



I.I.S.S. Piaget-Diaz



die Berater AUSTRIA



EUROGEO BELGIUM



Asociación Mundus SPAIN pistes silidaires
Pistes Solidaires
FRANCE



Replay Network







The European Commission support for the production of this publication does not constitute an endorsement of the contents, which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

# TABLE OF CONTENTS

1. Introduction	
2. About the project	5
3. Pedagogical framework	6
3.1 Students at risk of Early School Leaving: the different profiles	6
3.2 Supporting students at risk of Early School Leaving: pedagogy for success	8
4. Methodological framework: Digital story-mapping applied to didactic	10
4.1 Digital story-mapping: a new approach to media education	10
4.2 Reinforcing ownership of learning in students at risk of dispersion	12
4.3 Identified working tool: ESRI Story Maps	13
4.4 ESRI Story Maps template: the Story Map Tour SM ·····	14
4.5 From ESRI Story Maps to ArcGIS StoryMaps	17
5. My Story Map Module	18
5.1 The My Story Map didactic experience ······	18
5.2 Timing and structure of implementation	20
5.3 The group and the learning process ·······	21
5.4 The role of the teacher	22
5.5 Digital tools and resources within the classroom	24
5.6 Possible alternative settings of implementation	25
6. Learning Objectives ·····	26
6.1 The learning dimension within the My Story Map module ······	26
7. Evaluation	
7.1 Why evaluate?	32
7.2 How to evaluate?	33
8. Learning Materials	35
8.1 Phase 1: Introduction to digital story-mapping	
8.2 Phase 2: Didactic storytelling	41
8.3 Phase 3: Building the digital story-map	51
8.4 Phase 4: Presentation and evaluation	
9. Annex i: resources - learning unit template	<b>7</b> 3
10. Annex ii: resources - learning unit example	
11. Annex iii: resources - learning unit example	
12. Lessons Learned ······	79

# 1. INTRODUCTION

The results of the extensive research which has been carried out in the last decades has shown how the phenomenon of ESL (Early School Leaving) is an extremely complex and multi-faceted social process, which is reflective of a number of inter-related personal. social, economic, education and family-related reasons. It is clear that schools have a key role in addressing ESL, offering a place where pupils should feel comfortable and supported, feel ownership of their own learning and be able to engage in the life of their school community. Especially, it has been highlighted how there should be greater flexibility in the choice of subjects/courses and the provision of additional learning support, including measures to improve the motivation and resilience of young people.

According to the Final Report of the Thematic Working Group on Early School Leaving (2013), developing the capacity of school staff to create and maintain learning environments that support at-risk pupils is of crucial importance to reducing ESL. Teachers need support to develop and adapt different methodologies and skills to meet the needs of individual pupils. The report points out specifically how, as a condition of successful learning, teachers need to strengthen their role as "facilitators of learning".

The teachers, in this context, must then calibrate their action, bearing in mind the new cognitive styles that young people are showing today. The use of new technologies can be a valuable tool in order to promote learning and create a virtual environment that can facilitate the exchange of ideas, materials and information, so that students become actors and co-actors in the learning process, especially in a moment in which many young people at risk of ESL lack a sense of identity or connection with the school.

This is the frame in which the learning module "Preventing early drop-out through digital stories and maps" has been developed within the Erasmus+ Strategic Partnership project "My Story Map".

The module targets teachers, educators and all those professionals involved in working with pupils at risk of dropping out, in order to equip them with an educational tool, based on the pedagogical use of the methodology of digital story-mapping. The purpose is to support and increase the engagement in learning activities of students, aged 15 to 19, at risk of dispersion.

The module aims to provide the framework through which teachers and educators can design a learning experience where the young people are encouraged to investigate and organise in a story flow a part of the didactic programme. With the realization of the story-maps the learners enter a process of interactive participation through which is easier to observe, learn, process, explain and memorize concepts, and which makes them protagonists of the didactic action.

For the module to serve its purpose, the content of this manual has been organized and divided into six main parts:



- The first part outlines the pedagogical framework, setting the premises of the didactic approach envisioned by the module;
- The second part is dedicated to the description of the methodology of digital story-mapping, highlighting its most relevant qualities in regards of the work with students at risk of dropping out, and providing an overview and the deepening of the main working tool to be adopted during learning experience with the students;
- The third part provides the outline of the module experience in terms of the approach and structure, accompanied by an overview of the different learning phases and the main general guidelines for implementation;
- The fourth part goes deeper into the learning objectives of the module, looking at the identified competences to be developed through the didactic experience and contextualising them into the frame of the work on students at risk of dropping out;

- The fifth part is dedicated to present the evaluation strategy to be adopted in the module addressing both teachers and students;
- The sixth part is constituted by the learning materials for the face-to-face sessions which have been selected in order to respond and address the identified learning objectives, divided according to the content and purpose of each specific learning phase. The teachers are free to choose, select and compose the materials according to the needs of their specific working group.

The use digital story-maps represents a different way of learning in which learners get involved and act first hand using their experience and creativity to construct their own learning process, using their knowledge and skills to create products such as photos, videos, digital stories, multimedia presentations which will enrich their curriculum.

# 2. ABOUT THE PROJECT

"My Story Map" is a Strategic Partnership for Innovation project in the field of School Education.

The project aims to develop and test an educational strategy, based on the pedagogical use of the methodology of digital story-mapping, in order to re-engage early school leavers in learning activities and, at the same time, to use the outputs produced as a prevention tool for other young people at risk of dropping out. The specific aims of the project are:

to explore factors of preventing drop-out rates from school through digital story-mapping;

to enhance communication and digital competencies, two fundamental key competencies both for early school leavers and those at risk of early school leaving;

to raise awareness of the reasons for early school leaving and the personal consequences of this decision on one's own life:

to foster an aware analysis of one's own educational pathway in order to redefine life objectives in terms of both educational possibilities and job opportunities;

to make available tools documenting and advising against early school leaving, usable also by future generations of students at risk of dropping out;

to contribute to reducing drop-out rates from school;

Among the numerous projects and initiatives which have been implemented to prevent, intervene against and compensate early school leaving at national and European level, the approach of "My Story Map" aims to bring innovation in several regards:

cross-sectoral approach: the project develops strategies which can be received and implemented by schools, vocational training institutions, life-long learning centres, youth centres and youth organisations;

application of pupil-focused strategies: the project makes use of the motivating potential of new media and the media preferences of young people;

focus on teachers, trainers, educators: the project develops relevant training modules designed specifically to prevent and tackle the phenomenon and it combines in a synergic way actions of prevention, intervention and compensation;

extra-curricular activities: the informal learning approach of the project is fit to meet the pre-conditions of successful educational work with the target groups, as it raises self-esteem, improves motivation and supports learning processes;

personalised learning: the digital story-maps can be highly customized and thus offer very personal learning pathways which are designed on the specific learning needs of every individual.



# 3. PEDAGOGICAL FRAMEWROK

# 3.1 Students at risk of Early School Leaving: the different profiles

Up to a few decades ago, some of the main elements which distinguished the school context for Early School Leaving would have been identified as the following:

9

relationship with the teachers, whose authority was acknowledged by parents, even in case of possible errors;

9

respect of the programmes established by Competent Authorities, but well-known and shared at national level;



evaluation criteria limited to the cognitive sphere, but well-defined and well-known;



necessary students commitment, in order to reach educational standards;

The crisis of values such as authority, culture, personal responsibility and meritocracy, has invalidated (but not fully replaced) this system, and larger number of teachers are now pointing out how there seems to be an increasing lack of commitment for studies, combined with the increasing difficulty that teachers find to motivate students.

The lack of commitment to study corresponds to a reversal of the cognitive categories from which young people draw in order to acquire a basic cultural background: systematicity has been replaced by occasionality, rationality by emotionality, critical sense by group consensus, tradition by fashion. The impact is that youngsters' personality is permeated by an emotional dimension, having difficulties to get a solid structure according to logical, consequential and rational categories. Today, young people rationalize and legitimize their refusal to apply themselves in studying topics they don't feel emotionally involved or directly interested in. Their approach to study is full of a strong subjectivism, which forces the most motivated teachers to invest a large part of their time in the effort of motivating their students.

Frustration among teachers dealing with unmotivated students has been on the rise, as it is getting more and more difficult to obtain from students to study not just what they like, but what could be part of a rational and structured educational pathway, which will offer in the future a solid and articulate basis to their interests. This approach is partly due to the fact that school as an institution, as well as its educational offer, is losing its traditional credibility. Students, not acknowledging its authority, are inclined to trust only in their own instinct, instead of putting their trust into a formal educational pathway finalized to obtain educational degree.

In such a disorienting cultural environment, some students can easily become "at risk", because they are subjected to the risk of being overwhelmed in a context without clear cardinal points. There are several definitions of "at risk" students, each one with its own perspective and specific criteria, which can be suitable to some contexts and less to others. Paradoxically, we can say that every student is at risk (except, perhaps, those few and lucky exceptions with excellent abilities and a supportive environment) because being "at risk" doesn't imply anymore exclusively school failure in terms of grades and evaluation but, in the wider sense, failure or limited development of students' very own skills and talents.

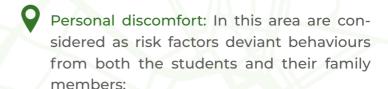


Among the many analyses that have been carried out on the issue of Early School Leaving, a significant number of experts agree on the fact that the phenomenon of Early School Leaving includes a series of problematic situations much wider than that indicated by the statistical data.

Ferraro and Burba (2017) state how "... Early School Leaving must be seen not only as an escape from the obligation or abandonment of the school by the students before the end of the cycle of studies undertaken, but as a reality that also includes repetitions, delays with respect to school age, school changes, irregular frequencies, even numerous cases of poor performance compared to the possibilities. (...) There is a dispersion of talents every time we are faced with a feeling of serious malaise that prevents the pupil from living a fully formative educational experience. It is an individual and social problem, to be attributed to a multiplicity of factors ".

Similarly, Ambrosini and De Simone (2016) pointed out how delays, repetitions, absences, irregular frequencies, and poor quality of educational outcomes can be considered as indicators of school failure and academic dispersion leading to abandoning studies. They say it represents symptoms of social uneasiness connected to marginalization and risk in cultural, social, economic and family contexts.

For the detection and diagnosis of risk conditions, Frymier (1992) identified the correlation between five risk areas and found out how the exposure to even one of those areas Could severely increase the risk of the pupil being then exposed also to the others ("Growing up is a risky business and schools are not to blame", 1992). The five areas identified are:



- isolation from the group;
- denial towards the idea and responsibility of growing up;
- youth gangs affiliation;
- anorexia or suicide attempts;
- personal use of alcohol or drugs;
- apathy, asthenia, dysthymia;
- different types of abuse (doping, sex, violence);



School failure: In this area are considered as risk factors the ones coming from the school context directly:

- lack of integration with classmates;
- low school grades or marks (according to the school path attended);
  - failure in extracurricular activities;
  - older age compared to the average of the class;
  - excessive absenteeism;
  - low self-esteem;



Socio-economic family situation: In this area are considered as risk factors elements such as parents' professional status or education level and their attitude towards education:

- employment and education status of the father;
- employment and education status of the mother;
- parents' attitude towards education;
- educational and communication styles within the family,



Family tragedies: In this area the term "family tragedies" refers to situations such as illness, loss of a family member or a friend, loss of parental employment or illness of the students themselves:

- serious or longstanding illness of a parent;
- death of a parent or family member;
- death of a friend: illness, accident:
- student's illness: more or less disabling;
- loss of a parental employment;



Family instability: In this area are considered as risk factors elements such as family mobility or situations of separation or divorce:

- family disintegration;
- frequent displacements;
- frequent school changes;
- parents' divorce;

Quality schooling then becomes a crucial factor in preventing social exclusion by being able to support students in achieving their educational success, to motivate studies, and regain the trust of the students and families.



# 3.2 Supporting students at risk of Early School Leaving: Pedagoghy for Success

The lack of comforting data according to which students still too frequently drop out of school reinforces the need to prepare interventions that, overall, can help to stem the phenomenon. Fight against ESL must be seen then from a preventive point of view. The strategic choice is to intervene upstream, promoting an image of the school as a welcoming place, open to diversity and respectful of individual specificities.

The basic idea is to encourage the interest and curiosity of the students by proposing innovative and attractive content with inclusive, participatory teaching methods based on direct experience, using educational tools of a technological nature. In other words, traditional teaching leaves more and more room for innovative teaching - an expression of the most recent insights of contemporary pedagogy – in order to allow the school to adapt its educational action in accordance with new needs. The result is the opportunity:

- to improve the school's relationship with the external environment (open school);
- to increase its adherence to reality starting from the students' interests/knowledge needs (innovation and technology);
- to encourage involvement, interest and curiosity by proposing attractive contents with participatory teaching methods oriented towards sharing and collaboration;
- not to underestimate the importance of creating a positive, inclusive and pleasant environment where everyone can find adequate support (especially in situations of particular hardship, for the management and overcoming of particular difficulties);

In this context, the school is not only concerned with transmitting notions relating to the various disciplines, but it also opens up to a concept of culture that takes on new and transversal forms of knowledge. In this way, the traditional school goes beyond the concept of monotony and becomes a "place of life" where it is possible to combine opportunities to acquire knowledge and skills, to improve knowledge and skills and, at the same time, satisfy the cognitive interests of the pupils taking care of the motivational aspect.

A pedagogy that aims to be open, successful and inclusive towards students at risk of drop out should foresee:

- 1. Taking on a new attitude towards disadvantaged students
- · Appreciating their intellectual qualities;
- Emphasizing their capacity building and not just repairing deficit;
- Becoming familiar with their type of culture to avoid misreading differences with deficit;

#### 2. Adjustment of the curriculum

- Focusing the attention on complex, meaningful problems;
- Centring teaching on basic skills in a context of global tasks (focusing on the problems' overview);
- Making students discover the relationships between school notions and skills and the extra-scholastic experience (giving concrete meaning to study meant to face life and vice versa);

# 3. Application of new teaching strategies

- · Providing a meaningful model of thinking strategies;
- · Encouraging multiple approaches;
- Providing cognitive support to enable students to perform complex tasks;
- Making dialogue the central medium for teaching and learning.

#### 4. METHODOLOGICAL FRAMEWORK: DIGITAL STORY-MAPPING APPLIED TO DIDACTIC

# 4.1 Digital story-mapping: a new approach to media education

A recent study conducted by INDIRE ("One to one in education" - October 2015) showed that in Italian schools where the use of technology in education is widespread, drop-out rates are between 0% and 8%, well below the Italian and European average. Digital technologies as a teaching/learning tool are in fact an additional resource for the teacher. Digital literacy (media literacy, media education) is one of the tasks of the 21st century school, but in what terms?

Completely resisting the change also to maintain authority and cognitive primacy, means closing oneself to the opportunities that the digital revolution offers to schools and risks definitively distancing the teacher from the social universe of learners, undermining the effectiveness of teaching and the possibility of communication with the students themselves.

