</p>
Learning material	<p>Handbook: Chapter II.2</p> <p>Handbook: Chapter III exercises</p> <p>Appendix I-II</p>
Activities	Presentation, discussion, pair work, group work

Unit 4

Title:	Digital competences and Game-based learning
Objectives/ expected outcomes	<p>By the end of this unit, the trainee will:</p> <ul style="list-style-type: none"> acquire knowledge on how to teach ICT on adults be able to identify and handle challenges in teaching ICT-based context for older adults be able to understand the basic concept of game-based learning be able to plan and manage course content with game orientation know how e-learning can be applied in adult education
Estimated duration:	8 hours
Contents	<p>How to teach ICT to adults</p> <p>E-learning</p> <p>The role of the facilitator</p> <p>Game based learning</p>
Learning material	<p>Handbook – Chapter II.3</p> <p>Handbook – Chapter II.5</p> <p>Online platform and database</p> <p>Online games – and introduction</p>
Activities	Presentation, discussion, pair work, group work

Unit 5

Title:	Practical and Closing Unit
Objectives/ expected outcomes	<p>The last unit of the training course is a compilation of what has been learned so far put in a practical way. Moreover, it aims to give to the participants enough time to conclude their activities, to reflect on the newly acquired learning outcomes, to provide feedback to course organisers and to interact with other course participants. By the end of this unit, the trainee will:</p> <ul style="list-style-type: none"> • understand and be able to use the online games of e-Civeles • develop their knowledge on culture in various locations and know tools and methods how to transfer this knowledge to the target group • be able to use and create treasure hunt exercises for transferring cultural and geospatial competences
Estimated duration:	5 hours
Contents	<p>Videogames</p> <p>Cultural descriptions</p> <p>Online and offline exercises</p> <p>Treasure hunt</p> <p>Debriefing and closing by the trainer</p> <p>Evaluation questionnaire</p>
Activities	<p>Learning about the games and the online platform</p> <p>Using the online games</p> <p>Using the offline games on culture</p> <p>Applying offline games on orientation and treasure hunt</p> <p>Assessment</p> <p>Fill-in the evaluation questionnaire</p>

IV.III. Course timetable

The materials and resources of the project can serve a flexible topic and time system within the scope of the given field of digital education in an intercultural context for adult learners. The teacher/facilitator can select and arrange pieces of resources to match the target group present and also to match verified training objectives as well as being watchful for possible time and resource restrictions. The training course described below is only one of the examples on how a 5- day- course can be built up. It has a total duration of 30 hours and it lasts for 5 days.

1st day

10:00 – 10:30	Welcome Introduction of participants	
10:30 – 12:00	Overview of the programme Presentation of the course: syllabus, methodology, learning outcomes, organisational issues Establishing rules for working together Introduction to e-Civeles project	Presentation
12:00 – 13:00	Lunch break	
13:00 – 13:30	Icebreakers and networking	Group activity
13:30 – 14:00	Coffee break	
14:00 – 15:00	Introduction to the database and its use	Presentation

2nd day

9:00 – 9:10	Warm-up	Warm-up exercise
9:10 – 11:00	Intercultural Dialogue and Competences: Presentation and exercises	Presentation Group activity
11:00 – 11:15	Coffee break	
11:15 – 12:30	Social Inclusion and its aspects	Presentation Discussion
12:30 – 13:00	Linguistic competences <ul style="list-style-type: none"> • The importance of language learning • How to motivate people • Language learning in older age • Theory, tools, and techniques 	Presentation Group activity Discussion
13:00 – 14:00	Lunch break	
14:00 – 14:45	Practical aspects Using (offline) games for examples on language learning and intercultural dialogues Handbook: Part III – Practical exercises	Presentation Group activity Discussion
14:45 – 15:00	Coffee break	
15:00- 16:00	Using (online) games selected from the database in relation to intercultural dialogue, social inclusion and language use	Presentation Group activity Discussion

3rd day

9.00 – 9.15	Warm-up exercises	Group work
9.15 – 10.15	Importance of geospatial competences. Knowing about localization	Presentation
10.15 – 11:15	Educational tools for teaching geospatial competences	Presentation
11:15 – 12:45	Educational resources: online tools based on handbook links and using database.	Presentation , Discussion, Using computers in pairs
12:45 – 13:45	Lunch break	
14.00 – 14.40	Kahoot on geological and cultural aspects	Group work, pair work
14.40 – 16.00	Practical use of tools, trying geocaching	Group work

