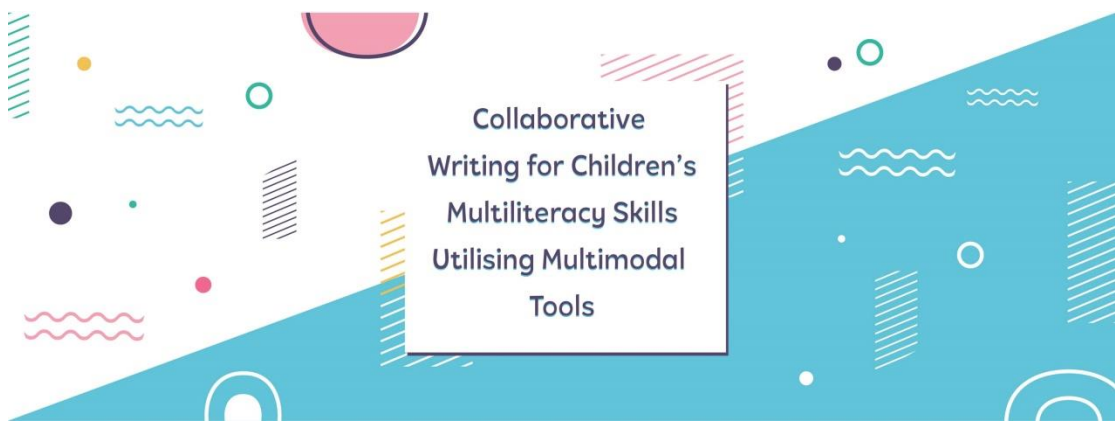


STORY LOGIC NET



MULTILITERACY EDUCATION COMPETENCES FRAMEWORK

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StoryLogicNet – Collaborative Writing for Children’s Multiliteracy Skills Utilising Multimodal Tools is a project co-financed by the Erasmus+ Programme, under the Key Activity 2 – Cooperation for innovation and the exchange of good practices for school education

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EXECUTIVE SUMMARY

The 'Framework for the Key Multiliteracy Competences' is the first significant deliverable of the StoryLogicNet Project. The Project aims at designing, developing and implementing an innovative online tool to support collaborative writing in order to develop and advance children's multiliteracy skills (8 -12 years old) for inside and outside and classroom, in formal, non-formal and informal education settings.

The Multiliteracy Education Framework includes the:

- European Multiliteracy Education programmes
- Linear and non-linear Story Logic Net for Digital Storytelling and Computer Supported Collaborative Writing (CSCWriting)
- Multiliteracy Education competences
- Summarise the conclusions in a Framework

UOWM leads the activity and writes a final report and partners provided insights during the kick-off meeting and well as they will provide feedback and insights from the national perspective.

As the literature for multiliteracies is limited, this framework's second aim is to provide the literature research as well as create new theories to identify and organize the Multiliteracy competencies developed by the consortium. Furthermore, the framework will be the starting point for the consortium to select and translate the most significant attributes into online tool features.

During the kick off meeting the partners exchanged information and ideas regarding this issue. UOWM as the leading partner of the corresponding task undertook the responsibility to conduct a literature review in order to clarify the necessary terminology, and provide the state of the art in Multiliteracy in the EU towards the key competences framework, including ways and benchmarking tools for measuring such competences. The rest of the consortium members undertook the role of the critical reviewer in order for deliverable quality assurance.

This document serves as a source for identifying the competencies to be treated by the StoryLogicNet tool and the supporting structure

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O1/A1 - Framework for Multiliteracy Key Competences

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Table of Contents

EXECUTIVE SUMMARY	3
ACKNOWLEDGMENTS	4
INTRODUCTION	6
MULTILITERACY PEDAGOGY IN EUROPEAN EDUCATION	6
MULTILITERACY IN THE EU	7
ADVANTAGES OF COLLABORATIVE WRITING	8
Multiliteracy Meaning Creation via Storytelling	9
Creative Collaborative Writing in Digital Storytelling	11
The Story Logic Net	11
STORY LOGIC NET LINEAR STRUCTURES	12
Linear Structure 1: The Hero's Journey	12
Linear Structure 2: The Harmon Cycle	13
Linear Structure 3: The Blake Snyder Beat Sheet	13
THE STORY DICE: STORY LOGIC NET NON-LINEAR STRUCTURE	15
DEFINING MULTILITERACY COMPETENCES	15
LEARNING OBJECTIVES & MULTILITERACY COMPETENCES	16
Multiliteracy Education	16
CSCWriting	16
Digital Storytelling via the StoryLogicNet tool	17
Digital Skills	17
STORYLOGICNET FRAMEWORK	18
The StoryLogicNet Tool	21
THE STORYLOGICNET USER/LEARNER CENTERED DESIGN	22
StoryLogicNet Tool Design UCD Structure	22
SLN 8 STEPS / STORY PLOT POINTS – AND REVIEW	22
SLN 8 STEPS COMPETENCES FRAMEWORK	25
End Notes	26
REFERENCES	28

INTRODUCTION

Multiliteracy Education in Europe aims to ensure that young people become competent in using multimodal representations of language capable of communicating and contributing to the development of social futures and well-being of the society in which they live in.

Multiliteracy is the ability to identify, interpret, create, and communicate meaning across a variety of visual, oral, corporal, musical and alphabetical forms of communication. Beyond a linguistic notion of literacy, Multiliteracy involves an awareness of the social, economic and wider cultural factors that frame communication. Multiliteracy aims to make classroom teaching more inclusive of cultural, linguistic, communicative, and technological diversity. The consortium advocates this so that the participants will be better prepared for a successful life in a globalized world.

More specifically, Multiliteracy Education aims to:

- develop multimodal literacy
- develop 4Cs skills: communication, collaboration, co-creativity and critical thinking
 - one-way and two-ways of communication (interaction)
 - collaborative skills and activities convergence skills
 - co-creativity skills: divergent, convergent and metacognition skills
 - critical thinking levels (e.g. in argumentation)
- develop certain values, attitudes and behaviours (work in teams, acceptance, work towards a bigger goal etc.)
- encourage active participation and engagement at school and community levels
- empower productive diversity
- develop multi-layered identity

MULTILITERACY PEDAGOGY IN EUROPEAN EDUCATION

StoryLogicNet increases Multiliteracy Competences of children (8 to 12 yo) by developing, testing and making available to educators and parents, a new learning methodology based on online collaborative writing for communicating meaning via digital storytelling for the 21st Century Creative Classroom.