The effort of teaching today is to enhance its (digital) media tools, restoring them a high dignity. This is not promoting a generic digital literacy, but rather adopting a methodological media education, capable of producing organized knowledge thanks to digital media.

Nowadays, Geo-ICT tools, open data, multimedia on the web and Web 2.0 expanded the ability and audience for storytelling through maps. There are now several different existing platforms that enable people to tell stories through maps, such as Esri Story-maps, Odyssey JS, StoryMaps JS, MapStory, Cov-On and others. All these programs offer different and unique ways to present textual and visual information, allowing users to choose which features would best support the needs of their presentations, in terms of level of accessibility, interaction, complexity, role of the different elements.

These new technologies and ways of presenting content doesn't exclusively allow geography to be examined more in depth, but instead they become a vehicle to spread many other disciplines, promoting also interdisciplinarity and innovation in the issues that are addressed at school, all while developing knowledge and focusing on easily accessible applications (smartphones and tablets). It is a system which ultimately also tackles the misalignment that often seems to exist between the school context and the students' one, putting pupils in touch with a world they know by conveying content that may be far from them thanks to tools that instead are very close to them.

With digital story-maps one can tell stories, summarizing events that have happened over time, showing the change. Unlike fictional narrative, historical and autobiographical narratives are built on a storyline which has a chronological demarcation that implies a beginning and an end, a guiding thread, a demonstrative and interpretative aim, as well as explained and circumstantiated facts.



The work on the digital story-maps cannot be reduced simply to the process of learning how to "organise through media" a chronology, as it not only implies the ability to make good use of logical connectors and subordinates in order to build a logical progression of the developed "discourse", but also gradually allows pupils to:

identify the key actor(s) and place(s), giving useful temporal references; mobilize the general knowledge allowing to characterize the object of the narrative; respect a chronological order in the treatment of the facts;

show in a simple way the causes and the consequences of an event and/or the actions of a character and mention, where appropriate, the novelty or the peculiarity of this or that moment in relation to a previous situation;

The main aim of engaging pupils in a process of digital story-mapping is to highlight and thus give meaning to an event, a situation, a period of time, a topic, and having them structure their thinking while looking for the causes, the connections and the scope of the facts that they narrate in their stories. Pedagogically, story-mapping offers the possibility of giving new colours to a fact, to analyse and get to know a situation in a deeper way.

Learning how to communicate and express oneself through a narrative continuity increase the ability to structure and formulate exactly what one wishes to state. By engaging in this process, the pupils ultimately learn not only how to identify and describe facts and events, but how to make sense of them.

The tool provides high levels of active engagement as it allows pupils to personalise their contribution using multimedia products and ICT skills, it offers possibilities for creative collaboration, the potential for changing perceptions and opportunities for deep learning through discussion and sharing of the story-maps. The process then contributes positively to the development of basic and transversal skills and key competencies such as communication, digital competence, cultural awareness and expression, mathematical competence and basic competences in science and technology.

Pupils have the opportunity to engage with the didactics in a different way, a way that enhances and strengthens a sense of ownership over their learning. However, it is fundamental to be aware of how much ownership is a characteristic that takes time to encourage.

# 4.2 Reinforcing ownership of learning in students at risk of dispersion

The process of production of a digital story-map is based on three main elements:

offering choices: a successful digital story-mapping process and a high quality digital storytelling product usually grow out of significant pre-planning and opportunities for youth to experience "choice within structure". With digital story-maps the users are called to choose what is the story that they want to tell and how they want to tell it, supported by a flexible structure which offers them multiple possibilities. It is important to provide students with choices while also helping them become more aware of their own needs, interests, preferences, internalizations, values, goals and aspirations. Choice by itself is not effective unless students develop the "capacity to choose" what best meets their personal learning needs and goals;

encouraging voice: the work with digital story-maps allows people to engage in a process of contextualizing and building their own personal narratives of a chosen topic while focusing as well on the production process with a hands-on approach to digital technologies. Multimedia is a language that young people easily relate to, and consequently, serves as a method that effectively draws young people to active participation, creativity and expression of their own opinions. This setting allows users to engage in a process of reverse engineering, where young people are asked to deconstruct a given subject or a topic and re-tell it from their own perspective and with their own voice.

encouraging leadership: the process of reverse engineering that takes place in order to re-elaborate and present the content and the story fosters and encourages leadership skills in the users as they are called to guide the process and structure it according to their vision, making sure to have all they need to match their plan. This implies being able to organise the work effectively and to show the confidence and awareness needed in order to present the final work to others. Devising and performing digital stories encourages youth to move beyond the role of consumer and into the role of "producer" of media. At its core, digital storytelling invites youth to combine technology, performance, and personal perspectives to reflect on and contribute to the world around us, thus re-engaging them in social and learning processes.

The use of this methodology is expected then to favour, in the students, a greater sense of ownership, awareness and self-esteem, also thanks to the feedback received through the exchange and comparison between peers. Moreover, the recognition and evaluation of this activity, as a formal act within the school setting, is an important aspect for the students; in fact, if positive, it could be seen as a key to reading the personal educational history of the students and have a great influence on their behaviour and future choices. The consequences of the evaluation events will not only influence the continuation of the studies, but also the perception of oneself, on the confidence in one's own strengths and abilities, on the esteem of teachers and companions.

# 4.3 Identified working tool: ESRI Story Maps

The platform chosen for the creation of the digital story-maps within the framework of the My Story Map module is ArcGIS Online. ArcGIS Online is a Cloud-based mapping and GIS platform, developed by the international company Esri (Environmental Systems Research Institute) and which provides a comprehensive set of professional tools for compiling, visualizing, analysing, editing, managing, and sharing geographic data.

Since 2012, among the components related to ArcGIS are ESRI Story Maps tools. They comprise a series of web applications, user friendly and designed for non-technical audiences. which makes it possible for people with different digital abilities, to tell stories by designing and creating their own story-maps. The system acts as a robust storytelling medium and social media tool, and allows users to combine geospatial data with narrative text, photos and multimedia, including video, to visualize a theme or sequential events with attractive designs. ESRI Story Maps highlights the elements of the maps just as much as it highlights other media, which makes it a very stimulating tool to work with on with digital storytelling. This is because it offers a level of flexibility in terms of the work with the maps which is quite wide.

In order to see a story-map, users need to be connected to the internet. The story-maps can be viewed on all the commonly used web browsers and computers, tablets and phones, and all the application templates have responsive layouts that adjust automatically when displayed on smaller screens, such as on mobile devices, or if they are embedded inside smaller frames on web pages.

The digital story-maps, in addition to the traditional "power" of maps, are able to convey much more effectively the message that the authors wants to tell with their "story". It is possible to give life to different forms of narration, including: the journey told step by step or the itinerary of an excursion, the territory revealed through its points of interest or described through a catalogue of thematic maps, the comparison between two images of the same space in different periods, etc.

The My Story Map module uses interaction with the ESRI Story Maps platform to engage young students at risk of dropping out in the process of contextualisation and re-elaboration of didactic content in the form of a diaital story-map. The platform closely supports the users in finding the best way to express the story and narrative that they want to tell. offering a variety of application templates that respond to different needs of the storytellers and have different functions. Each template has a tutorial page that guides the user through the creation phase, which also highlights which components can be incorporated in the story, allowing the authors to choose which kind of user experience they would like to design for their audience.



# A Sequence of Place-enabled Photos or Videos



#### Story Map Tour<sup>SM</sup>

Present a set of photos or videos along with captions, linked to an interactive map. It's ideal for walking tours or any sequence of places you'd like your readers to follow. Choose between three different layout options, including a new Side Panel layout that makes your beautiful photos fill most of the display.

BUILD

OVERVIEW GALLERY

LLERY TUTORIAL

FAQS

BLOG

One of the templates which has been identified as very suitable for the learning experience of the My Story Map module. This the Story Map Tour sm, which presents a linear, place-based narrative featuring images or video where each multimedia content in the tour narrative is geo-located.

The template has been chosen to demonstrate in the module for two main reasons:



linearity and simplicity: a story-map is a complex multimedia product, the Story Map Tour SM template ensures and preserves the rich nature of the final products but keeps a manageable level of difficulty when it comes to the creation process. The translation of students' stories into a digital story-map is an expressive exercise for the participants, and the platform shouldn't absorb too much time during the experience, but rather blend in organically. Practising the ability of organising the content and making logical connections is one of the main objectives that the module wants to achieve in regards of the development of the learning skills of the participants. This template perfectly combines the three core methodological pillars of the experiences (mapping, storytelling and media expression) and encourages the authors to carefully select their story material;



the user experience: the Story Map Tour sm template presents multiple options for user interactions. The readers can choose to either click sequentially through the tour or browse by interacting directly with the map, or using an optional thumbnail carousel. The main audience of the digital story-maps will be mostly other students, the fact of giving them the chance to have an active user experience, in which they can choose to explore the story-map looking at it also from different perspectives and in a non-sequential order, is what makes digital story-mapping stand out in comparison, for example, to digital storytelling. According to the high levels of public participation can lead to increased public impact Spectrum of Participation developed by the International Association of Public Participation,: the spectrum clearly describes how "inform" and "consult" are now mostly considered as passive activities, while "involve, collaborate and empower" generate higher levels of active engagement. This kind of user experience fosters the active engagement of the readers which are no longer only listening to or reading a story, but which develop an ownership of the story as well through the interaction with it.

The Story Map Tour SM template allows the authors to choose between three different layouts that can be customized through the Settings button on the left side of the builder:



The three panel layout displays the story on its sequential order in a carousel of thumbnails at the bottom of the map, allowing the audience to see the timeline of the story, and then divides the story-map in two parts, equally important: one section dedicated to the multimedia content and its related text and the other dedicated to the map. The audience can view the story-map through the interaction with all the panels, following the chronological order or simply by clicking and selecting different positions on the map or different thumbnails in the carousel.



The integrated layout offers the same possibilities of interaction as the three panel layout, the main and only difference is that the section dedicated to the map has more space and ends up becoming the main focus, as the multimedia content section becomes a panel which is not visually separated but integrated in the one of the map.



The side panel layout is a new feature of the Story Map Tour sm. Also this one has three separate panels, but in this case the one that has a more predominant position is that which contains the multimedia content and is shown on the side. The map becomes a smaller section and, instead of having the timeline of the story displayed, this layout gives more space to the element of the text that accompanies each chapter of the story. The fact of not having the timeline in clear, makes the audience waiting with more anticipation for the next steps and it provides a more sequential and classic storytelling experience, even though it is still possible for the audience to read the story-map in a non-chronological way through the direct interaction with the elements on the map.

By choosing a specific layout, the authors can give more relevance to some of the elements of their story-map, also reflecting what their personal process of mapping their stories has been, on what they focused more significant and on what they discovered during their exploration.

# 4.5 From ESRI Story Maps to ArcGIS Story Maps

Starting from July 2019, Esri has launched a brand new platform for digital storytelling through maps that goes by the name of Arc-GIS StoryMaps and that is now available for the Esri community alongside the templates of the Esri StoryMaps platform. Esri is currently working in order to bring all the classic templates and features into the new platform which will be taking over the previous one by 2024.

At the moment the new ArcGIS StoryMaps is based on a scrolling narrative layout, which can be accompanied by a combined set of panels that readers can scroll through and access different media (image, video, map) associated to a specific narrative block. The new platform, once fully operational, will then allow authors to combine different templates elements thus providing new creative ways to design and engage with one's own digital story-maps.



# 5. "MY STORY MAP" MODULE

# 5.1 The My Story Map didactic experience

The My Story Map module is an experience that integrates elements of learning through the tool of digital story-mapping within the school context. Through the integration of these elements in the didactic programme, the objective of the action is to stimulate the motivation and self-awareness of students at risk of Early School Leaving.

The action is based on the idea that maps evolved from being simple outlines for support to real digital content organizers (such as online resources, digital books, in-depth maps, audio, etc.). The maps then become multimedia maps that, if properly organized, can be traced back to self-consistent learning units. In this didactic model, the teacher has the task of creating, through a collaborative didactic approach based on group work, these learning units that will serve as a basis for individual study. The teacher assumes the role of facilitator and organizer of the activities, thus structuring the "learning environments" in which the students, favoured by a positive relational atmosphere, transform each learning activity into a process of "group problem solving", achieving objectives whose realization requires the personal contribution of all.

The My Story Map module aims to promote in the student at risk a sense of ownership and re-appropriation of the educational content and the learning experience as a process. It does so by working on the concept of self-directed learning where the student, once the topic has been selected, is the one who is in charge of designing what could be one's own personal re-elaborated version of the topic through means of expression related to the world of digital technology. In this way the student learns to deconstruct a set of information and then reconstruct it on the basis of one's own logical connections and intuition, searching for one's own learning style.

All this happens in the context of the class where, through a process of working in small groups, students at risk of dispersion are engaged in the production of a digital story-map together with the other classmates, learning, in a cooperative dimension, how to develop a greater independence in exposing and dealing with a didactic subject, thus becoming more in control of the entire learning process, stimulating creativity and expression.

The main elements of the module are:

a single-disciplinary or interdisciplinary learning unit (didactic content);

principles of storytelling and digital storytelling applied to teaching;

introduction to the tool of digital story-mapping through the experience with ArcGIS and the ESRI Story Maps platform;

The planned implementation structure has been designed to cover a total of 15-25 hours for the entire learning experience, including hours dedicated to individual and autonomous students' study and production at home.



The module is organised in four phases.

# PHASE 1: INTRODUCTION TO DIGITAL STORY-MAPPING

The first phase aims to introduce and make students familiarize with the methodology of digital story-mapping, in particular through the tool of the ESRI Story Maps platform. In this phase the experience with ArcGIS can be used both as a team building tool to strengthen the group dynamics of the working groups, and as a way to give students additional resources to learn how to structure a narrative through the platform, addressing these first dynamics and talking about themselves.

envisioned number of hours:

3

#### PHASE 2: DIDACTIC STORYTELLING

The second phase has a variable duration depending on the nature of the module - whether it is a multidisciplinary pathway that involves more than one teacher or a single disciplinary course on a specific subject that requires the presence only of a single teacher. The aim of this phase is to apply storytelling elements, inputs and tools to the didactic programme in order to give students additional stimuli on how to reconstruct, revise and reconceive a school topic in a narrative key, introducing elements such as the narrative arc, the points of view, all elements through which students can acquire skills on alternative ways to relate to some content.

envisioned number of hours:

between 4 and 8

# PHASE 3: PRODUCING THE DIGITAL STORY-MAP

The third phase, also of variable duration, is the concrete production of the digital story-map by the small groups. The group, supported by the teacher and thanks to the tools acquired in the previous phases of the module, elaborate the skeleton of its story-map, identifying the fundamental steps, the connections between the different points and the most effective and relevant multimedia contents to associate and incorporate, dividing roles and responsibilities and planning the production of those contents - whether in the form of photo, video or audio. This is followed by the organization and research of material and actual production of the story-map, which takes place outside the school context in the autonomous and independent working framework of the group.

envisioned number of hours:

between 5 and 10

#### PHASE 4: PRESENTATION AND EVALUATION

The fourth phase is dedicated to the presentation of the individual productions, during which the working groups are invited to present to the rest of the class their results and story-maps. The sharing is followed by the evaluation of the experience as a process, which takes place both through the teacher's evaluation and through the self-assessment of the students, in groups and at individual level, in order to be able to share and reflect on what competences have been developed during the module.

envisioned number of hours:

3

# 5.2 Timing and structure of implementation

Teachers and facilitators are free to choose, select and compose the learning materials provided in this booklet according to the needs of their specific working group, and also to possibly identify new activities connected to the module's learning proposal which could be integrated in the experience coming from the teachers' personal backgrounds.