4th day

9.00 – 9.10	Warm-up	Warm-up exercise
9.10 – 10.00	The importance of digital competences (terms, concept, methods)	Presentation Group activity
10.00 – 10.45	Challenges of ICT for older adults	Presentation Group work
10.45 – 11.00	Coffee break	
11.00 – 12.30	E-learning and blended learning	Group activity
12.30 – 13.30	Lunch break	
13.30 – 14.30	Game-based learning theory	Presentation Discussion
14.30 – 14.45	Coffee break	
14.45 – 16.00	Game – based learning. Examples. Introducing the e-Civeles platform and games	Presentation Practice

5th day

9.00 – 9.10	Warm-up	Warm-up exercise
9.10 – 10.30	Introduction to the game, presenting user guide Challenges with playing the video games	Practical exercise/group work
10.30 – 10.45	Coffee break	
10.45 – 11.45	(Offline) games on culture and orientation - indoors	Practical exercise/group work
11.45 – 12.45	(Offline) games on culture and orientation: treasure hunt - outdoors	Practical exercise/group work
12.45 – 13.30	Summary Evaluation of the training course Certificates Farewell to participants	

ANNEXES

Kahoot example: historical sites in the city of Antequera (Spain)

In the the link for Kahoot for Antequera: <https://create.kahoot.it/share/e08884e0-c7ef-4f06-8851-b7ed2d9429b2>, you can find the following questions:

1. Prehistoric archaeological remains previous to the Antikaria settlement have been found, dating back to:
 - a. 1000 – 500 years BC
 - b. 2000 – 1000 years BC
 - c. **6000 – 2000 years BC**
 - d. 10000 – 6000 years BC
2. Menga dolmen presents an orientation based upon two natural monuments. Choose the right option.
 - a. Enamorados Rock and Romeral Hill
 - b. **Enamorados Rock and El Torcal Ridge**
 - c. Guadalhorce River and El Torcal Ridge
 - d. Romeral Hill and Enamorados Rock
3. Could you say what is represented in the central medallion of the polychrome mosaic of the Roman Therms in Antequera?
 - a. A fish
 - b. A sun
 - c. **A sea Divinity**
 - d. A human face
4. The Antequera Alcazaba (Citadel) was re-conquered by
 - a. **The Prince Don Fernando**
 - b. King Alfonso V
 - c. King Juan I
 - d. King Jaime I
5. Which aesthetic style does the Royal Collegiate Church de Santa María la Mayor fall under?
 - a. Romanesque style

- b. Baroque style
 - c. Rococo style
 - d. **Gothic style**
6. Both the Church of Our Lady of carmen in Antequera and its Carmelite convent were built:
- a. Between the 14th - 15th centuries
 - b. Between the 15th – 16th centuries
 - c. **Between the 16th – 17th centuries**
 - d. Between the 17th – 18th centuries
7. Which year exactly was the architectural complex Madre de Dios declared an Site of Cultural Interest?
- a. **2006**
 - b. 2004
 - c. 2016
 - d. 2010
8. With whose reign is the foundation of the collegiate church of San Sebastián associated?
- a. Alfonso X the Wise
 - b. Fernando I of Aragon
 - c. **Carlos I (the Emperor of Germany)**
 - d. Alfonso V
9. With which other name is the Arco de los Gigantes (Arch of the Giants) in Antequera also known?
- a. Arch of Honour
 - b. Gate of Glory
 - c. Gate of the Prince
 - d. **Gate of Hércules**
10. Which is the name with which the Chapel Tribune of the Holy Virgin of Socorro is generally known?
- a. Capilla de la Bendición (The Blessing Chapel)
 - b. Capilla del Coso Viejo (The old square Chapel)
 - c. **Capilla del Portichuelo (the little door Chapel)**
 - d. Capilla del Socorro (the help Chapel)

**HISTORIC INFORMATION INCLUDED IN THE VIDEO GAME OF E-CIVELES
AND AVAILABLE BY QR-CODES**

10 Points of interest / Historic sites in each city

(Évora – Portugal, Antequera – Spain, Udine – Italy, Velenje – Slovenia).

This information can also be printed out and distributed to students

10 pointst of interest of Évora (Italy)

Università delle LiberEtà del Fvg (Italia). Texts: Elena Rossi. Images: Debora Aiello



City Summary

Name of the city:

Country:

Link 1:

Link 2:

History

Comments

QR Code

Pictures

Monument Summary

Name of the city:

Name of the monument:

Code:

Building date:

History

QR Code

Pictures

Monument Summary

Name of the city:

Name of the monument:

Code:

Building date:

History

QR Code

Pictures

Monument Summary

Name of the city:

Name of the monument:

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