StoryLogicNet resulted from the need to/of:

- absence of Multiliteracy approaches for the 21st Century Creative Classroom

- facilitate students' pathway for a successful life in a globalized world and for an active European Citizenship.
- a new learning methodology capable of delivering multiliteracy competences effectively
- allow practice exchange between teachers across Europe, contributing to their personal development and to meet the schools' and student's needs

European projects such T-Story as well as MuViT (Multiliteracy Virtual Comenius project) showed that intervention that follows pedagogies produces successful results for all learning participants.

Multiliteracy Education Pedagogy supports teachers and students as well as parents in negotiating complex and various discourses through multimodal texts constructed in the European contemporary multicultural and multilingual social context. A multiliteracy approach of creative language learning emerges from the cultural, linguistic, and technical experiences that learners bring into the classrooms and aims at the further development of a broad range and new forms of literacies.

Students and their families can contribute to their European community and to their future via the growing availability of new technologies, communication channels and increased access to cultural and linguistic diversity.

MULTILITERACY IN THE EU

Multiliteracies are related to multimodality for diverse forms of expression utilising the available ICTs, opposite to the monomodal existing classroom, deprived from the creativity brought by diversity. Such lack of cultural and linguistic diversity is represented in the ways teachers teach in their classrooms. Multiliteracies offer variability of meaning making in different cultural, social or domain-specific contexts without the language to focus on the national language via utilising multimodal tools. As such, multiliteracies are directly related to the citizenship education in Europe (e.g. EACEA, 2012; Co-creating European Union Citizenship, 2013; International Association for the Evaluation of Educational Achievement, 2010; European citizenship and EU expansion, 2009; Consortium of Institutions for Development and Research in Education in Europe, 2008).

Consequently, young learners can identify and transfer the identified patterns of cross-cultural meaning exchange within the European countries. Multiliteracies are also connected to the multimodal ways of meaning exchange and making via written-linguistic modes of meaning interface with oral, visual, audio, gestural, tactile and spatial patterns of meaning.

As such, current pedagogies are not enough. They need to be expanded to include these multimodal representations using as well as switching tools and ways of representing the same information or collaboratively constructed meaning.

Specific competences' areas include:

- Pedagogy: essential to define learning objectives and to develop a learning approach to the age group in question (children from 8 to 12)
- Multiliteracy Education: relate the learning objectives with the competences so to define a learning framework for the project
- Co-creation: develop, enhance and ensure collaborative creativity for pupils to jointly create stories in computer supported collaborative writing (CSCWriting)
- Digital Storytelling and critical thinking: develop linear and non-linear storytelling structures (the Story Logic Net) for the pupils to inspire in order to create their own meaningful collaborative stories
- Digital Storytelling attributes: these are defined in order to be translated into tool features that respects the principles of storytelling and fosters creativity and critical.

ADVANTAGES OF COLLABORATIVE WRITING

The term 'collaborative writing' refers to written works created by multiple people collaboratively. This process has been proven particularly effective as a teaching method. Collaborative writing takes advantages of the 4Cs and the multiliteracy pedagogy, offering multimodal ways of self-expression and wider community impact.

Children can learn a lot from writing stories and by engaging in a writing process in cooperation with others.

In fact, collaborative writing provides the means for teachers to engage in effective literacy instruction, not through isolated skills' lessons, but within the framework of constructing texts filled with personal and collective meaning (Button, Johnson, Furgerson, 1996).

Furthermore, this process stimulates the development of key transversal competences like creativity, communication, teamwork and even foreign languages.

Collaborative writing is also flexible, as by adjusting the writing topics it is possible to explore particular relevant subjects. Thus, for instance, in a school with bullying problems, writing about this subject can make pupils more aware, less likely to

engage in unwanted behaviours and more prone to act when facing unwanted situations.

Considering that:

- Multiliteracies are increasingly important to create a more cohesive Europe and a stronger EU, capable of facing the current challenges
- Multiliteracies help children to grow and be actively participating citizens and can help solving current societal challenges (e.g. transfer of skills and acceptance)
- Collaborative writing is a flexible learning approach that allows developing a wide range of citizenship and other transversal competences, and address particular topics more relevant for each specific school community

Consequently, new Multiliteracy approaches focusing on young children and using innovative pedagogies, methods, like collaborative writing, and multimodal tools should be encouraged.

Multiliteracy Meaning Creation via Storytelling

Multiliteracy is connected to multimodality, the freedom to use any medium and tool to create meaning in the new technologies' world. As such, the oral and textual language format has lost its pivotal importance. Meaning is now shaped with more semiotic means, evident in the multimodal meaning expression using diverse media and tools.

Multiliteracy (The New London Group, 1996; Cope and Kalantzis, 2000) is the ability to identify, interpret, create, and communicate meaning across a variety of visual, oral, corporal, musical and alphabetical forms of communication involving an awareness of the social, economic and wider cultural factors that frame communication. Multiliteracy aims to make online and classroom teaching more inclusive of cultural, linguistic, communicative, and technological diversity. This creative learning framework is anchored in the central multiliteracies concept of design as an active and dynamic process applied to each semiotic activity, including language use, for the production and understanding of a text (Lambropoulos & Romero, 2015).

Within the StoryLogicNet project, storytelling was chosen as multimodal communication means. With multimodal digital storytelling expression of thoughts, ideas and opinions and sharing them with a larger audience is easier and accessible than never before, while at the same time they improve skills and competencies by creating their own stories. Children also become more active and productive in individual or collaborative communication activities. The most important benefit of digital storytelling, is innovative and critical thinking, problem solving and decision making, collaboration, creativity, innovation and development of digital literacy.

Digital storytelling and creative writing are the two sides of the same coin. Creative writing techniques improve the stories which are the core elements of digital storytelling.

Digital storytelling and creative collaborative writing are two distinct fields that share an important common point (Bratitsis et al., 2014; Melliou et al. 2014; Bratitsis et al., 2011): the story and also the digital medium, selecting a meaningful topic and spending more time on the story creation is fundamental for an effective and successful digital story. A second common point is the wide range of the stories. Creative writing includes all kinds of writing. When creating digital stories, more types of literacy are involved. Robin (2006; 2008) suggested that “Twenty-first Century Literacy” is described as the combination of:

- Digital literacy: the ability to communicate with an ever-expanding community in order to discuss issues, gather information, and seek help;
- Global literacy: it relates to the capacity to read, interpret, respond and conceptualize messages from a global perspective;
- Technology literacy: it regards the ability to use computers and other technological tools in order to improve learning, productivity and performance;
- Visual literacy: it is the ability to understand, produce and communicate through visual images;
- Information literacy: it is the ability to find, evaluate and synthesize information.