The timing of implementation can be adapted by the teacher according to the available resources and, once again, to the needs of the students and the didactic programme. The module run over the period of time of one or several weeks, even though the recommendation would be not to let too much time pass in between each session and to try to maintain as much as possible a regular structure.

The module can be implemented over a variable number of sessions, incorporated within the regular didactic programme. The envisioned duration of the experience is set between a minimum length of 15 to a maximum of 25 hours, distributed among the 4 different phases.

A reasonable number of hours is strongly recommended for what it concerns both the second and the third phases, in order to give to the students the right amount of time to really process the learning content and design their own digital story-map accordingly.



# 5.3 The group and the learning process

The dimension of the work in a small group sets the conditions for the experience to go deeper on its long-term asset, encouraging more reflection, feedback and self-directed learning and, at the same time, ensuring more time for the process of inclusion and free expression of all participants and strengthening of the group relationship, increasing the level of trust, team work and cooperation.

Many social and interpersonal skills can be learned within a group process such as the ability to collaborate with others, to exercise interpersonal influence, to fill a responsible role, to make decisions and solve problems, to organize and perform complex organizational tasks. The development of such skills reinforces people's belief in their ability and improves their self-confidence, and in this way the individual empowerment process is reinforced in the group, as well as receiving a meaning of doing for others.

On the other hand, it is a fact that learning in a group framework is inherently more complex than competitive or individualistic learning exactly because learners have to engage simultaneously in task work and teamwork. Placing people in the same room, seating them together and telling them they are a group does not mean that they will support each other and cooperate effectively. The approach of cooperative learning has as a main goal to reach the full potential of the group framework. In order to achieve this, one of the objectives of cooperative learning is to work towards the direction of fostering promotive interaction, preferably face-to-face, which occurs when group members share resources and help, supporting, encouraging and praising each other's efforts to learn. It is through the promotion of each other's learning that learners become personally committed to each other as well as to their mutual goals.

The purpose of cooperative learning is to make each member a stronger individual in one's own right. People learn together so that they can subsequently perform higher as individuals, which requires finally the development within the group of a sense of individual and group accountability. The group must be accountable for achieving its goals and all the members must be accountable for contributing to the process with their share. Individual accountability exists when the contribution of each individual learner is assessed and the results are given back to the group and the individual in order to understand who may need more assistance, support, and encouragement in dealing with the learning process.



#### 5.4 The role of the teacher

Starting from the intuition that the most delicate moment of the didactic process is not accessing the content but their application and re-elaboration, a reversed, upside-down teaching approach here represents an opportunity to redefine the role of the teachers. The teacher then, rather than indiscriminately introducing notions not assimilated by all in the same way, takes on a more complex role that supports the "extraction" of the potential from each student.

The switch from the more traditional lesson taught from the front, to a more horizontal learning approach should not be seen as a contrast but rather as a complementary action. Horizontality and verticality are two dimensions of the same level, as is already the profound experience of many teachers, who have always accompanied their explanations with dialogue with students and the use of images, listening, texts to comment or translate, case studies, etc.

As a preliminary condition to implement the module, the teachers need to be able to:

000

Understand and deal with students at risk of dispersion; Support the personalization of learning processes; Integrate and stimulate informal learning experiences;

Promote the development of soft skills;

When it comes down to this module module, in the first instance, the teacher is a facilitator who, thanks to one's own empathic capacity, knows how to build "useful" interpersonal relationships and create collaborative contexts that favour the harmonious development of the person and serene learning. In the My Story Map approach, teaching that fosters motivation to learn is a thoughtful process of aligning student choices so that students see the value of these choices as tools for meeting their learning needs and goals.



The teacher, as a facilitator of the process, should:

- set clear learning goals: help students understand that the choices they can make are within the context of the learning goals set by the school didactics framework. Students need to know exactly what is expected of them, how they will be graded, and what supports will be available to them if they need help learning the information or skills. When teachers communicate performance expectations, they must consider the diverse backgrounds and experiences of each student, as learning outcomes that focus on each student's abilities and strengths lead to more positive student development and engaged learning. The main part of the process of offering students meaningful choices is clarity about how the choices relate to the learning objectives or standards. Teachers can provide students with choices about how they may demonstrate mastery of a concept, approach particular assignments, work independently or with peers, and achieve at their competency levels. When students have the opportunity to be involved in making these choices, they take more responsibility for their own learning.
- provide feedback: give students precise information about the particular skills they have acquired and/or need to improve in order to be successful in their learning. Students learn to use feedback from their teacher and peers to change their conception of how competent they are in different subjects or learning activities. Feedback also helps students make better learning choices.
- encourage students to assess their own learning progress: by using charts or keeping journals, so they can evaluate the progress they are making as they acquire relevant knowledge and skills. As students learn to monitor their own progress, they become more motivated by their successes and begin to acquire a sense of ownership and responsibility for the role they play in these successes.

In this context where the ways of learning are changing at a very fast pace and the "digital natives" have entered into the school, we are witnessing a progressive evolution of the teaching profession, aimed at the search for new approaches to knowledge, new teaching styles, new ways of building the knowledge and skills of students, where the teacher must have disciplinary, methodological-didactic, relational, organisational, pedagogical and research skills.

It is relevant to acknowledge how the role of the teacher in this kind of environment is even more important, and often more demanding, than in a traditional one. Within the classroom, the teacher continually observes the students, providing them with feedback relevant in the moment, and assessing their work, while being able to tolerate controlled chaos in the class. Even though teachers take on a less visibly prominent roles in a such a context, they are indeed the main essential ingredient that enables learning to occur.

# 5.5 Digital tools and resources within the classroom

To carry out the action of this module, teachers can use various tools to facilitate the digital teaching/learning process, such as the use of PC, IWB (Interactive White Board), tablet, smartphone, audiobooks, etc. These means are particularly useful for inclusive teaching, especially in the presence of students with learning disorders or educational special needs.

Especially the IWB is a tool with innumerable potentialities that allows teachers to work directly on self-prepared materials having the possibility of accepting questions and contributions from students, from the internet and from various other sources. Through the IWB and other digital tools teachers can:

- involve the whole class, making the pupils active in the learning process by exploiting not only the predominant aspects of the readwrite, but all those elements that allow a better learning (visual aspects, sound, etc..);
- elaborate multimedia materials useful for teaching promoting the maximum involvement and motivation of students;
- save and send all the information displayed on the interactive whiteboard so as to provide support for review, rework and useful materials for other lessons.

Students can benefit from the use of interactive whiteboard and other technological tools because:

- they are actively involved in the learning process;
- they participate in the co-construction of the lesson and feel responsible for the learning project;
- they have an increase in motivation by having different sensory channels of entry of information (visual, auditory, tactile) with a positive impact on attention and storage;
- they can take notes and highlight concepts directly on the surface of the board and save the material to be reviewed at home;
- different cognitive and learning styles are enhanced by offering support to students with special needs at the same time.

In addition to that, with the arrival of the digitalization of school texts, the teacher will then have a tool that allows students to:

- interact with the digital book enriching it with text, graphics and multimedia content;
- connect useful resources (links, attachments of any format, voice notes) directly on the page of the book;
- make summaries automatically and quickly rework them in the form of a map;
- schematize through the use of multimedia maps:
- ogo from the text of the book, text notes or web pages directly to the map through a dedicated and efficient environment;
- collect information quickly from any digital medium and quickly transform them into structured notes or maps.



# 5.6 Possible alternative settings for implementation

The module is flexible and can be easily adapted. A possible alternative of this action for didactic purposes can be that of offering a specific programme targeting exclusively students at risk of dispersion, having the students working in small groups in order to promote peer learning and mutual support, or individually but still within the frame of a group process.

Within the project My Story Map a multiple-session workshop has been designed, addressing young people who dropped out of an educational or training aimed at motivating early-school leavers to re-engage in learning experiences. In this workshop the youngsters are involved in an experience of self-discovery and self-reflection focused on the context, the causes and the reasons which led them to the decision of dropping out, and aimed at enhancing their self-expression skills through a focus on digital media content production. The creation of their personal digital story-map is at the same time then a point of arrival and a starting point for the learners as it represents a process of self-empowerment which is finalised to inspire and foster a renewed sense of identity and ownership of one's own story, so that a new steps can potentially be taken towards a new direction within one's own life-long learning journey.



# 6. LEARNING OBJECTIVES

# 6.1 The learning dimension within the My Story Map module

In recent years, learning has increasingly not only been measured in terms of knowledge but also in terms of the ability of individuals to use their knowledge in order to apply it in a practical way and in a variety of contexts. If any activity is an opportunity to learn, then digital story-mapping, with its whole complex of knowledge and know-how, is definitely a concentrate of skill development, especially for what it concerns skills which are needed in both the present day and in the future.

Many schools are now looking to integrate "soft-skills" as a stronger component in their curriculum, including social emotional learning. Often defined as the 21st century skills, these competences not only imply intangible qualities like, for example, empathy, but also include abilities like problem solving, working in a team and using technology in order to solve problems creatively. The need for these skills has been evidenced through a growing body of research, as well as surveys and state policy plans.

# 1. COMMUNICATE MEANINGFULLY

- 1. Understanding and expressing clearly one's own thoughts and emotions;
- 2. Being empathetic;
- 3. Listening effectively;
- 4. Describing and explaining ideas;
- 5. Public speaking;

The action of the My Story Map module is based on communication, which is one of the main competence areas developed in the different phases of the learning experience. During the activities, participants strengthen their self-esteem and improve their ability to express themselves and their communication skills. The methodology of digital story-mapping is based on the ability to organize one's thoughts in a flow, and translate educational content into an accessible, personalised and transferable form. It fosters in the students the ability of describing and explaining ideas to others, presenting them in a dimension of both a small and big working group thus exercising one's own public speaking ability. Listening is also important, which needs to happen with a different awareness, as students are encouraged to pay closer attention to the presentation of the works produced by others which then becomes an important element in order to create a deeper and more conscious connection with the other. Communication is seen here as a vehicle for exchange and cooperative learning that enhances the skills of all the participants.

# 2. DIGITAL COMMUNICATION

- 1. Managing digital identity;
- 2. Interacting and sharing through digital technologies;
- 3. Using of common computer software;
- 4. Browsing, searching and filtering data, information and digital content;
- 5. Netiquette;

In 2001 the term "digital native" was coined to describe the generation of people who grew up in the digital age and therefore are comfortable with digital technologies since early age and consider them an integral and necessary part of their communication and learning, but more generally of their lives. On the other hand, the fact that young people are born within the digital age and are experienced digital users does not make them automatically also experts in regards of how these technologies are functioning. Within the My Story Map module participants explore deeper the dimension of information and data literacy, enhancing their ability to articulate information needs, search for data and content in digital environments while creating and updating their personal search strategies. In this historical moment, the ability of comparing and critically evaluate the credibility and reliability of data sources and digital content is becoming essential. While working on the production of their digital story-maps the students go through the analysis, interpretation and evaluation of the data, learning and finding strategies on how to organise, store and retrieve them and processing them in a structured environment.

#### 3. DIGITAL CONTENT CREATION

- 1. Using digital technologies creatively;
- 2. Producing written content for a range of audiences/recipients and media;
- 3. Taking, editing and sharing digital photographs and video;
- 4. Creating web pages and other web-based presentations;
- 5. Having experience with copyright and licenses;

In the context of the My Story Map module, the competence of digital content creation is closely linked to the idea of expression and more specifically of self-expression, i.e. how digital technologies and media are used to express a specific topic, concept or an acquired competence. Communication is fundamental, combined with the technical and practical skills of popular media such as: photography, video-making, audio-recording, music and the use of sound and writing through platforms such as blogs or other web pages. The module emphasizes as well the importance of becoming aware of the fact that what is produced is to be considered an intellectual property, and consequently learning to evaluate both one's own production and that of others.

#### 4. PERSONAL AWARENESS AND RESPONSIBILITY

- 1. Trusting others and being trustworthy;
- 2. Recognising one's own obligations and responsibilities;
- 3. Taking ownership of one's own goals, actions and behaviour;
- 4. Celebrating one's own efforts and accomplishments;
- 5. Making choices that benefit one's well-being and safety;

Another important element within the My Story Map module is a dimension of personal development. When targeting young people at risk of dispersion, one of the main objectives is to work with them on the concepts of empowerment and personal development, which implies a deep focus on the ability of personal awareness and responsibility. The approach here is to shift roles: young people at risk of dispersion should not be isolated and should not be considered as passive and defenceless victims, but should rather be assigned an active role. This can happen through the recognition of the things they do well, of their own success, of their talent. By developing this awareness, learners become able to make more constructive choices in terms of skills and take on a relevant role within the class group.

#### 5. FLEXIBILITY AND ADAPTABILITY

- 1. Dealing with ambiguity and uncertainty;
- 2. Being willing to leave one's own 'comfort zone' in order to progress or develop;
- 3. Adapting quickly to new situations;
- 4. Being resilient;
- 5. Driving change;

In today's fast-moving society, it is normal for change to be very present in the lives of young people. Very often the phenomenon of Early School Leaving is linked to changes in young people's lives that have influenced them. Young people do not always have the tools and resources to react positively by making the most of the new scenario in which they find themselves. For these reasons, the competence to reflect on one's own adaptability becomes very relevant when it comes to learning didactic contents and concepts that are not easy to understand, difficulties that could lead to Early School Leaving.

# 6. LEARNING TO LEARN

- 1. Understanding one's own strength and weaknesses;
- 2. Setting goals and targets for personal growth, development and achievement;
- 3. Committing to learning, study and/or act;
- 4. Reflecting on experiences to maximise learning;
- 5. Seeking advice, information and support;

Learning to learn is another extremely relevant skill to develop in order to foster empowerment and self-awareness. This dimension is very much present in the module and is continuously encouraged, not only through the process of production of the digital story-map, but through the whole learning experience, as one of the main objectives of the module is to show that learning can be approached in a fun, active, positive and empowering way and young people can engage successfully and thus prevent Early School Leaving.

#### 7. ORGANIZE EFFECTIVELY

- 1. Completing tasks on time and to the required standards;
- 2. Keeping focused;
- 3. Multi-tasking: making progress with several tasks and responsibilities at the same time;
- 4. Working under pressure;
- 5. Planning and prioritising tasks;

In the setting of the My Story Map module, the competence of effective organisation plays quite an important role, especially for what it concerns the creation process of the digital story-map. There is ultimately a deadline to match and the phase of selecting, sorting and organising the materials together requires a multi-tasked and multi-focused quality of engagement and participation. It is a way to explore the sphere of personal efficiency and effectiveness applied to focus and motivation. Very often, whenever people are engaged in something that they consider meaningful learning, all of a sudden they have very efficient organisational skills, while instead they lack those and they feel much more listless and indifferent and struggle with focus whenever this kind of engagement is not taking place. Participants are invited to reflect and observe how much this change in their behaviour while being engaged in a cooperative and experiential learning, which can stimulate and activate very different psychological and cognitive channels.

#### 8. CREATIVITY AND SENSE OF INITIATIVE

- 1. Seeking out new development opportunities and experiences;
- 2. Considering new perspectives;
- 3. Making and implementing plans;
- 4. Showing curiosity;
- 5. Acquiring resources (including money);

The didactic approach of the My Story Map module looks at the competence of creativity and sense of initiative as a process of 'subversion', with overturning roles. The environment is the one of the flipped classroom, focused on a learner-centered approach, where in-class time is dedicated to exploring topics in greater depth and actively engaging the students in knowledge construction as they participate in and evaluate their learning in a way that is personally meaningful to them. In the learning experience it is not only the teacher-student dynamic that is flipped, but also the approach towards the didactic content and the production of the story-map, where students are asked to look at specific concepts and topics from their own perspective, showing curiosity and exploring different ways to re-elaborate and process their learning.

#### 9. PROBLEM SOLVING

- 1. Demonstrating awareness of situations, problems and responses;
- 2. Reflecting on experiences, feedback and data;
- 3. Analysing causes;
- 4. Taking a logical approach to finding solutions;
- 5. Involving others in finding solutions;

The competence area of problem solving goes deeper into the concept of looking at things from different perspectives. In order to produce their own digital story-maps on a Learning Unit, students necessarily need to go through this type of process and the module encourages them to reflect on their study experiences with the aim of explaining the different elements and connecting them in a logical way. The production of the story made can be made by involving different resources and more learners in the process. For this reason, one of the goals of the My Story Map module is to make students discover the extent to which the interaction with others and the acceptance of their points of view can be useful for them, thus transforming problem solving into both a personal and a social attitude. Promoting critical thinking means being open to evaluating and considering different points of view and being able to make one's own personal analysis on it.

# 10. WORKING WITH OTHERS

- 1. Developing relationships and relating well to others (including listening, sharing and empathising);
- 2. Giving and receiving feedback;
- 3. Respecting different opinions and perspectives;
- 4. Fostering and ensuring the participation, motivation and commitment of others;
- 5. Acting in cooperation with others to accomplish common tasks;

The competence to work with others requires specific adaptation skills, and is inherent in all other skills included in the didactic module of My Story Map. The whole experience of the My Story Map project is focused on the engagement of the students in a process of shared actions that converge into a specific educational product. The activity is particularly targeted at students at risk of dispersion, using cooperative learning through the use of digital story-maps in order to strengthen social bonds and interaction between participants, even if they have or have had very different experiences from each other. One of the main outcomes of the cooperative learning approach is to always be able to change and improve from the initial situation. Educating participants to this attitude of cooperation, giving and receiving feedbacks, and being in service of the group aims to discover that they can support each other in their learning and growth. In this supportive learning environment the possibility of becoming also a reference point for each other increases intensively, as it is the case of the creation of the digital story-map on a Learning Unit in which the participants are all engaged.

# 7. EVALUATION

# 7.1 Why evaluate?

Evaluating is crucial for a number of different reasons. Within the context of the My Story Map module the evaluation action is aimed mostly at:

- Learning The evaluation process provides the opportunity to understand, give value and draw conclusions from a learning experience. It gives access to new learning opportunities because during the evaluation process, the people involved learn not only to express how much their knowledge of a particular topic has improved, but also to reflect on the impact of the experience on their own lives, confront their opinion with the others', debate about different interpretations, meaning or interrelations that might raise during the process. When evaluation and learning take place at the same time, those who are involved have the opportunity to create, discern, imagine, analyse, contrast, elaborate answers, formulate questions, come up with doubts, search for other sources.
- Motivation The evaluation process should be aimed at encouraging evolution, improvement, change, all factors that ultimately foster people's motivation. To obtain this result, particular attention needs to be put in developing a method that can be perceived from the participants as constructive, rather than "selecting" or "excluding", as sometimes it happens to be, especially in formal education. The attitude of the pupils involved, as well as the atmosphere in which the evaluation takes place, also plays an important role in achieving the objective of motivating people through the evaluation process.
- Participation The moment of evaluation is an opportunity for the participants to feel involved, to give their personal contribution to make things better, or simply to promote and practice the importance of participation itself as a value.
- Change and improvement These two aspects are considered here not just at an "operational level" (change of methods, tools etc.) but also on a personal level. Evaluation can lead to changes in people's attitudes, values, way of thinking, provided that people are open to change their own way of doing things and of thinking. This openness that can be facilitated by creating a non-judgemental and constructive atmosphere.



#### 7.2 How to evaluate?

Evaluation is a complex and important action which can be a source of motivation but which can also potentially be one of the factors influencing students' disinterest or abandonment. For a vast majority of students at risk of dispersion, the process of learning associated to the official educational system is often intimately bound up with issues of power, control and authority, external evaluation, judgement, marks, possibly perceived as a very victimising process and often linked to rather negative feelings such as shame, sense of inadequacy, guilt and struggle.

Traditional assessment practices which focus exclusively on grades and certifications make it difficult for the young people to perceive the assessment as a fair and transparent process rather than an external imposition that should only be received in a passive way, so they generally do not actively seek out opportunities to assess themselves or be assessed.

There are of course some "operational objectives" or uses of evaluations. These objectives can be different according to the kind of learning experience that is being evaluated. For this reason, the fourth phase of the module is fully dedicated at addressing the presentation of the story-maps and the evaluation of the process from different points of view. Students should indeed be able to evaluate their own projects and tools and techniques are provided within the module to ensure that they acquire the knowledge, skills and competences to do that.

# 9

#### Evaluation tool for students

One evaluation questionnaire have been developed in the form of a self-assessment, specifically for the students taking part to the My Story Map module in order to evaluate the contents, impact, effectiveness, results of the experience etc.

Very often while being engaged in higher education students generally tend to focus more on the 'acquisition of' rather than 'participation in' learning, but ideally the idea of assessment is for learning as well as for measuring achievement of learning. Self-assessment, together with the group processing which takes place through cooperative learning, can be a tool that can contribute towards this perception shift about the fairness of assessment.

For most of the aspects a numeric scale has been used to make it easier to compare results from different languages and cultures.

# **Q** Evaluation tool for teachers

Teachers facilitating the module are also asked to carry out their own evaluation of the experience at the end of its implementation. Also in this case, the evaluation form has been designed for use across different countries so it uses a numeric scale to make it easier to compare results from different languages and cultures. There is also space for adding anything else the teachers might feel is important to share or highlight about their experience as My Story Map facilitators. The use of the same evaluation tool allows the comparison of results from different modules and across different countries and facilitate the possibility to identify strengths and weaknesses of the learning programme and possible way of improving it.

# Didactic diagnostic evaluation

Since the module is to be considered as an integrated part of the didactic programme, the evaluation strategy of the learning experience needs to include a part related to the assessment of teachers towards the students' learning. For this purpose, an evaluation rubric template is provided as well among the learning materials of phase 4. The evaluation of the applied use of digital story-maps in the didactics has some complexities, as one must first try to understand and analyse the level of understanding achieved by the students in relation to that given topic through answers that are elaborated rather than remembered. Such an innovative action can be evaluated at a diagnostic level considering the following indicators:

- · Evaluation of how a discipline has been addressed;
- Evaluation of the interest and motivation of the students;
- Evaluation of the students' responsibility in the learning process;
- · Evaluation of personal contributions;
- · Possible acquisition of higher levels of competence;
- · Capacity for interaction between peers;

In this way the evaluation is aimed at understanding and highlighting students' achievements rather than their shortcomings and therefore appears to be a particularly effective tool to motivate students at risk of Early School Leaving.



## PHASE 1

#### INTRODUCTION TO DIGITAL STORY-MAPPING

The first phase of the module is a preparatory one which is aimed at creating the conditions for establishing a clear learning environment for the students.

Some of the main specific objectives envisaged through this phase are:

- to establish a first contact between students, allowing them to break the ice and work on group building;
- to activate processes linked to digital storytelling and mapping in order to support students in starting to get familiar with those concepts;
- to provide students the opportunity to create their own personal account on the ESRI Story Maps platform, experiencing the process of signing up, logging in and producing a digital story-map for the first time;

Phase 1 has an overall duration of 3 hours.



#### THE STORY BEHIND MY LAST PICTURE

#### PHASE 1: INTRODUCTION TO DIGITAL STORY-MAPPING

#### **DURATION:**

15 minutes

#### **AIM**

A short storytelling activity that could be used as a group building exercise to encourage students to share short personal stories about themselves and start breaking the ice with within their working groups.

#### **DESCRIPTION STEP BY STEP**

- Ask students to open the last picture they took with their phones and think about the story behind it, asking themselves questions such as Where was it taken? Why did I take a picture like this? How did I feel? Was it something important?
- Invite them to use the very last images they have taken, even though it might seem boring or irrelevant (such as a picture of the notes they used to study for an exam or a phone number they wanted to remember) but, of course, don't force it if people don't want to and prefer to choose a different one;
- After thinking of the story participants share in pairs within their working groups, asking each other questions to discover more details connected to the story behind the picture.

#### **MATERIALS**

·Mobile devices

- 1.3 Listening effectively
- 1.4 Describing and explaining ideas
- 4.1 Trusting others and being trustworthy
- 10.1 Developing relationships and relating well to others (listening, sharing and empathising)

#### MAPPING OURSELVES: PERSONAL ARCHIPELAGO

#### PHASE 1: INTRODUCTION TO DIGITAL STORY-MAPPING

#### **DURATION:**

45 minutes

#### AIM

An artistic team building activity aimed at supporting students in developing trust and experimening the mechanism of giving feedback. It also starts a first reflection about looking at things from different points of view.

#### **DESCRIPTION STEP BY STEP**

- Invite students to imagine themselves as an archipelago, the sum of different elements, which here are represented by a set of different islands;
- Each island in the archipelago has a specific topic, such as, for example: my family, my hobbies, things I'm good at, things I dislike, etc.
- Ask students to draw/create their own personal archipelago using the materials available and writing on each island three things about themselves which are related to the main topic. Out of the three things though, two should be true and one should be false.
- When everybody's archipelago is ready, invite students to find a position for it in the room and then send everybody off onto the exploration of the other islands!
- While visiting someone else's archipelago, participants can leave a post-it at the location with their guesses about what they think could be the false facts about the owner of the archipelago.
- Close the process within the working groups, asking each person to share about which were the true/false elements of their archipelago.
- · Leave time for people to add any additional thought if they feel like in the plenary with the whole class.

#### **MATERIALS**

- Various types of paper (hard, soft, blank, coloured)
- Pens, pencils and /or thin markers
- · Markers, colour pencils
- Scissors, glue

- 4.1 Trusting others and being trustworthy
- 6.2 Understanding one's own strength and weaknesses
- 9.1 Demonstrating awareness of situations, problems and responses
- 8.2 Considering new perspectives
- 10.1 Developing relationships and relating well to others (listening, sharing and empathising)
- 10.2 Giving and receiving feedback

#### SIGN UP and LOG-IN TO ARC-GIS ONLINE

#### PHASE 1: INTRODUCTION TO DIGITAL STORY-MAPPING

#### **DURATION:**

10 minutes

#### **AIM**

A first and direction interaction of the participants with the ESRI Story Maps platform.

#### HOW TO ACCESS ESRI STORY MAPS

The homepage of Esri Story Maps platform (classic) can be found at the following address: <a href="https://storymaps-classic.arcgis.com">https://storymaps-classic.arcgis.com</a>

The homepage of the new platform instead is <a href="http://storymaps.arcgis.com">http://storymaps.arcgis.com</a>.





The platform can be accessed by anybody who already has an ArcGIS account and it makes it possible for users to sign up for free non-commercial public accounts or through Facebook or Google credentials. The public accounts offer a limited set of functionality that include the possibility to use, create and share maps with everyone publicly and for non-commercial use only.



#### **MATERIALS**

• A connected device (pc - laptop - tablet - smartphone) (at least 1 per participant)

#### ADDITIONAL COMMENTS / TIPS FOR IMPLEMENTATION

The introduction and contextualisation of the module could be done already by using the tool of the digital story-map. The map can be prepared before-hand by the teacher and it could provide to the students the main frame of the module, thus introducing the experience, the topic, the Esri Story Maps platform, and giving straight away a concrete example of both storytelling and digital story-mapping. This could also be a useful way for the teachers to experience themselves the work on the platform and get familiar with the system, tailoring the presentation on the specific profile of one's own working group.

#### MAPPING OURSELVES: PLACES THAT MATTER

#### PHASE 1: INTRODUCTION TO DIGITAL STORY-MAPPING

#### **DURATION:**

#### 180 minutes

#### AIM

A team building activity aimed at making the students familiar with the methodology of digital story-mapping and related tools and identifying the main steps to follow in the process of creation.

#### **DESCRIPTION STEP BY STEP**

- Ask participants to individually draw a simple map of the area/neighbourhood they live in, marking landmarks and locations that are important to them. The aim is to activate the visual memory and thinking in symbols, not creating a perfect map.
- Ask students to share within their working group about the locations they have chosen and see if they have any specific place or location in common.
- Invite the small groups to create a short digital story-map in order to present their own group to the rest of the class, using their favourite places as a starting point.
- Have the groups presenting their digital story-maps in plenary.
- Invite participants to discuss in their working groups and write down on a poster what worked and which challenges they encountered during the process in the process of building their story-map.