Digital storytelling is the combination of traditional, oral narration with multimedia and communication tools combining different types of multimedia material, including images, text, video clips, audio narration and music to tell a short story on a particular topic or theme (Bratitsis et al., 2014; Melliou et al. 2014). Digital stories can be stored or published on the internet, allowing people to review, critique and discuss upon them, thus enhancing their educational value and life span.

Digital storytelling emerged out of the work of Joe Lambert and Dana Atchley, the co-founders of the Centre of Digital Storytelling (CDS) in Berkeley University, California, in 1993. Digital storytelling is a way to present new material and capture attention, facilitate interaction and increase a full complement of literacy skills, including, according to Robin (2016):

- Research Skills: Documenting the story, finding and analysing pertinent information;
- Writing Skills: Formulating a point of view and developing a text;

STORY LOGIC NET

- **Organizational Skills:** Managing the scope of the story, the materials to be used and the time it takes to complete the task;
- **Digital Skills:** learning to use a variety of tools, such as digital cameras, scanners, microphones and multimedia authoring software;
- **Presentation Skills:** Deciding how to best present the story to an audience;
- **Interview Skills:** Finding sources to interview and determining questions to ask;
- **Interpersonal Skills:** Working within a group and determining individual roles for group members;
- **Problem-Solving Skills:** Learning to make decisions and overcome obstacles at all stages of the project, from inception to completion; and
- **Assessment Skills:** Gaining expertise by critically evaluating their own and others' work.

Creative Collaborative Writing in Digital Storytelling

Creative collaborative writing and digital storytelling include creativity techniques, processes and frameworks for both idea generation and problem solving i.e. engaging both brain hemispheres. Creative collaborative writing is a process which stimulates creativity and imagination for telling a story. Digital storytelling combines the art of storytelling with multimedia. The story creation and digital storytelling in particular, can improve human creativity and creative learning, mainly via two axes: motivation enhancement and improvement of related abilities.

Creative collaborative writing is the capturing of ideas and feelings about a particular theme. It is characterized by originality and imagination based on writing creatively and thinking openly as well as critically about writing. While the history of creative writing begins in ancient Greece, it emerged as a scientific discipline within the U.S. academic community, in the early 20th century. Today, creative collaborative writing can be taught as a process which focuses on the production by stimulating creativity. In addition, creative writing techniques enable everyone to become better writers so to participate actively in communication, by expressing their feelings and understanding the importance of writing and expression.

The Story Logic Net

Following the interrelated connection between creative writing and storytelling, creativity environments can enhance the different types of creativity depending on the type of solutions a user seeks. Analytical thinking is enhanced by providing the user with environments with detail and narrow, step-by-step sequencing as well as with problem solving. In contradiction, insights are triggered by low light, relaxing sounds

and hiding details, providing abstract metaphors and colours in order to transport the user in a relaxed state of mind.

Nowadays the viewer discovers meaning via interpreting fragments of the story in order to build the story in his mind himself. Thus, he becomes an active participant in the story creation and the challenge for the storyteller is to provide as many fragments as appropriate and not more. The user actively participates in the story creation using different technical and storytelling tools including but not limited to: withholding, anticipation, discovery, the law of contradiction, location as allegory, visual metaphors, triggers and anchors as well as seeking visual expressions for time, tense and flow of location.

STORY LOGIC NET LINEAR STRUCTURES

Within the StoryLogicNet project, several linear story creation structures were studied and incorporated. They are presented in this section.

Linear Structure 1: The Hero's Journey

The hero's inner and outer journey (Campbell, 1949) is structured here to match the Aristotelian 3-acts structure (Aristotle, 1937), in our case, the ordinary world, the special world and back.

The Hero's journey describes the inner and outer journey of a person who commits himself to solve a major problem. There are 12 steps in average for such journey:

1. Limited awareness of the problem in the ordinary world
2. The hero increases his understanding of the problem but he requires a need for change in order to master the problem and find a solution.
3. However, resistance to change appears, fear and reluctance to leave his comfort zone and his ordinary world and activities.
4. If he decides to proceed and overcome his fear he needs a mentor and training or someone to help him overcome his limitations and fear to move on.
5. If after the training and mentor's persuasion decides to proceed and cross the threshold, then a commitment to change transforms him and the real story begins.
6. Before dealing with the problem he needs to test himself with challenges and temptations, enabling small or bigger wins including identifying his enemies and allies.
7. The real world and the problem waits for him and for this, the real challenge is ahead of him. A second dilemma and decision to proceed advances the story.

8. Real world is not training and a life threatening situation is the consequence and result of attempting to change the world and accept a new life beyond the ordinary (atonement).
9. A reward externalises such major win and the new life manifests.
10. But the major problem exists and he needs and total transformation of himself.
11. New dangers appear on his journey he has to master.
12. Finally, he masters the problem and returns to the ordinary world changed as well as with the ability to transcend the problem for his and for the world.

The hero's journey is a standard narrative for most storytellers and has been successfully tested through the years.

Linear Structure 2: The Harmon Cycle

Dan Harmon's Cycle (n/d) is a simplification of the previously mentioned hero's journey (Figure 1).

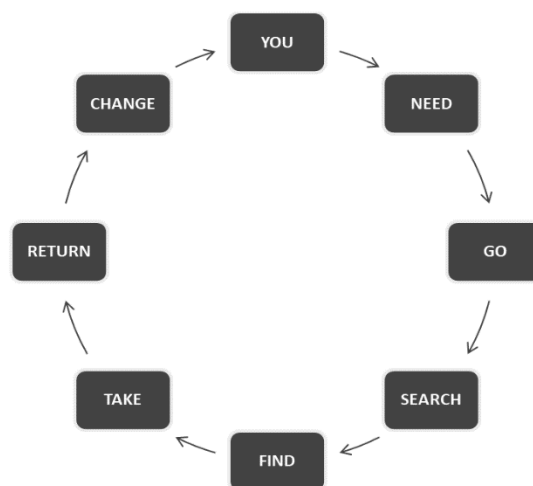


Figure 1. The Harmon Cycle

Harmon's cycle identifies a need and goes on a journey to search, find and take what he needs and/or wants. Then he returns to the ordinary world having changed through the journey.

Linear Structure 3: The Blake Snyder Beat Sheet

The third VR Storytelling structure is the well-known Blake Snyder's beat sheet (Snyder, 2008):

1. Opening Images representing the problem, struggle and tone as well as the ordinary world of the story.
2. Set-up expands the previous images and presents the main character's ordinary world as it is, and what is missing in their life.

STORY LOGIC NET

3. Theme Stated, as what the story is about; the message, the truth.
4. Catalyst or inciting incident is the moment where life as it is changes. The “before” world is no more, change is underway.
5. Debate on change as fear raises and the main character doubts the journey they must take.
6. Break Into Act II as the main character makes a choice and the journey begins.
7. B Story is another story in the main story, usually the love story.
8. The Promise of the Premise is when the main character explores the new world.
9. Midpoint moment is when everything is “great” or everything is “awful”. The main character either gets everything they think they want (“great”) or doesn’t get what they think they want at all (“awful”). But not everything we think we want is what we actually need in the end.
10. Bad Guys Close In as doubt, jealousy, fear, foes both physical and emotional regroup to defeat the main character’s goal, and the main character’s “great”/“awful” situation disintegrates.
11. All is Lost is the moment that the main character realizes they’ve lost everything they gained, or everything they now have has no meaning. The initial goal now looks even more impossible than before. Death of something old makes way for something new to be born.
12. Dark Night of the Soul follows as the main character wallows in hopelessness. One must fall completely before he can pick himself back up and try again.
13. Break Into Act III where fresh idea, new inspiration, or last-minute thematic advice from the B Story (usually the love interest), the main character chooses to try again.
14. Finale is when the main character incorporates the theme – the nugget of truth that now makes sense to them – into their fight for the goal because they have experience from the A Story and context from the B Story.
15. Final Images are usually opposite of the opening images, proving, visual evidence that a change has occurred within the character.

This structure has been successfully used in famous multimodal stories (e.g. ones involving Marvel’s heroes).

THE STORY DICE: STORY LOGIC NET NON-LINEAR STRUCTURE

The Story Dice idea is based on the use of the previously linear structures, however, defragmented from each other, thus creating interesting and engaging potential in storytelling. Furthermore, it provides a legitimate tool to handle ‘The Writer’s Block’; the panicking storyteller’s state in front of the blank page or when all resources are exhausted. For this reason, basic ideas from all linear structures can provide the background for symbols’ design and random utilisation. Such loose structure enables the users to choose from both a linear or random event and action to advance their story.

The StoryLogicNet attributes can be used as menus for the computer and the user to identify and choose co-creatively every step of the story structure and how the story will continue.

DEFINING MULTILITERACY COMPETENCES

Multiliteracy is the ability to identify, interpret, create, and communicate meaning across a variety of *visual, oral, corporal, musical and alphabetical* forms of communication (in our case storytelling) involving an awareness of the social, economic and wider cultural factors that frame communication.

Multiliteracy aims to make online and classroom teaching more inclusive of cultural, linguistic, communicative, and technological diversity.

Multiliteracy Education aims to:

- Develop multimodal literacy
- Advance 4Cs competences: communication, collaboration, co-creativity and critical thinking
- Cultivate certain values, attitudes and behaviours
- Encourage active participation and engagement at school and community levels
- Empower productive diversity
- Create multi-layered identity

LEARNING OBJECTIVES & MULTILITERACY COMPETENCES

The following tables were created in the kick-off meeting and refer to the way the StoryLogicNet learning objectives are associated with the related competences.

Multiliteracy Education

Learning Objectives	Competences
Learn about the overall collaborative values, attitudes and behaviours required for a multiliteracy project	Diversity awareness and EU related values (work in teams, acceptance, work towards a bigger goal)
Create and work together on a multiliteracy project empowering productive diversity	4Cs: communication (1 way - 2 ways as interaction), collaboration (CSCL), co-creativity (divergent, convergent and metacognition) and critical thinking (CSCL argumentation, ideas evaluation)
Critically evaluating own and others' work	Assessment
Use diverse media to create a multiliteracy project (visual, oral, corporal, musical and alphabetical/text)	Multimodal use of tools towards meaning creation
Engage on a micro level conveying the EU macro goals	Active participation and engagement at school and community levels
Develop multi-layered local, EU and global identity	Inclusive online collaborative storytelling

CSCWriting

Learning Objectives	Competences
Conduct investigation and experimentation using any available tools	Agree, evaluate and resolve conflicts in CSCWriting Digital Presentation and communication
Use formatting, graphics, and multimedia in integrating and synthesizing different sources of information to create meaning	Develop transversal competences, from literacy, to critical thinking, to storytelling, to teamwork Digital literacies
Use diverse techniques to evaluate arguments and reasoning	Interviewing
Create clear common comprehension	Adapt and transfer competences for the best possible solutions Find the best ways to convey meaning utilizing any available multimedia format

Digital Storytelling via the StoryLogicNet tool

Learning Objectives: How to-	Competences
Storytelling ideas	Collaborative idea generation
Ideas evaluation and selection	Research
	Interpersonal
	Problem-Solving
	Assessment
Storytelling structures charts - genres	Story engineering
Storytelling plot structures and information organisation	Organizational
Storytelling heroes menu (social, economic and wider cultural factors)	Diversity awareness and utilisation in characters' development
Storytelling settings (social, economic and wider cultural factors)	Multinational location awareness and utilisation in inclusive online collaborative storytelling
Storytelling dialogue and subtext (social, economic and wider cultural factors)	Creative Writing
	Diversity awareness through the use of language
Storytelling dramatic devices (conflict/tension, dramatic irony, twists, setups/payoffs, misleads/reveals etc)	Develop transversal competences, from literacy, to critical thinking, to storytelling, to teamwork

Digital Skills

It is essential to recognize the importance of digital skills for young students. The individual and household indicator metrics has been developed in 2015 by the EC: DG CONNECT and the Eurostat Information Society Working Group agreed to create and publish a "Digital Skills Indicator" based on the [Digital Competence Framework](#) (developed by JRC and DG EAC, and available for self-assessment on the [Europass](#) website). The digital skills indicators include (Digital Skill Indicator, 2016):

1. Information skills

Definition in Digital Competence Framework: identify, locate, retrieve, store, organise and analyse digital information, judging its relevance and purpose.