#### **MATERIALS**

- · Post-it
- · Pens, pencils and /or thin markers
- A3 paper sheets
- · Internet connection
- A connected device (tablet smartphone) (at least one per participant)
- A laptop (at least one per working group)

- 1.4 Describing and explaining ideas
- 1.5 Public speaking
- 2.2 Interacting and sharing through digital technologies
- 2.3 Using of common computer software
- 2.4 Browsing, searching and filtering data, information and digital content
- 3.1 Using digital technologies creatively
- 3.2 Producing written content for a range of audiences/recipients and media

- 3.3 Taking, editing and sharing digital photographs and video
- 3.4 Creating web pages and other web-based presentations
- 3.5 Having experience with copyright and licenses
- 4.1 Trusting others and being trustworthy
- 4.2 Recognising one's own obligations and responsibilities
- 6.1 Understanding one's own strength and weaknesses
- 6.3 Committing to learning and/or study and/or act
- 6.4 Reflecting on experiences to maximise learning
- 6.5 Seeking advice, information and support
- 7.1 Completing tasks on time and to the required standards
- 7.2 Keeping focused
- 7.3 Multi-tasking: making progress with several tasks and responsibilities at the same time
- 7.4 Working under pressure
- 7.5 Planning and prioritising tasks
- 8.2 Considering new perspectives
- 8.3 Making and implementing plans
- 8.4 Showing curiosity
- 8.5 Acquiring resources (including money)
- 9.1 Demonstrating awareness of situations, problems and responses
- 9.2 Reflecting on experiences, feedbacks and data
- 9.3 Analysing causes
- 9.4 Taking a logical approach in finding solutions
- 9.5 Involving others in finding solutions
- 10.1 Developing relationships and relating well to others (including listening, sharing and empathising)
- 10.2 Giving and receiving feedback
- 10.3 Respect different opinions and perspectives
- 10.4 Fostering and ensuring the participation, motivation and commitment of others
- 10.5 Acting in cooperation with others to accomplish common tasks

#### ADDITIONAL COMMENTS / TIPS FOR IMPLEMENTATION

Basic tutorials on how to create a digital story-map can be found in the learning materials of Phase 3 "Producing the digital story-map".

## PHASE 2

#### **DIDACTIC STORYTELLING**

This phase is aimed at having participants increasing gradually their self-awareness, mapping and connecting together different elements from the didactic programme, elaborating them and re-organizing them into a narrative flow.

Some of the main specific objectives envisaged through this phase are:

- to apply storytelling tools and inputs to the didactic programme;
- · to provide students alternative solutions on how to relate to a content;
- to approach from different perspectives elements of the didactic programme and start a process of contextualization and re-elaboration;

Phase 2 has a variable duration between 4 and 8 hours.



#### TERRA INGOOGLITA

#### PHASE 2: DIDACTIC STORYTELLING

#### **DURATION:**

#### 90 minutes

#### **AIM**

A storytelling activity which explores the role of space within a narrative, having students making connections between how much places can shape and influence someone's story.

#### **DESCRIPTION STEP BY STEP**

- Before the activity, search for random pieces of land on Google Earth, print them and cut out pieces of them, sticking them on a framed A4 paper. There should be one sheet of paper for each student.
- · Distribute the sheets among the students.
- Invite the students to fill in the empty spaces on the paper in between the pieces of land they have on their sheet, using pens, markers, colour or any other type of material.
- Once the map is made, ask them to write a short story which could take place in that land, imagining who could live there, how and where in the world would that be.
- Once everybody has finished, give to each student a picture which shows them how the real "empty space" looks like and where the piece of land they received are actually located.
- Ask students to display their creations on the wall as it was an exhibition and have them going around to look at each other's work.
- Open up a discussion on how was the process of imagining how a place is or looks like just by starting from a small portion of it and how much the idea of that place influenced the stories that they wrote. From that it can start a debriefing focusing on what a narrative is made of.
- · Close with a final round of feedback, reflections and thoughts from the students.

#### **MATERIALS**

- A4 blank paper with pieces of cut-out maps;
- Flipchart, markers;
- · Pen, pencils, erasers, sharpeners;
- Scissors, glue;
- Coloured pencils and coloured markers;
- Coloured paper;
- Images from newspapers and magazines;

#### LEARNING OBJECTIVES

- 3.2 Producing written content for a range of audiences/recipients and media
- 8.2 Considering new perspectives
- 9.2 Reflecting on experiences, feedback and data

#### ADDITIONAL COMMENTS / TIPS FOR IMPLEMENTATION

The debriefing phase of the activity could be done using/preparing a digital story-map. (Terra ingooglita is inspired by the concept of "terra incognita" or "terra ignota", a term used in cartography to indicate lands which haven't been mapped yet. The tool was presented by Paula Kaniewska and it features in the "Subjective Mapping – Booklet" produced during as a result of the international training course "Subjective Mapping" organised by the French NGO Nomadways, <a href="http://nomadways.eu/en/">http://nomadways.eu/en/</a>)

#### **COMICS and ORIGIN STORIES**

#### PHASE 2: DIDACTIC STORYTELLING

#### **DURATION:**

#### 120 minutes

#### AIM

An artistic activity which uses comics and drawing as a storytelling medium for students to learn about the main basic elements of story structure and of drawing a storyboard, looking more specifically at the concept of cause/effect.

#### **DESCRIPTION STEP BY STEP**

- Start the activity by having students brainstorm collectively in plenary about superheroes: which ones do they know? Which ones do they like the most? Which superpowers do they have? Collect the answers on a big flipchart paper.
- Starting from the superheroes names on the paper, choose two or three that the group likes the most. What is the background of those superheroes? how did they become superheroes? Where they born like this? Did something happen to them? Introduce the concept of "origin stories", which in comics is what is at the core of the transformation of superheroes, what made it possible for them to become what they are, and ask students to outline together the superheroes' origin stories through the narrative model of the Story Spine:
  - 1. Once upon a time there was...
  - 2. Every day, ...
  - 3. One day...
  - 4. Because of that, ...
  - 5. Because of that, ...
  - 6. Until finally ...
- Ask now students to think about some historical figures or characters that they have studied or encountered until that point in school who had a particular talent (scientists, artists, writers, politicians, etc.) and have them share it in pairs for a few minutes.
- Once they are done with the sharing, invite them to think about what is their origin story: how did these people become good at the thing they identified? How did they develop their talent? When did it happen? With who? Where? What happened?
- Give a short introduction about drawing and storyboard principles, underlining how simple and basic elements are really alright and are actually at the core of every drawing (lines, dots, basic geometrical shapes, etc.) and how the clarity of the story is the main focus (breaking the story in small sections, removing the unnecessary parts, etc.);
- Invite them to produce a visual storyboard in the style of comics which illustrates the main steps of their origin story and following the steps of the Story Spine model. Allow them to search for resources which could help them to get to know more about the story of the character they chose;
- Once students have finished their comics, display them on the wall as it was an exhibition and bring participant around in the room to see them as in a guided tour where every person is invited to give a short introduction about his/her work.
- · Close with a final round of feedback, reflections and thoughts from the students.

#### **MATERIALS**

- Flipchart and markers;
- Blank A3 sheets of paper (at least one for each participant);
- Pencils, erasers and sharpeners;
- Black thin markers;
- · Coloured pencils and markers;
- Internet connection
- · A connected device (tablet smartphone) (at least one per participant)

#### **LEARNING OBJECTIVES**

- 1.1 Understanding and expressing clearly one's own thoughts and emotions
- 4.4 Celebrating one's own efforts and accomplishments
- 6.4 Reflecting on experiences to maximise learning
- 9.1 Demonstrating awareness of situations, problems and responses
- 9.2 Reflecting on experiences, feedback and data
- 9.3 Analysing causes
- 10.2 Giving and receiving feedback

#### ADDITIONAL COMMENTS / TIPS FOR IMPLEMENTATION

A good resource to use to structure a short presentation about the basic elements of drawing is the publication "Graphic Express" (<a href="http://educationaltoolsportal.eu/en/tools-for-learning/introducing-graphic-ex-press">http://educationaltoolsportal.eu/en/tools-for-learning/introducing-graphic-ex-press</a>) which is available for free download.

It could be useful to have displayed and available as resources also different kind of comic books with different styles.

#### **#BRIAN THE ONION**

#### PHASE 2: DIDACTIC STORYTELLING

#### **DURATION:**

90 minutes (depending on the length of the debriefing)

#### AIM

A digital storytelling activity which combines the use of Instagram pictures and/or videos with hashtags. It may be used to open up discussions and increase awareness on how online pictures and video may have impact and leave traces, differences from reality etc. and how important it is to check for our sources when we retrieve information about people and facts.

#### **DESCRIPTION STEP BY STEP**

- Divide students in their assigned working groups.
- Be sure that every group has someone with a mobile device with the Instagram app installed onto, using a public profile or provide them with a pre-created one if they are on private profiles and (correctly!) do not want to open up their pictures to the world.
- Make every group choose 1 or 2 hashtag which you have previously written on different cards.
- The hashtag will define the topics of the scenes to be pictured: for instance #lunchtime, #partyall-night, #familytime, etc.
- Put all materials (onions, costume parts, etc.) on a table, and give around 15 to 20 minutes to the groups to think about the 1-2 scenes that they have to create according to the picked hashtags, create the settings, style up the onions' costumes, etc.
- Ask them to share pictures of the scenes on instagram using the hashtag #briantheonion plus the hashtag they picked
- Put on the beamer the website websta.me/search or instagram.com, login with your personal instagram account and search for #briantheonion.
- · Refresh the page every few seconds, and pictures from the different groups will start to appear!
- When all pictures have appeared, ask each group to write down 4-5 ideas about Brian The Onion character, way of acting, what he likes or dislikes, his personality etc.
- Share the results in plenary, writing the results on a flipchart. Is this the real Brian? Is it not? How we can tell?
- Open up and facilitate a discussion on how easily labels can be attached out of online pictures, generalisations could be done starting from a single piece of picture, etc.

#### **MATERIALS**

- Some onions (1 2 every group of participants)
- Markers, colored paper, tapes, scissors, glue and everything could be used to create a costume for the onions.
- Any kind of material which could turn the onion into a character: feathers, little eyes, small hats, etc.
- A few mobile devices with instagram app installed (1 for every group of participants)
- A PUBLIC working Instagram account associated with every app (you can either ask participants to put their profiles as public for a while, or provide them with some pre-created profiles. In this case you have to create them one by one on a mobile with instagram app on it. Use different emails ie briantheonion1, briantheonion2 etc for the different profiles)
- Internet connection
- · A device (pc laptop tablet smartphone) connected to a beamer / big screen or IWB
- Your own Instagram account (or one that you created for this activity) to enter the Instagram website
  www.instagram.comor to sign up on the search engine website websta.me/search to retrieve the
  pictures.

#### LEARNING OBJECTIVES

- 2.1 Managing digital identity
- 2.2 Interacting and sharing through digital technologies
- 3.1 Using digital technologies creatively
- 3.3 Taking, editing and sharing digital photographs and video
- 10.5 Acting in cooperation with others to accomplish common tasks

#### ADDITIONAL COMMENTS / TIPS FOR IMPLEMENTATION

Always use the hashtag #briantheonion when using this tool, also in order to see the picture of all the previous versions of Brian and add to the collection

Obviously the onion can be anything else instead and it is possible to narrow the choice of possible moments to depict in the pictures, using more specific hashtags. This could lead also to address more specific topics.

As already said, since the tool works only with \*public\* Instagram account, and you may not want your students to open up their profiles, you could provide a few pre-registered accounts to the participants to avoid privacy issues.

(The tool was developed By Raphaela Blassnig together with Michele Di Paola and Joanna Wronska, for the training course Dig-It Up! A more extensive description of it can be found on the Educational Tools Portal: <a href="http://educationaltoolsportal.eu/en/tools/briantheonion">http://educationaltoolsportal.eu/en/tools/briantheonion</a>)

#### STORIES AND PERSPECTIVES

#### PHASE 2: DIDACTIC STORYTELLING

#### **DURATION:**

#### 120 minutes

#### AIM

An activity of digital storytelling focused on the concept of perspective, looking at how the same story can change if we look at it from a different perspective or through the eyes of another character. It wants to highlight how a story is made of many elements and there is no such thing as a single narrative.

#### **DESCRIPTION STEP BY STEP**

- Start the activity by having students looking at/reading collectively a specific part of the didactic programme revolving around an historical fact or the deeds of a specific person (alternatively, the activity can be done using as a background story a well-known traditional fairy-tale).
- Divide the participants into their assigned working groups and have them pick out randomly a paper with the name of another character from the same fact.
- Ask to the groups to imagine how the original story could be seen through the eyes of their character and leave them some time to produce, in the form they prefer (pictures, text, voice, short videos), an alternative version of the same story.
- Have the groups presenting their version of the story in plenary.
- Have a debriefing with the whole group about the overall process, asking students to share their
  observations and their reflections about the story. Does it look like the same story they knew before? Which elements are new? Did something happen that changed their vision and understanding of the story since the first time they heard about it? Is there something that they learnt? Can
  they relate to the situation of the main character?

#### **MATERIALS**

- Internet connection
- · A main device (pc laptop tablet smartphone) connected to a beamer / big screen or IWB
- Mobile devices (at least one per group)
- A4 blank and coloured paper
- Pen, pencils, coloured markers

- 1.2 Being empathetic
- 1.3 Listening effectively
- 3.1 Using digital technologies creatively
- 3.2 Producing written content for a range of audiences/recipients and media
- 3.3 Taking, editing and sharing digital photographs and video
- 7.3 Multi-tasking: making progress with several tasks and responsibilities at the same time
- 7.5 Planning and prioritising tasks
- 8.2 Considering new perspectives
- 9.2 Reflecting on experiences, feedback and data
- 10.3 Respecting different opinions and perspectives
- 10.5 Acting in cooperation with others to accomplish common tasks

#### HERO'S JOURNEY

#### PHASE 2: DIDACTIC STORYTELLING

#### **DURATION:**

60 minutes

#### AIM

An activity which aims to apply the main elements of the Hero's Journey model as a main resource for the students in terms of story structure in order to build up and deepen their storytelling and communication skills.

#### **DESCRIPTION STEP BY STEP**

- · Divide participants into their assigned working groups.
- Using a simplified version of the Hero's Journey model in 7 steps, guide the participants through a process of exploring how stories are structured:
- 1. Ordinary world
- 2. The call for adventure
- 3. The Mentor
- 4. Crossing the threshold
- 5. The Road of trials (allies and enemies)
- 6. The Dark Cave
- 7. The Return
- Select already beforehand some well-known topic, break them into main sections (each one on a piece of piece of paper) and assign a topic to each group having the pieces all mixed up.
- Ask students to re-construct in their groups the flow of their narrative topic and identify the main steps of the Hero's Journey model within it.
- Present now to participants the full Hero's Journey model with its 12 steps using some videos and summarise the main element of a solid story structure. Emphasise how, even though the elements can be the same, the stories are always very different and unique and that the model is only a guideline.
- Close the activity with a group discussion, asking participants if they feel that they can see the Hero's Journey model in their life as well.