- Obtained information from public authorities/services' websites
- Finding information about goods or services

2. Communication skills

Definition in Digital Competence Framework: communicate in digital environments, share resources through online tools, link with others and collaborate through digital tools, interact with and participate in communities and networks, cross-cultural awareness.

- Sending/receiving emails
- Participating in social networks

- Telephoning/video calls over the internet
- Uploading self-created content to any website to be shared

3. Problem solving skills

Definition in Digital Competence Framework: identify digital needs and resources, make informed decisions as to which are the most appropriate digital tools according to the purpose or need, solve conceptual problems through digital means, creatively use technologies, solve technical problems, update one's own and others' competences.

A – Problem solving

B – Familiarity with online services

4. Software skills for content manipulation

Definition in Digital Competence Framework: Create and edit new content (from word processing to images and video); integrate and re-elaborate previous knowledge and content; produce creative expressions, media outputs and programming; deal with and apply intellectual property rights and licences.

A – Basic

- Used online and desktop writing software
- Used software to edit photos, video or audio files

B – Above basic

- Created presentation or document integrating text, pictures, tables or charts
- Used advanced functions of spreadsheet to organise and analyse data (sorting, filtering, using formulas, creating charts)
- Have written a code in a programming language

Considering the Digital competences, as described earlier in this document and the ICT potential and possibilities nowadays, many of the elements that appear in Figure 2 include a digital or ICT-based constituent. For example resources to manage in order to communicate a vision are social networks and the internet. Collaboration can be computer supported, digital tools can be used for designing solutions and products, etc. Thus, in the contemporary Era, ICTs can be considered as a holistic container for all the key competences of the proposed framework.

STORYLOGICNET FRAMEWORK

In the previous sections of this document, the following issues were discussed: Multiliteracy Education, Digital Storytelling, Collaborative Writing and Digital Skills. It becomes evident that by treating one through the other (e.g. Multiliteracy cultivation through digital storytelling), interconnecting competence areas emerge. This convergence is depicted in the schematics of Figures 2 and 3.

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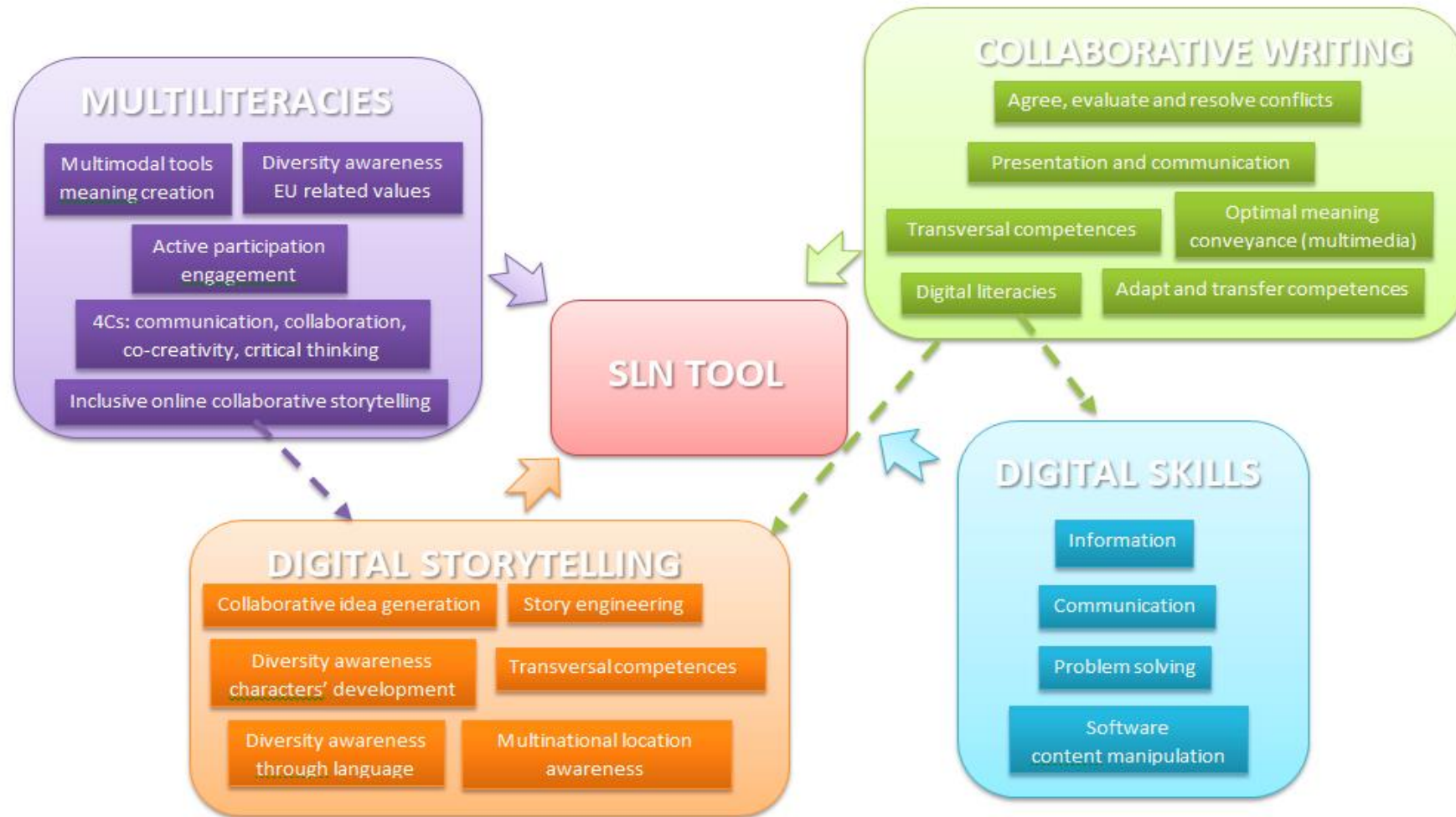