#### **MATERIALS**

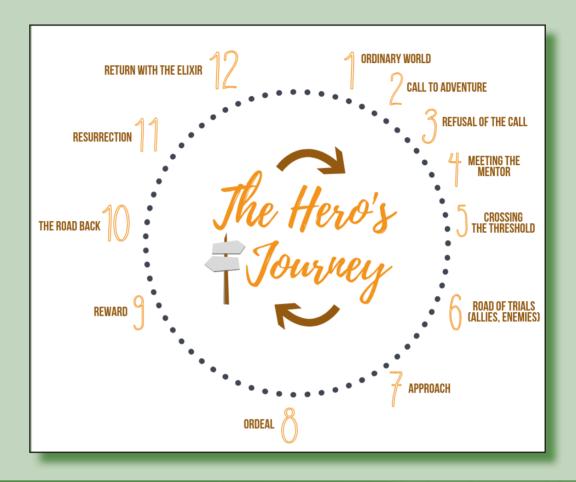
- Internet connection
- · A main device (pc laptop tablet smartphone) connected to a beamer / big screen or IWB
- · Pens and pencils
- A4 blank sheets of paper
- Flipchart and markers

- 8.2 Considering new perspectives
- 8.4 Showing curiosity
- 9.3 Analysing causes
- 9.5 Involving others in finding solutions
- 10.4 Fostering and ensuring the participation, motivation and commitment of others
- 10.5 Acting in cooperation with others to accomplish common tasks

#### **MATERIALS**

Useful videos to show for the Hero's Journey are:

- -What Makes a Hero by Matthew Wrinkler <a href="https://www.youtube.com/watch?v=Hhk4N9A0oCA">https://www.youtube.com/watch?v=Hhk4N9A0oCA</a>
- -Hero's Journey by Iskander Krayenbosch <a href="https://vimeo.com/140767141">https://vimeo.com/140767141</a>



#### STORIES AND COPYRIGHT

#### PHASE 2: DIDACTIC STORYTELLING

#### **DURATION:**

#### 60 minutes

#### **AIM**

An activity which has the purpose to introduce to participants the notion of intellectual property, licencing, and ethics in preparation to the process of creating their own digital story-map.

#### **DESCRIPTION STEP BY STEP**

- Prepare beforehand a set of random words (love, nature, friendship, basketball, etc.) writing each one of them on a single little piece of paper.
- Divide students in their working group. Explain to the groups that they will have 10 minutes of time to search for media online (more specifically: photo, video, music, quotes) which have to be related to the words that they are going to pick. Every group works on its own, the final goal is to collect a full set of media (so, one photo, one video, one musical piece and one quote) for as many words as possible in the given time.
- Once the time is over, check the results of the groups and report them in the scoreboard to see who found the highest amount of media online. Ask the groups to share in plenary some of the media they found, sharing also where they found them.
- Open and start to facilitate a discussion on copyright: can we download these media with no limits? Are there some consequences with doing so? Can we download for free?
- Emphasize how everything that is found on the web (videos, photos, drawings, quotes, stories, sounds etc.) is originally someone else's property. A common myth about the Internet is that anything posted online can be copied or downloaded, in truth, anything which appears on the Internet has the same potential of being protected by copyright as anything that can be found in the library or in a bookstore.
- · Explore with participants which websites offer free downloads, such as:
- Pictures: Pixabay, Pexels, Unsplash, Istockphoto, Stocksnap, ...
- Videos: Pexels videos, Pixabay, Makerbook, Videvo, Videezy, ...
- Music: Sound cloud, Jamendo music, Noisetrade, Free music archive, Pure volume, Internet archive, Sound click, artist direct, ...

#### **MATERIALS**

- · Internet connection
- · A main device (pc laptop tablet smartphone) connected to a beamer / big screen or IWB
- Mobile devices (at least one per person)

- 2.3 Using of common computer software
- 2.4 Browsing, searching and filtering data, information and digital content
- 3.5 Having experience with copyright and licenses
- 5.1 Dealing with ambiguity and uncertainty
- 7.3 Multi-tasking: making progress with several tasks and responsibilities at the same time
- 7.4 Working under pressure
- 10.5 Acting in cooperation with others to accomplish common tasks

## PHASE 3

#### BUILDING THE DIGITAL STORY-MAP

The third phase is aimed the concrete production of the digital story-map. The group, supported by the teacher and thanks to the tools acquired in the previous phases of the module, identify the part of didactic programme which will be the subject of their story-map.

The groups elaborate in the class the skeleton of their story-map, identifying the fundamental steps, the connections between the different points and the most effective and relevant multimedia contents to associate and incorporate, dividing roles and responsibilities and planning the production of those contents - whether in the form of photo, video or audio. This is followed by the organization and research of material and actual production of the story-map, which takes place outside the school context in the autonomous and independent working framework of the group.

Phase 3 has a variable duration between 5 and 10 hours.



#### DIGITAL STORY-MAP CREATION WITH STORY-MAP TOUR SM

#### PHASE 3: PRODUCING THE DIGITAL STORY-MAP

#### **DURATION:**

60 minutes

#### PREPARING THE STORY-MAP MATERIALS

The first thing to do in order to make a Story Map Tour SM is to organise and collect all the media which will be featuring in the map:

- **images:** Google+ and Flickr are the two possible storage options for the integration of images inside the story-map. The template automatically reads in geotag information from the images to locate them on the map, and uses any title and caption text stored with the images. If the uploaded images don't have location information their map location can be specified directly the template. It is possible to use images of any size and shape in a Story-map Tour, but landscape orientation is recommended instead of portrait orientation;
- **videos:** the template offers the possibility to integrate videos in the story-map either by accessing directly videos stored in a You Tube account, or by specifying the URLs to individual videos in You-Tube, Vimeo, etc.
- audio: it is possible to incorporate audio in the story-map only through a video. A very powerful way to share a story and make more personal the experience of reading, is the one of having the author reading parts of the story script. Participants can record audio related to specific sessions (or all) of the story and upload it in a video format, also keeping a still image as a background and not necessarily having to shoot a video for it. In this case the audio should be stored as well using the same principles applied for the videos.

Every multimedia content in the tour narrative is geo-located, therefore it is recommended to organise the sequence of images and videos in a sequence, making sure to have a geographical location linked to each item of the list.

#### CREATING A DIGITAL STORY-MAP

Once that the process of setting up the account is done and all the media have been collected, the next step is to log-in on the ESRI Story Maps platform. After that, it is time to access the "My Stories" section from the top bar menu and click on "Create my first story":



Select the option Story Map Tour SM among all the application templates:



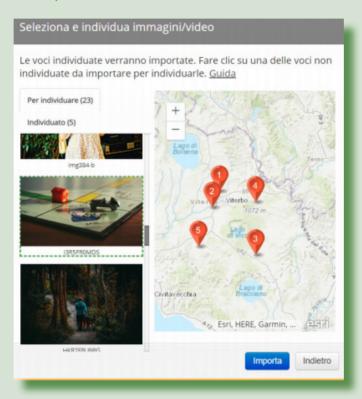
In order for the process to start, the location of the selected media content of the story-map (images and/or videos) is needed, choosing among the available options.



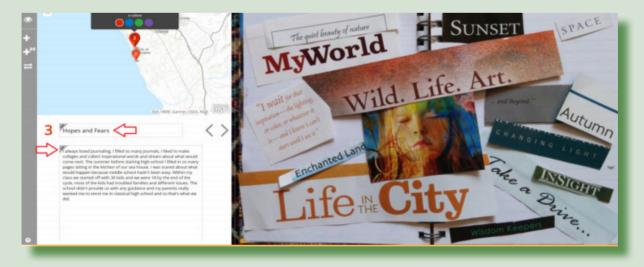
Depending on the choice made in the previous step, follow the specific instructions. For example, if Flickr has been the selected option for storing the images, in order to proceed the platform will ask for a Flickr username and the set of images selected either by choosing an album or tag.



If the selected media are stored on Flickr, Google+ or YouTube, now it is time to associate the single images/videos to their geographic location. Geotagged media will be automatically placed on the map, those who are not can be positioned manually on the map. It is enough to click on the image or video in order to select it, and then to click on the associated position on the map to place the media. Changes can be made later by dragging and dropping the markers on the map. Once all the media have been selected, click Import.



Now it is time to write down you to the caption for each point and make additional changes:



There is the possibility to choose a different base map for the background through the control located in the top right corner of the map:

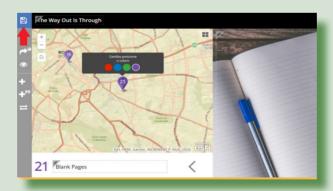


If the points need to be re-organised it is possible to do so by clicking on the Organize button on the left side of the builder. Using the same button it is also possible to set up the first point of the tour as the cover page for the story-map in case of the Side Panel layout. In that case, the point will no longer be shown on the map. The cover can be seen only through the View Story button, which shows how the story will look like to the readers.



The Story Map Tour SM template allows the authors to choose between three different layouts that can be customized through the Settings button on the left side of the builder.

Once you have chosen your layout, looking at what kind of content is your story-map including, you can go on the top of the builder where there is the Save button to save all your changes:



Once all the steps have been completed, the story-map is ready to be shared! Click on the Share button on the left bar of the builder and copy the shortened URL that is shown in the dialog so you can paste it into email, social media, as a link in a website or blog, or choose the option to have it directly embedded.

The digital story-map is now fully operational and can be viewed by the readers!

ADDITIONAL COMMENTS / TIPS FOR IMPLEMENTATION

Basic tutorials on how to create a digital story-map can be found in the learning materials of Phase 3 "Producing the digital story-map".

#### **MATERIALS**

- · Internet connection
- · A laptop (at least one per participant) Mobile devices (at least one per person)

- 1.4 Describing and explaining ideas
- 1.5 Public speaking
- 2.2 Interacting and sharing through digital technologies
- 2.3 Using of common computer software
- 2.4 Browsing, searching and filtering data, information and digital content
- 3.1 Using digital technologies creatively
- 3.2 Producing written content for a range of audiences/recipients and media
- 3.3 Taking, editing and sharing digital photographs and video
- 3.4 Creating web pages and other web-based presentations
- 3.5 Having experience with copyright and licenses
- 4.1 Trusting others and being trustworthy
- 4.2 Recognising one's own obligations and responsibilities
- 6.1 Understanding one's own strength and weaknesses
- 6.3 Committing to learning and/or study and/or act
- 6.4 Reflecting on experiences to maximise learning
- 6.5 Seeking advice, information and support
- 7.1 Completing tasks on time and to the required standards
- 7.2 Keeping focused
- 7.3 Multi-tasking: making progress with several tasks and responsibilities at the same time
- 7.4 Working under pressure
- 7.5 Planning and prioritising tasks
- 8.2 Considering new perspectives
- 8.3 Making and implementing plans
- 8.4 Showing curiosity
- 8.5 Acquiring resources (including money)
- 9.1 Demonstrating awareness of situations, problems and responses
- 9.2 Reflecting on experiences, feedbacks and data
- 9.3 Analysing causes
- 9.4 Taking a logical approach in finding solutions
- 9.5 Involving others in finding solutions
- 10.1 Developing relationships and relating well to others (including listening, sharing and empathising)
- 10.2 Giving and receiving feedbacks
- 10.3 Respect different opinions and perspectives
- 10.4 Fostering and ensuring the participation, motivation and commitment of others
- 10.5 Acting in cooperation with others to accomplish common tasks

### DIGITAL STORY-MAP CREATION (NEW STORY MAPS PLATFORM)

#### PHASE 3: BUILDING THE DIGITAL STORY-MAP

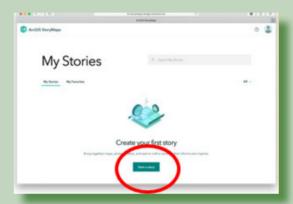
#### PREPARING THE STORY MAP MATERIALS

The first thing to do in order to make a story-map is to organise and collect all the media which will be featuring in the map (images, videos, audio).

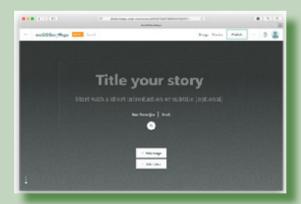
#### CREATING A DIGITAL STORY MAP

The next step is to log in to the Esri Story Maps platform. Go to: <a href="https://storymaps.arcgis.com/">https://storymaps.arcgis.com/</a>
Click on "Sign In", Log in with Facebook or Google or with your own (organization) account. Next click on "Create story".

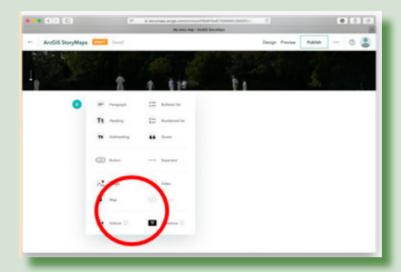




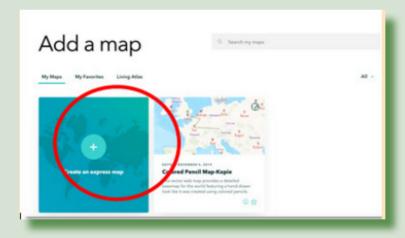
The first "page" of your story is presented. Adjust the title, possibly subtitle. Add a photo or video for the home screen.

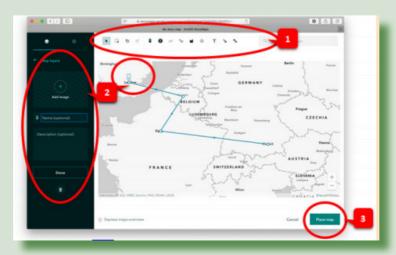


Click on • below the home screen (appears when you scroll down). A window appears with possible additions. Two options are ideal: "Map" and "Sidecar".



"Map" will show maps that you have already created with ArcGIS Online (within your account). If you have not yet created a map: click on "Create an express map". With this you can easily display your movements and connect them with arrows.





At the top (1) you choose to draw an arrow or to add a point on the map. If you have added a point you can add a photo with title and short description at that point in the side window (2). When all places have been added, click on "Place map" (3).

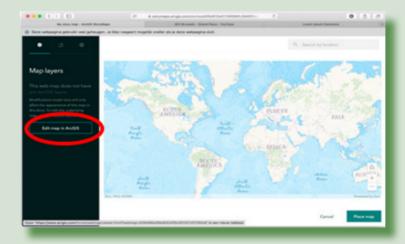


The map has been added. You can determine how large it should be displayed via the buttons at the top.

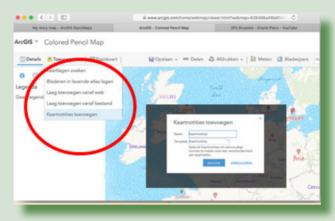
Scroll the map up to add another section below . You can also always do this between two already existing sections. You can also add a map in a different way. Choose in "Add a map" for "Living Atlas". There are maps that you can use. Choose e.g. the 'Colored Pencil Map'



To add data to this card, click on "Edit in ArcGIS"



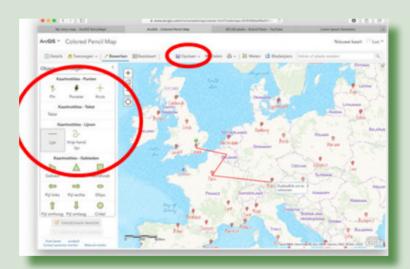
The map now opens in ArcGIS (note: new tab) Click on "Add"> "Add map notes."



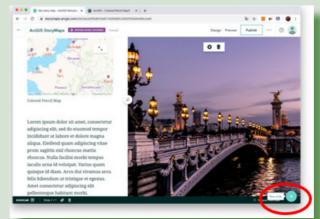
Click on "Create" (the rest does not need to be modified)

Now you can add points and lines and planes to the map.