Figure 2. StoryLogicNet Competences Framework

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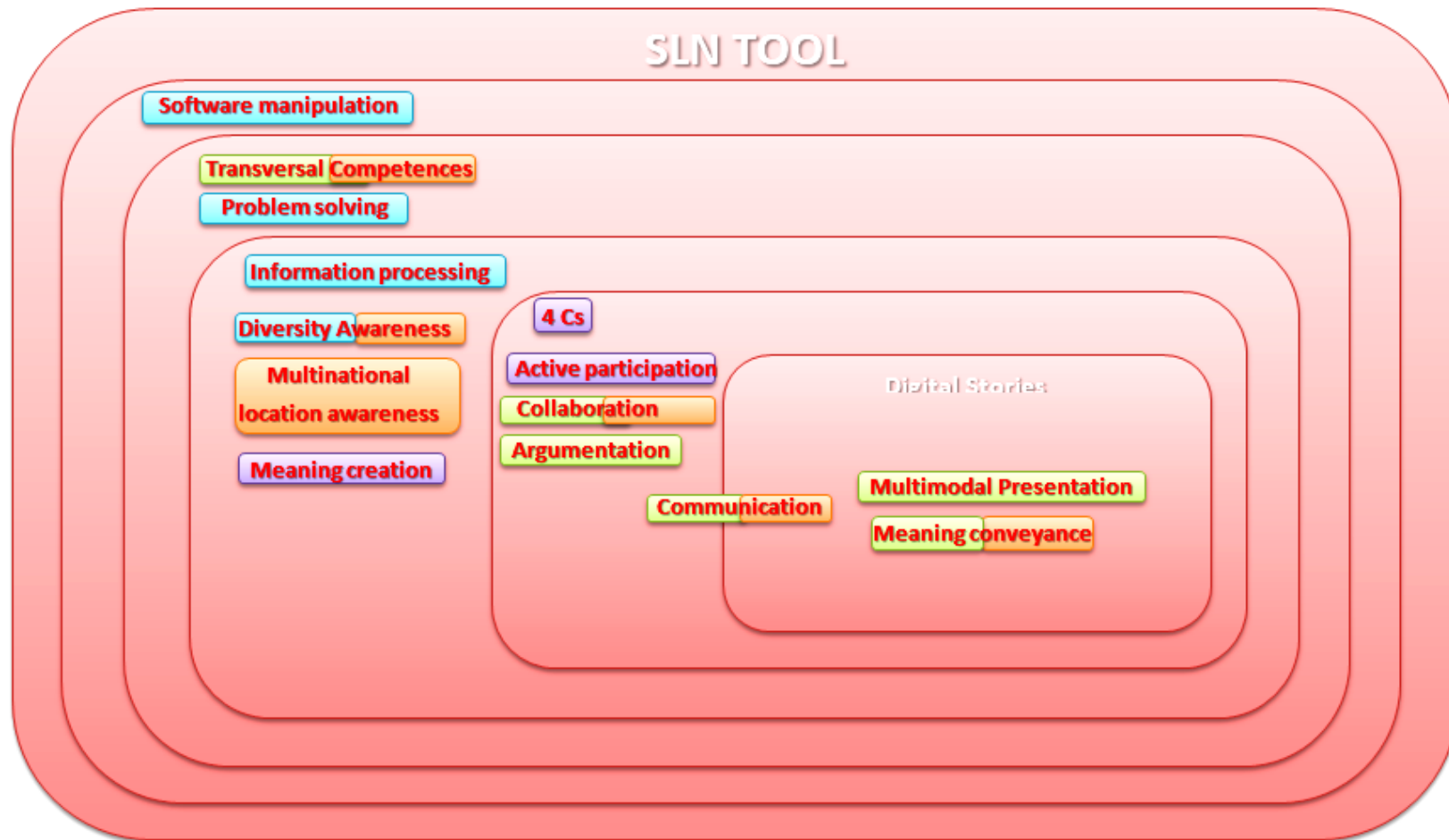


Figure 3. StoryLogicNet Competences Interconnection (box coloring follows the coloring scheme of Figure 2)

The StoryLogicNet Tool

which also demonstrate the way that the StoryLogicNet tool is influenced by and treats/supports these areas.

StoryLogicNet aims to identify, interpret, create and communicate meaning with *visual, oral, corporal, musical and alphabetical* forms of communication based on the suggested linear and non-linear story structures (Figure 4) involving an awareness of the social, economic and wider cultural factors that frame communication.

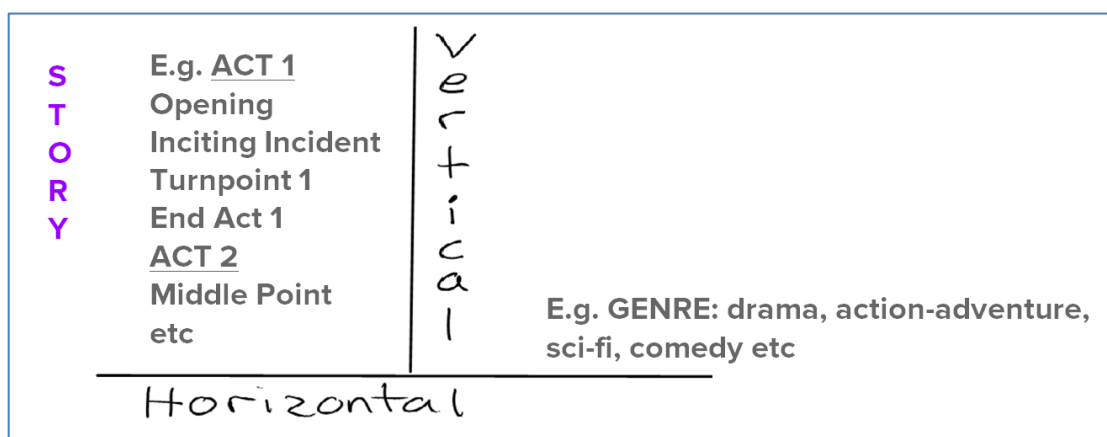


Figure 4. StoryLogicNet Vertical & Horizontal Structures

The StoryLogicNet tool:

- Uses multimedia
- Is based on CSCL small groups research (5-10 students)
- Provides story structures for shared meaning
- Ready menus for genres & themes
- Supports shared meaning by
 - Idea generation and sharing
 - Jigsaw puzzle / Dada Technique (continue where the story is left)
 - Collaborative writing
- Supports advancing based on shared meaning and story
- Supports awareness for the social, economic and wider cultural factors for each participating country

THE STORYLOGICNET USER/LEARNER CENTERED DESIGN

As StoryLogicNet Community aims to implicate teachers and students as well as parents in the creative writing process, this section sums up and interconnects the selected 6 stages as plot points to the competences framework along with supportive educational material for each stage.