When you are done, click on "Save" and give the map a name.



Note: you must go back to the button Insert and choose "Map", you will find the map in the list. With Sidecar you create a layout with text in the left-hand column (possibly including video, photo and map), while in the large window on the right you can display photos, video or map in large format.



When you have finished the story, click on the 'Publish' button at the top right, if you are part of an organization you can share it with members of the group / organization, or make it visible to everyone. If you use a public (free) account you do not have this choice.

If an item has not been shared yet (eg the card you made in ArcGIS) you will be asked to do that. Then certainly click on "Yes"

The digital story map is now fully operational and can be viewed by readers!



#### **MATERIALS**

- Internet connection
- · A laptop (at least one per participant) Mobile devices (at least one per person)

- 1.4 Describing and explaining ideas
- 1.5 Public speaking
- 2.2 Interacting and sharing through digital technologies
- 2.3 Using of common computer software
- 2.4 Browsing, searching and filtering data, information and digital content
- 3.1 Using digital technologies creatively
- 3.2 Producing written content for a range of audiences/recipients and media
- 3.3 Taking, editing and sharing digital photographs and video
- 3.4 Creating web pages and other web-based presentations
- 3.5 Having experience with copyright and licenses
- 4.1 Trusting others and being trustworthy
- 4.2 Recognising one's own obligations and responsibilities
- 6.1 Understanding one's own strength and weaknesses
- 6.3 Committing to learning and/or study and/or act
- 6.4 Reflecting on experiences to maximise learning
- 6.5 Seeking advice, information and support
- 7.1 Completing tasks on time and to the required standards
- 7.2 Keeping focused
- 7.3 Multi-tasking: making progress with several tasks and responsibilities at the same time
- 7.4 Working under pressure
- 7.5 Planning and prioritising tasks
- 8.2 Considering new perspectives
- 8.3 Making and implementing plans
- 8.4 Showing curiosity
- 8.5 Acquiring resources (including money)
- 9.1 Demonstrating awareness of situations, problems and responses
- 9.2 Reflecting on experiences, feedbacks and data
- 9.3 Analysing causes
- 9.4 Taking a logical approach in finding solutions
- 9.5 Involving others in finding solutions
- 10.1 Developing relationships and relating well to others (including listening, sharing and empathising)
- 10.2 Giving and receiving feedbacks
- 10.3 Respect different opinions and perspectives
- 10.4 Fostering and ensuring the participation, motivation and commitment of others
- 10.5 Acting in cooperation with others to accomplish common tasks

## PHASE 4

#### PRESENTATION AND EVALUATION

This phase is dedicated to the presentation of the individual productions, during which the working groups are invited to present to the rest of the class their results and story-maps.

This phase is concluding the experience of the module and therefore should focus on closing all the processes that have been opened during the previous phases. For this reason the presentation is then followed by the evaluation of the experience as a process, which takes place both through the teacher's evaluation and through the self-assessment of the students in order to be able to share and reflect on what competences have been developed during the module

Phase 4 has an overall duration of 3 hours.



# STUDENTS' EVALUATION QUESTIONNAIRE: MY STORY MAP MODULE

Name		Surnam	ne			
Age		Class				
1. GENERAL OVERVIE  (For every item tick the scoring	box that most closely rep	presents how you				
uating. You can briefly comment	You found yourself in a	n environment	Did the	context of the activity allow yo		
of the module has been:	where relationsh	ips were:	to nave s	spaces of autonomy and perso initiative?	na	
1. non-existent	1. polemical and c	onflictual	1. never			
2. episodic	2. tensed		2. somet	imes		
3. ongoing and not stimulating	3. not very stimula	ulating 3. often				
4. ongoing and stimulating	4. positive and sti	mulating	4. alway	s		
During the experience you have carried out:	Did the activities of seem in line with the programm	he school's		owledge and skills you possess pared to your experience, are:	5,	
complex non guided tasks	1. never		1. not re	levant		
2. complex guided tasks	2. sometimes		2. suffici	ent		
3. simple non guided tasks	3. often		3. adequ	uate		
4. simple guided tasks	4. always		4. highe	r		
During the experience you have	Did the activities	carried out		owledge and skills you possess	5,	
carried out:	seem in line with t programm		com	pared to your experience, are:		
complex non guided tasks	1. never		1. not re	levant		
2. complex guided tasks	2. sometimes		2. suffici	ent		
3. simple non guided tasks	3. often		3. adequ	ate		
4. simple guided tasks	4. always	X D	4. highe			
Comments						
				AL / / s		

### 2. LEARNING – how do you evaluate your:

Ability to describe and explain ideas	1	2	3	4	Ability to speak in public	1	2	3	4
BEFORE the module					BEFORE the module			77	
AFTER the module					AFTER the module				
Ability to browsing, searching and filtering data, information and digital content	1	2	3	4	Ability to use digital technologies creatively	1	2	3	4
BEFORE the module					BEFORE the module			M	7
AFTER the module					AFTER the module				
						V			
Ability of being responsible and trustworthy	1	2	3	4	Ability to adapt to new learning environments	1	2	3	4
BEFORE the module					BEFORE the module	V			
AFTER the module					AFTER the module				
									7
Ability to deal with ambiguity and challenges	1	2	3	4	Ability to acquire resources and seek advice, information and support	1	2	3	4
BEFORE the module					BEFORE the module	7,			7
AFTER the module					AFTER the module				
	•								
Ability to complete tasks on time and to the required standards	1	2	3	4	Ability to keep focused and work under pressure	1	2	3	4
BEFORE the module					BEFORE the module	4			
AFTER the module					AFTER the module				

115						A1 212		
ility to plan and prioritize tasks effectively	1	2	3	4		Ability to consider new perspectives and be creative	1	2
BEFORE the module						BEFORE the module		
AFTER the module						AFTER the module		
					٠			
ility to reflect on experiences, feedback and data	1	2	3	4		Ability to analyse causes and find logical solutions	1	2
BEFORE the module						BEFORE the module		
BEFORE the module  AFTER the module				A		BEFORE the module  AFTER the module		
	1	2	3	4		X	1	2
AFTER the module  Ability to respect different	1	2	3	4		AFTER the module  Ability to work in team with others to accomplish	1	2

Thank you for your cooperation!

## TEACHERS EVALUATION QUESTIONNAIRE: MY STORY MAP MODULE

Name	Surname	
Age	Class	
Profession		

#### 1. LEARNING MODULE IMPLEMENTATION DATA

	1.1 The work	that has been	carried out refers to:	1.2 Th
--	--------------	---------------	------------------------	--------

EDUCATIONAL PROFESSIONAL	
AREA	
DIDACTIC EDUCATIONAL AREA	

1.2 The implementation of the	learning	module
took place:		

WITHIN CURRICULAR HOURS	
WITHIN EXTRA CURRICULAR	
HOURS	

1.3 Indicate the starting and ending date of the module activities:

STARTING DATE	ENDING DATE	

1.4 Indicate the classes involved and, for each one of them, the total number of the students enrolled in that class and the number of the students that have been engaged in the module experience:

CLASS			
ENROLLED STUDENTS			
ENGAGED STUDENTS			

1.5 Indicate the total number of hours of activity foreseen by the module and the total number of hours which have

actually implemented for each working phase:

	PHASE 1:	PHASE 2:	PHASE 3:	PHASE 4:
	INTRODUCTION TO	DIDACTIC	PRODUCING	PRESENTATION AND
	DIGITAL	STORYTELLING	THE DIGITAL	EVALUATION
	STORY-MAPPING		STORY-MAPS	
number of hours				
FORESEEN				
number of hours				
IMPLEMENTED				

### 2. GENERAL OVERVIEW - the learning module provided/had:

(For every item tick the scoring box that most closely represents how you feel about the aspects you are eva uating. You can briefly comment on each item about your reasons for giving this score, particularly if your ratings are 2 or 1)

Narrow contents 1	2	3	4	Diversified contents	Poor balance between theory and practice	1	2	3	4	Good balance between theory and practice
Narrow range of 1 activities	2	3	4	Diversified range of activities	Incomplete materials	1	2	3	4	Exhaustive materials
Dissatisfactory 1 interaction between students and	2	3	4	Satisfying interaction between students and teachers	Too condensed schedule	1	2	3	4	Well-spaced schedule

#### Comments

### 3. CONTENT: how do you evaluate the following aspects:

(for every item tick the scoring box that most closely represents how you feel about the aspects you are evaluating. You can briefly comment on each item about your reasons for giving this score, particularly if your ratings are 2 or 1)

Preventing ESL though digital story-mapping	1 (-)	2	3	4 (+)	The depth and accuracy of the support content	1 (-)	2	3	4 (+)
The module offers a realistic approach to integrate digital story-mapping within the didactic programme	1 (-)	2	3	4 (+)	The module provides material to suit different learning styles	1 (-)	2	3	4 (+)

#### Comments

# 4. MOTIVATION- how much to you think the following factors have influenced students' motivation to participate and engage in the ac-

(for every item tick the scoring box that most closely represents how you feel about the aspects you are evaluating. You can briefly comment on each item about your reasons for giving this score, particularly if your ratings are 2 or 1)

Receiving support in regards of the study process	1 (-)	2	3	4 (+)	The depth and accuracy of the support content	1 (-)	2	3	4 (+)
Having fun	1 (-)	2	3	4 (+)	Compulsory schooling	1 (-)	2	3	4 (+)
Desire to acquire new knowledge	1 (-)	2	3	4 (+)	Getting to know one's own classmates better	1 (-)	2	3	4 (+)
Establishing connections with supporting adult figures	1 (-)	2	3	4 (+)	Desire to improve one's own school performance	1 (-)	2	3	4 (+)
Comments						4	7		
								Y	

# 5. CHALLENGES - how much to you think the following factors have influenced students' lack of motivation to participate and engage in

(for every item tick the scoring box that most closely represents how you feel about the aspects you are evaluating. You can briefly comment on each item about your reasons for giving this score, particularly if your ratings are 2 or 1)

General disinterest and demotivation	1 (-)	2	3	4 (+)	Tendency to get easily bored and/ or tired	1 (-)	2	3	4 (+)
Difficult relationship with the teacher(s)/tutor(s) leading the module	1 (-)	2	3	4 (+)	Lack of support from the family	1 (-)	2	3	4 (+)
Having different interests	1 (-)	2	3	4 (+)	Desire not to take away time from the study process	1 (-)	2	3	4 (+)
High level of difficulty in the contents addressed	1 (-)	2	3	4 (+)	Poor assortment of working groups	1 (-)	2	3	4 (+)

What have been the main challenges you faced during the implementation of the module? Please, describe.

# 6. IMPACT- what do you think is the impact of learning module on the students? Consider the following aspects:

Providing to students' an alternative study method model	1	2	3	4 Changing students' attitude towards their behaviour in class (+)	Changing students' attitude towards		1 2		4
	(-)				(-)			(+)	
Improving students' relational and communication skills	1 (-)	2	3	4 (+)	Fostering students' ability to work in a team	1 (-)	2	3	4 (+)
Acquiring new manual and/or operational skills	1	2	3	4	Fostering the use of ICT	1	2	3	4
operational skins	(-)			(+)		(-)			(+)

Do you feel that students will be able to use some of the competences developed during the module in their educational pathway? What were the most significant learning outcomes after the implementation of the module, from your point of view?

Thank you for your cooperation!

#### SUMMATIVE EVALUATION TEMPLATE MY STORY MAP MODULE

	EXCELLENT (9-10)	GOOD (7-8)	SUFFICIENT (5-6)	INSUFFICIENT (2-4)
Selection of the topic <sup>1</sup>	The topic is coherent and interdisciplinary	The topic is coherent and propaedeutic to other Learning Units	The topic is coherent with the didactic program	The topic isn't part of the didactic program
Research <sup>2</sup>	The group fully demonstrates its ability to research and select information related to the topic	The research and selection of information is good and consistent with the objective	The research for and selection of information is barely sufficient and not fully consistent with the objective	The research and selection of information is not consistent with the objective
Consistency 3	The work is original and the result of a thorough investigation	The work is partially original and uses research already carried out	The work is a partial re-elaboration of already covered topics	The work completely lacks an experimental approach
Tools used <sup>4</sup>	The work has coherence between images and contents and a good balance between the different components	The work is consistent with what was used but with a partial balance between the different components	The work is consistent but not balanced in the use of images, videos and content	The work does not provide for sufficient use of images and videos, and there is a lack of coherent sequencing
Outcome 5 production	The group worked in a cooperative way using correctly the application for the construction of a story-map that is engaging and original	The group worked cooperatively using the story-map application correctly and the product is interesting.	The group has well used the story-map application but the work is not always balanced	The group did not use the story-map application correctly
Diffusion <sup>6</sup>	Presentation is significant, correct and engaging. The work is correctly published on the ARCGIS platform	The work is presented in a logical sequence and comprehensible to the public. The work is correctly published on the ARCGIS platform	The work is presented in a sufficiently logical way and sometimes lacks sequentiality. The work is correctly published on the ARCGIS platform.	The work is presented in an improvised way without s quencing. The work is not published on the ARCGIS platform.

<sup>1-</sup>The selected topic must be related to a learning unit foreseen by the didactic programme;

<sup>2-</sup>Reliability, variety and coherence of the materials found;

<sup>3-</sup>The approach towards the selected topic should preferably be of an experimental one: investigation, research, statistics, etc.;

<sup>4-</sup>Audio, video, photo, etc.;

<sup>5-</sup>Cooperative work, production of a transferable and original work which could be used as a tool for reflection and discussion by the rest of the class;

<sup>6-</sup> Presentation, distribution on educational and/or social platforms.

TITLE OF THE STORY-MAP:		
SURNAME	NAME	CLASS
The overall assessment is calculated fro	om the average score of the 6 indicators	
OVERALL ASSESSMENT:/10		
Place and date,		
		Signature

### ANNEX I: RESOURCES – LEARNING UNIT TEMPLATE

DENOMINATION		
TASK / FINAL PRODUCT		
TARGET SKILLS		
S	KILLS	KNOWLEDGE
DESTINATION (classes and number of students)		
TIMING OF IMPLEMENTATION		
SUBJECTS INVOLVED		
IMPLEMENTATION STEPS		
METHODOLOGY		
HUMAN RESOURCES (internal/external)		
TOOLS		
EVALUATION		A A A A A A A A A A A A A A A A A A A

# ANNEX II: RESOURCES – LEARNING UNIT TEMPLATE

DENOMINATION	Scientist: MARIE CURIE		
TASK/FINAL PRODUCT	The experience will lead students to create digital story-map through the use of a digital platform.		
TARGET SKILLS	Communicate meaningfully: 1.1, 1.2, 1.3, 1.4, 1.5 Digital communication: 2.1, 2.2, 2.3, 2.4, 2.5 Digital content creation: 3.1, 3.2, 3.4, 3.5 (3.3 optional) Personal awareness and responsibility: 4.1, 4.2, 4.3 Flexibility and adaptability: 5.1, 5.2, 5.3, 5.4 Learning to learn: 6.3, 6.5 (6.4 optional) Organize effectively: 7.1, 7.2, 7.5 (7.3, 7.4 optional) Problem solving: 9.1, 9.2 Working with others: 10.1, 10.2, 10.3, 10.4, 10.5		
	SKILLS	KNOWLEDGE	
<ul> <li>Using the written language to produce texts with communicative effectiveness, taking into account the purpose and topic.</li> <li>Obtaining from different sources (written, internet) useful information</li> <li>Participate in group activities by comparing with others, evaluating the various solutions proposed, assuming and completing roles and tasks; lend help to comrades in difficulty.</li> <li>Planning actions in the personal and work environment, justifying the choices and evaluating the results.</li> <li>Be creating in scientific subjects</li> </ul>		<ul> <li>Knowing the basic principle of radiation</li> <li>Knowing the danger of radiation and benefits</li> <li>Knowing the life of Marie Curie</li> <li>Knowing the methodologies and tools of information research: bibliographies, search engines, scientific magazines,</li> <li>Knowing the meaning of group and community;</li> <li>Knowing the general elements of verbal and non-verbal interpersonal communication</li> <li>Knowing about storytelling</li> <li>Knowing the digital tools of the storytelling map</li> </ul>	
DESTINATION (classes and number of students)	Group class		
TIMING OF IMPLEMENTATION	16 hours		
SUBJECTS INVOLVED	Physics, Biology, Chemistry, Geography, Language, ICT		
IMPLEMENTATION STEPS	<ul> <li>Classroom training with the project tutor and individual teachers on the use of the ESRI Story Maps platform (2 hours)</li> <li>Presentation by the teachers of the parts of didactic programme using story-telling inputs (3 hours)</li> <li>Material retrieval and text processing (5 hours)</li> <li>Elaboration and production of the digital story-map (4 hours)</li> <li>Presentation of the work (1 hour)</li> <li>Evaluation and feedback (1 hour)</li> </ul>		
METHODOLOGY	Frontal lessons and coopera tory activities, Internet resea	tive learning, group work, individual work, labora- arch.	

HUMAN RESOURCES	<ul> <li>Internal resources: class teachers, project tutor;</li> <li>External resources: IT expert (for expertise on the ARCGis platform)</li> </ul>
(internal/external)	
	Text books, manuals, material provided by the teacher, dictionaries, user manual of the
TOOLS	ArcGis platform, Internet, connected devices (pc - laptop - tablet – smartphone), IWB.
	• My Story Map summative evaluation form;
EVALUATION	• My Story Map teachers' evaluation questionnaire;
	• My Story Map students' evaluation questionnaire;
	Individual evaluation for each discipline: the acquisition of specific learning ob-
	jectives and training objectives, instrumental to learning the expected compe-
	tences, will be verified through the ongoing development of diversified tests:
	true / false, open-ended questions, upon completion, short reports, etc.

# ANNEX III: RESOURCES – LEARNING UNIT TEMPLATE

	DENOMINATION	THE RULES	
	FINAL PRODUCT	PRODUCT The experience will lead students to create digital story-map through	
Communicate meaningfully: 1.1, 1.2, 1.3, 1.4, 1.5 Digital communication: 2.2, 2.3, 2.4 Digital content creation: 3.1, 3.2, 3.3, 3.4, 3.5 Personal awareness and responsibility: 4.1 Flexibility and adaptability: 5.3 Learning to learn: 6.3, 6.4, 6.5 Organize effectively: 7.1, 7.2, 7.3, 7.4, 7.5 Creativity and sense of initiative: 8.3, 8.4 Problem solving: 9.1, 9.2, 9.3, 9.5 Working with others: 10.1, 10.2, 10.3, 10.4, 10.5			2.3, 2.4 3.2, 3.3, 3.4, 3.5 ponsibility: 4.1 5.3 7.3, 7.4, 7.5 tive: 8.3, 8.4
		SKILLS	KNOWLEDGE
	with communicative effectiveness, taking into account the purpose and topic.  Participate in group activities by comparing with others, evaluating the various solutions proposed, assuming and completing roles and tasks; lend help to comrades in difficulty.  Planning actions in the personal and work environment, justifying the choices and evaluating the results.		<ul> <li>Knowing the methodologies and tools of information research: bibliographies, search engines</li> <li>Knowing the meaning of group and community;</li> <li>Knowing the general elements of verbal and non-verbal interpersonal communication</li> <li>Knowing about storytelling</li> <li>Knowing the digital tools of the storytelling</li> <li>Knowing how to build a story-map</li> <li>Knowing how to read and interpret legal texts</li> <li>Cooperative learning</li> <li>Logical-mathematical skills</li> </ul>
	TIMING OF IMPLEMENTATION	N 18 hours	
	SUBJECTS INVOLVED	Law (the Constitution), Mathematics (Euclidean postulates), Religion (the 10 commandments), History (the racial laws), Foreign Language (Middle Age in Europe), Geography (the European Union)	
	IMPLEMENTATION STEPS	<ul> <li>Classroom training with the project tutor and individual teachers on the use of the ESRI Story Maps platform (4 hours)</li> <li>Presentation of the main topic and subjects involved (2 hours)</li> <li>Assignment of tasks - processing of the story-map outline of each group (2 hours)</li> <li>Presentation by the teachers of the parts of didactic programme using story-telling inputs (2 hours)</li> <li>Material retrieval and text processing (3 hours)</li> <li>Elaboration and production of the digital story-map (3 hours)</li> <li>Presentation of the work (1 hour)</li> <li>Evaluation and feedback (1 hour)</li> </ul>	

ME	ETHODOLOGY	Frontal lessons and cooperative learning, group work, individual work, laboratory activities, Internet research.
	AN RESOURCES ernal/external)	Internal resources: class teachers, project tutor;     External resources: IT expert (for expertise on the ARCGis platform)
	TOOLS	Text books, manuals, material provided by the teacher, dictionaries, user manual of the ArcGis platform, Internet, connected devices (pc - laptop - tablet – smartphone), IWB.
E	EVALUATION	<ul> <li>My Story Map summative evaluation form;</li> <li>My Story Map teachers' evaluation questionnaire;</li> <li>My Story Map students' evaluation questionnaire;</li> </ul>
		Individual evaluation for each discipline: the acquisition of specific learning objectives and training objectives, instrumental to learning the expected competences, will be verified through the ongoing development of diversified tests: true / false, open-ended questions, upon completion, short reports, etc.

#### 12. LESSONS LEARNED

An implementation phase in the 5 countries accompanied the creation of this publication. The field trial was aimed at 78 students at risk of Early School Leaving, and saw 9 teachers apply and adapt what is recommended in this module in the way allowed by local conditions. For this reason we would like to emphasize once again that, precisely because the impact that we are going to describe below is an analysis of what has emerged on a small sample, both of students and teachers, it is intended to be just a further contribution for those who they are interested in inserting digital storymaps into teaching, for the purpose of preventing early school leaving. We will therefore try not to report the numbers as much as the trends that emerged in the five countries as well as the difficulties encountered and the points of attention that have been identified with respect to the proposed intervention model.

The reference age of the students involved is for the most part between 14 and 15 years old, or those who, in most countries, are most at risk of leaving the system due to the end of compulsory schooling. In fact, even where it continues after the age of 16, it is often offered the possibility of attending alternating courses, which combine part-time school courses with part-time courses in the workplace. However, Austria and Belgium have implemented My Story Map within these special didactics, allowing the consortium to test the proposed methodology with slightly older students but still included in the 18 years of age.

The introduction of digital storymaps was positively welcomed by students who appreciated this choice of their teachers. Not only did they consider that the work environment that was created was positive but they also appreciated very much the evident effort made by the teacher in choosing a part of teaching that posed challenges that were not impossible to achieve and stimulating, perhaps also for the guidance provided. An environment that therefore made them feel at ease, regardless of their situation with respect to the material itself to work on. A punctual and heartfelt accompaniment from the teachers who participated in the experimentation, which did not, in most cases, overshadow the students' autonomy and freedom to innovate and put their own.

The value of the work on a part of a study subject to be put into a digital storymap and the school's educational program was almost always clear to everyone. Very few students considered the "challenge" given by the teacher to be beyond their abilities.

One of the elements that almost half of the students highlighted as a critique was the time factor available for the course as a whole. In fact, it should be noted that the implementation conditions in the various countries, often due to the structural limitations imposed by the schools, led to an average duration of only 12 hours, compared to the recommended 15-25 hours. This indication is therefore to be considered to reinforce the idea that the joint action protocol proposed in the form is correct and that it must be applied with even greater rigor, at least in its minimum duration limit.



Two of the comments reported by students can help to read even more easily the impact that the proposed experience has had on the skills of students at risk of dropping out:

"The work done in groups has been really enjoyable, and I discovered that working in a group is so much better and fun"

"I had fun, we all did our bit and gave advice to each other. I enjoyed working with them and doing this work I learnt many things, I also really like the subject"

"Enjoyable", "better," fun "," enjoying working "and" really like the subject "must be inserted in the context of the object that these two students at risk of dropping out of school are describing: a digital storymap on the mathematics theorem of Ruffiini on the decomposition of polynomials. Something that most of us wouldn't usually consider funny. The way in which it has been addressed has become a reason for pleasant learning and not only a pleasure based on personal work, but on a group work, where the chances that this result is linked to one's own and individual propensity to maths.

The assessment tool for students contains a self-assessment part which has given very interesting results on some reference items, especially if we consider the internal displacements on the scale from 1 (low) to 4 (high) provided between the first after and after surgery. While most students, always and obviously limited to the school environment in all probability, believe they have a good initial endowment in terms of "public speaking" that threfore does not vary much, many consider their ability to describe significantly increased and explain ideas. The same is true when we move from the ability to browse and find digital content, which we attribute to be medium-high as digital natives, but there is a leap forward when research must not only be punctual and precise, but above all when it is one's own creativity that determines the result of the use of digital information technologies aimed at improving the map. The same dynamic occurs when students have found themselves evaluating their ability to be responsible and reliable, which although improving considerably, not what shifts from the value 1 and 2 to value 4 attributing to itself the ability to adapt to new environments of learning.



An improvement is also noticeable in the idea that they have of their ability to face challenges or the unknown, to draw on resources including that of asking for help, staying on schedule and reaching predefined quality deadlines compared to what was produced. If read with respect to the subjects involved, then the starting conditions for which these students were approached with the proposal to work with digital storymaps, the perception of being more capable now of being carefully focused on a task, and above all trust recovered in their endowment of creativity and ability to see things in different perspectives, they explain why it was not difficult for teachers to reasonably be able to attribute decidedly high summative assessments, which in some cases also allowed to identify alternative educational paths. In fact, experimentation in Italy, which is facing new provisions with respect to the almost automatic advancement of students until they are of compulsory school age, has shown how working with digital storymaps can plausibly provide a flexible and dynamic tool. in dealing with standard teaching programs, with students with migrant backgrounds, who have just arrived in Italy, facilitating the customization of the study method.

The need given by the use of the map to analyze causes and find logical solutions, to resort to one's own experiences in other areas and to be able to draw on the opinions of others, performing a task however with a group of peers to do something together, give a another value to working with others in which the individual is led not to see them in a competitive or comparative key but to find himself included as an active and essential element.

Teachers who have made use of the action module related to the prevention of Early School Leaving through digital story-maps believe that the built tool is accessible and provides good support. The underlying assumptions and materials provided seem to confirm their effectiveness in dealing with part of the teaching with digital story-maps, as they have proven to be a flexible tool with respect to the various approaches to learning that students present.

With all the limitations they still had to face in order to obtain an adequate working time with the students, they find the proposed structure well-timed and divided and are satisfied with the current level of materials, which always maintain a good balance between theoretical learning (deepening) and learning through doing. However, they also recommend making examples of maps already made on didactic parts available, simply as ideas from which to start without adopting them as a reference with respect to the expected final product. The content and possible activities are so varied as to allow the student to easily abandon paths already traced. The experiences made in fact indicate that the teacher's work is decisive on the part of choice of the part of teaching to be used and put on the map, of which he is definitely an expert, and then adopt an attitude closer to that of coaching, the facilitator , giving more and more space to the self-determination of the students with whom a relationship is created, if possible, even more satisfying because it is based on a good interaction and mutual gratification.



It is identified as the main obstacle to the involvement in new activities of a student at risk of dropping out of school, the tendency to hide behind boredom or tiredness, to call oneself out of the game. In this case, the teachers who participated believe that My Story Map offers an alternative study model that has the potential to change not only the attitude but also the role of the student in the classroom. It strengthens their ability to work alone and in a group and at the same time increases their relational capacity and improves their communication. Even if the practice of digital skills on a task that can be seen materializing step by step, and therefore can support personal satisfaction in a short period (while the study is usually perceived as giving results in the long run and therefore for this reason difficult), it is the most attractive aspect for the student, the operational abilities behind it represent the most concrete progress and the most transferable one also to the traditional studv.

Also in the case of teachers, we report directly a comment that makes the idea.

"The students are more than motivated to use the maps again."

Probably, if this were to happen, another element that was present in the My Story Map project's structure, that is the training course for teachers on the "mapping" part of teaching and on the functioning of the computer tools supporting the story-maps is actually an element that should not be underestimated, in order to make them able to support students, as one of the teachers involved in the experimentation points out:

"It would need much more time to get to know the platform and the different possibilities. The strict school and time schedule does not allow to invest too much time to study the platform."

In conclusion, implementing the module approach is certainly possible, and to tackle the main concern and practical problem of time an interdisciplinary approach of teaching must be used. This means typically the approach in project weeks or in subjects that match a broad range of subjects (like in Flanders PAV, a course in VET schools that covers history, geography, maths, language and sciences). Another possibility is that a team of teachers from different subjects, but with the same theme sit together and try to match their content and teaching. The examples learning units (see Annex II and III) can be used as a starting point to see in what way this can be done. It's important in those units to link the project to the different phases and to the competencies as listed in the learning objectives.

It might also be useful to see the use of the story-map approach in a learning progression line, whereby the pupils start using the ready-made story-maps as lesson materials at a younger age and learn to create their own later in their curriculum.

Other practical recommendation for the schools came out also of the consultation with teachers:

- although everyone can work with the free public account for the story maps it is adviced to
  use the organisational account. Schools can apply for this for free via <a href="https://www.esri.com/en-us/school-program-europe/">https://www.esri.com/en-us/school-program-europe/</a> overview, or contact their local ESRI office. With the school
  account teachers can choose that the story maps the pupils create are only visible for the
  school, or even for a specific class group inside the school. This is important for privacy reasons in some countries obligatory but offers also more flexibility for the teachers.
- 2. for other IT applications on school (like login in the school system), this to prevent the problem of lost passwords
- 3. the account of ESRI Story Maps is linked to ArcGIS Online (<a href="www.arcgis.com">www.arcgis.com</a>). This tool provides access to the world of digital mapping, using existing map layers or self-created map layers. In many subjects this is a very useful tool. Also the maps they create can be used inside the story-map platform.