StoryLogicNet Tool Design UCD Structure

The previous creative writing and narratives structures provided the canvas for similarities identification and the SNL Tool Stages structure. As such, the User/Learner Centred Design (UCD) structure appears as follows, decided after the overall discussion in the 2nd partnership meeting:

SLN 8 STEPS / STORY PLOT POINTS – AND REVIEW

1. ACT 1: Opening (description of opening scene and setting)
2. Inciting Incident (something that initiates the plot evolvment)
3. End of Act 1 Twist Point (introduction of an element to enhance and contextualize plot)
4. ACT 2: The protagonist's new world (new insights to be provided)
5. Midpoint (plot, part 2)
6. End of Act 2 Twist Point (concluding scene)
7. ACT 3: Climax (Plot reaches a climax)
8. The End (solution is provided)
Review (critical review and feedback provision)

This is a simplified structure which derives from the convergence of the previously presented, common story creation structures which can be found in the literature. It comprises of 8+1 steps (in 3+1 sections) which can support a collaborative writing activity (Figure 5), involving 4 students. There are 3 ACTS which can be undertaken by 3 users and finally (the +1 in the step sequence) a 4th user reviews the whole story using a predefined evaluation rubric, focusing on coherency, structure following, meaning making, etc. After the review, it is optional for the group to re-examine the story for modifications.

Of course, considering that this framework prescribes 4 core roles (Acts 1 to 3 and Reviewing), any combination could be used by having more or less students undertaking these roles in a group setting.

Figure 6 illustrates how the SLN tool structure was influenced by the existing models in the literature. The correspondence of each step to multiliteracy competences is presented in the next section.

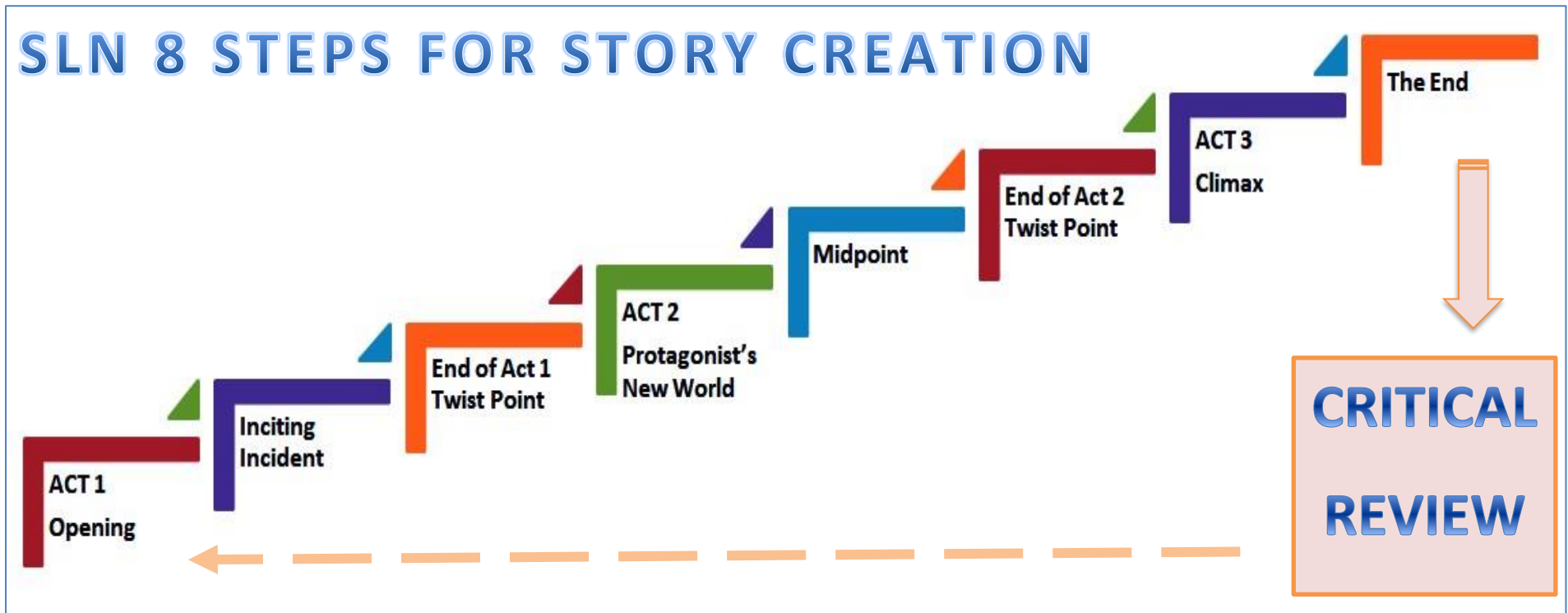


Figure 5. StoryLogicNet Tool 8 Steps Story Creation Structure

STORY LOGIC NET

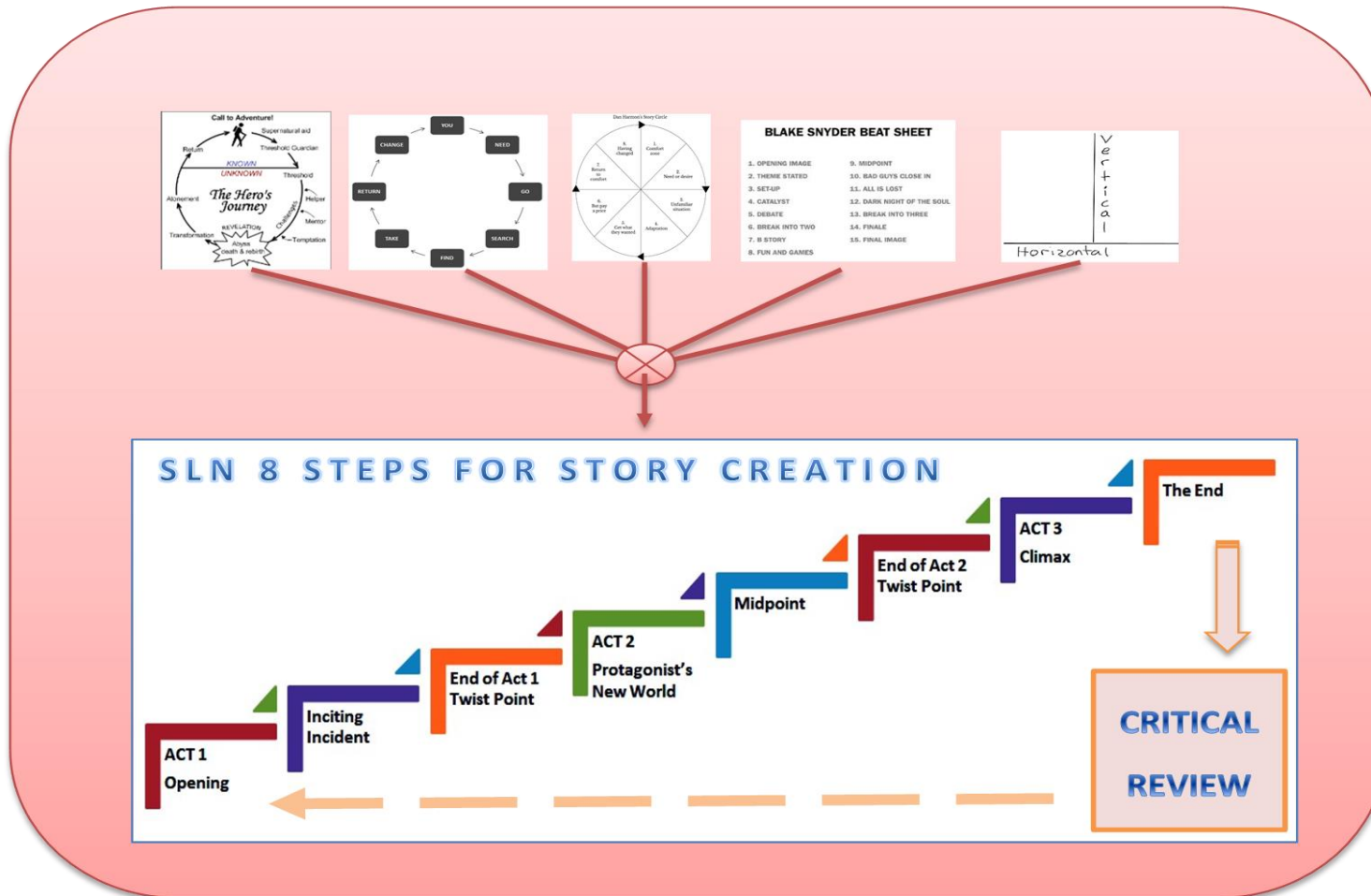


Figure 5. StoryLogicNet Tool Overall Structure

SLN 8 STEPS COMPETENCES FRAMEWORK

SLN 8 Steps Competences framework follows the Quality by Design guidelines in the Project Quality Plan and the extended literature review. The linear structures common points were identified and the role of the (story) reviewer was specified. The latter is an additional role which adds value to the whole approach as it incorporates a reflective element in it. The reviewer is required to evaluate the collaboratively created story and thus provide justified feedback to the group, which may lead to the modification of the story or not. In order to do so, the reviewer needs to understand all the involved story elements (e.g. conveyed message, backstory, context) and furthermore argument upon the adequacy of the story. Several competences are further involved and elevated through this step. Hence, the following table interrelates the SLN 8 Tool Steps with the SLN Competences.

SLN 8 STEPS MULTILITERACY COMPETENCES		
	SLN 8 STEPS	COMPETENCES
1	ACT 1: Opening	EU Diversity awareness Inclusive storytelling Collaborative Story ideas Diversity awareness and utilisation in characters' creation and development Collaborative decision on genre, type and theme story Convey meaning and theme in the first pages Multimodal use of tools for meaning creation 4Cs: communication, collaboration, co-creativity and critical thinking SUPPORTING MATERIAL: Empathy Maps – Themes – Story types – Scene descriptors – Story Dice
2	Inciting Incident	Inclusive storytelling Multimodal use of tools for meaning creation Collaborative writing Story engineering Problem-Solving SUPPORTING MATERIAL: Prompt cards, Question sets – Concept mapping ideas – Story Dice
3	End of Act 1 Twist Point	Inclusive storytelling Multimodal use of tools for meaning creation Collaborative writing Story engineering Problem-Solving SUPPORTING MATERIAL: Prompt cards, Question sets – Concept mapping ideas – Story Dice
4	ACT 2: The Protagonist's New World	Inclusive storytelling Multimodal use of tools for meaning creation Collaborative writing

5	Midpoint	<p>Story engineering Problem-Solving SUPPORTING MATERIAL: Empathy Maps – Scene descriptors – Story Dice Inclusive storytelling Multimodal use of tools for meaning creation Collaborative writing Story engineering Problem-Solving SUPPORTING MATERIAL: Action cards – Story Dice</p>
6	End of Act 2 Twist Point	<p>Inclusive storytelling Multimodal use of tools for meaning creation Collaborative writing Story engineering Problem-Solving SUPPORTING MATERIAL: Story Arcs – Plot prompts, Question sets – Concept mapping ideas – Story Dice</p>
7	ACT 3: Climax	<p>Inclusive storytelling Multimodal use of tools for meaning creation Collaborative writing Story engineering Problem-Solving SUPPORTING MATERIAL: Prompt cards, Question sets – Story Dice</p>
8	The End	<p>Open, Closed SUPPORTING MATERIAL: Prompt cards, Question sets</p>
CRITICAL REVIEW		<p>Team Working Critical thinking Evaluation and assessment Conflict management Collaborative decision making Presentation and communication Transversal competences SUPPORTING MATERIAL: Evaluation Rubric, Question sets</p>

End Notes

The ‘Framework for the Key Multiliteracy Competences’ is the first significant deliverable of the StoryLogicNet Project. The Project aims at designing, developing and implementing an innovative online tool to support collaborative writing in order to develop and advance children’s multiliteracy skills (8 -12 years old) for inside and outside and classroom, in formal, non-formal and informal education settings.

For that matter, a set of competences was defined after a thorough literature review and a new, simplified and liners story structure was designed in order to support the process of collaborative digital storytelling. The structure comprises in 8+1 steps and is designed for groups of 4 collaborating students, although the group settings can be

STORY LOGIC NET

altered according to the needs of the teaching activity, provided that the steps are maintained. So, for example a student can undertake more than one steps (e.g. ACT 1 and ACT 3) or a group of students can collaboratively work on a specific step.

The online tool which constitutes the main product of the project will incorporate supporting tools for all the steps (detail elaboration will be made in the specification internal document).

As a conclusion, this document proposes a set of competences which derive from the Multiliteracy and other theories, to be treated by the main products of the project. It can serve, not only as an initial point for the design of the StoryLogic Network, but also as a point of reference for those who wish to gain new insights in educational design in order to better treat the emerging competences in the literature. For that matter, the approach of Collaborative Digital Storytelling as a Multimodal, Meaning making process is proposed.

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