# DILECTINGS

DIGITAL LITERATURE EDUCATIONAL COMPETENCIES FOR TEACHERS: INTERCULTURAL INCLUSIVE GOOD-PRACTICES FOR SECOND-LANGUAGE LEARNING



edited by Raffaella Leproni, Mireia Canals-Botines







Università degli Studi Roma Tre Dipartimento di Scienze della Formazione

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Ricerche e intersezioni scientifiche. Per l'educazione nel presente: le scienze umane, l'internazionalizzazione, le reti, l'innovazione



Volume co-finanziato dal Dipartimento di Scienze della Formazione dell'Università Roma Tre nell'anno 2024.



DILECTINGS – DIgital Literature Educational Competencies for Teachers: Intercultural iNclusive Good-practices for Second-language learning project number 2021-1-IT02-KA220-SCH-000029774



Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.

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#### Caratteri tipografici utilizzati:

Acumin Variable Concept, Brandon Grotesque, Corporative Sans, Minion Pro Regular, American Typewriter, Cambria, Helv. Neue (copertina e frontespizio) Adobe Garamond Pro (testo)

*Edizioni: Roma Tr E-Press*© Roma, novembre 2024 ISBN: 979-12-5977-383-8

http://romatrepress.uniroma3.it

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# Alexandra Tosi<sup>\*</sup>

# Foreword

In the context of modern education, the continuous professional development of teachers is vital to address the challenges posed by a rapidly changing world, characterized by technological advancements and cultural shifts.

The need to equip both teachers and learners of Second/Foreign Language with tools and strategies enabling them to deal with the complexities of language learning while tackling their ICT competences has come at the forefront of EU priorities. The Erasmus+ Key Action 220 *DILECTINGS – DIgital Literature Educational Competencies for Teachers: Intercultural iNclusive Good-practices for Second-language learning*, carried out in four EU countries between 2021 and 2024 under the coordination of Roma Tre University (Italy) and counting on four Higher institutions and four school partners from Spain, Ireland and Romania, represents a valuable attempt to provide the educating community with such strategies and tools, so to improve both language and ICT competences in teachers and learners. The project's results feature a Pedagogical framework orienting the path provided in the Moodle course developed in the dedicated platform, along with a Toolkit devised for teachers. This book complements the offer, as while summarising the project's development, it provides guidelines and references to use Digital Literature in the language classroom.

The research conducted at University level has been used to develop an eTwinning project involving the four school partners, to test the pedagogy and methods proposed in the course provided to the teachers involved; this integration highly contributed to the success of the project itself, promoting transversal collaboration and cooperation and consolidating the feeling of belonging to a community of practice.

In this regard, eTwinning stands out as one of the most significant and innovative European initiatives supporting teachers' professional growth. Through its collaborative platform and community of practice, eTwinning offers a safe and facilitated environment where educators can engage in meaningful professional development and research-action. eTwinning serves as a "training ground" for teachers, providing a secure and supportive space to apply newly acquired knowledge, experiment with innovative teaching practices, and collaborate with peers across Europe. This environment is enhanced by the ongoing support of National Support Organizations and a network of eTwinning Ambassadors, who offer guidance and assistance throughout the

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process. This continuous support structure ensures that teachers can confidently explore new pedagogical approaches, knowing they have access to resources and expertise that will aid their development.

One of the key strengths of eTwinning is its dual role in fostering both formal professional development and informal peer learning. Teachers have the opportunity to participate, at their own pace and mode, in targeted training sessions (at local, national and international level), webinars and online courses, and workshops designed to enhance specific skills and competencies. This multilanguage, multilevel and highly customisable and diversified training offer is complemented by the platform's many opportunities for exchanges, networking and project collaboration, with a strong emphasis on peer learning and learning by doing. Teachers can learn from each other's experiences, share best practices across Europe, and collaboratively develop new teaching methods.

The collaborative nature of eTwinning projects is particularly beneficial for research-action, where teachers can implement and test new ideas in real classroom settings. By engaging in eTwinning projects, teachers are exposed to a wide array of digital tools and pedagogical approaches, which they can then integrate into their teaching practices. By working alongside colleagues from different European countries, educators can gain fresh perspectives, refine their approaches, and create innovative solutions to common educational challenges. This collaborative experimentation not only enriches the teaching practices of individual educators but also contributes to the broader educational community by generating new knowledge and practices that can be shared across the network. Such vision is central to DILECTINGS, where the project's outcomes are strategically designed to promote collective knowledge creation and the advancement of shared practices.

Furthermore, eTwinning can play a crucial role in developing intercultural understanding and collaboration among both students and educators, fostering an environment of mutual respect and cross-cultural awareness. As teachers engage in projects that often involve students from diverse cultural and linguistic backgrounds, they themselves become more attuned to the principles of inclusion and diversity, within and outside their classroom. This awareness is crucial as it allows educators to better support their students in becoming global citizens, equipped with the skills and knowledge to thrive in a multicultural world.

eTwinning is much more than a platform for school collaboration; it is a dynamic and evolving community of practice that plays a critical role in the professional development of teachers. By providing a safe and supportive environment for experimentation, collaboration, and continuous learning, eTwinning empowers educators to develop and refine their skills in line with the demands of modern education. Through its integration into the KA220-SCH action, DILECTINGS aims to ensure that teachers are not only prepared to meet the challenges of today's classrooms but are also equipped to lead the way in shaping the future of education across Europe.

# Raffaella Leproni\*

# Introducing DILECTINGS. Digital Literature and Literature Digital Reading in L2/FL teaching and learning for a sustainable, intercultural, inclusive education

This book represents the final output of DILECTINGS, "DIgital Literature Educational Competencies for Teachers: Intercultural iNclusive Good-practices for Second-language learning", a three-years Erasmus+ KA220-SCH action project aiming to promote and scale-up Digital Literature Literacy (DLL) and Literature Digital Reading (LDR) skills along with reading, language and culture competences in European schools, through the achievement, assessment and exchange of specific digital competences in both educators and students.<sup>1</sup> Providing a thorough account of the structure, phases and outcomes of the project, the text is meant to serve as guidelines for good practices implementation in teaching and assessing Foreign and Second language.

DILECTINGS features an online, open and flexible education approach towards the achievement, assessment and exchange of DLL and LDR skills, scaffolded by innovative pedagogies and approaches and supported by up-todate technologies, like online modules and tools, to foster the engagement of learners and teachers, and promote an effective learner experience in a Personal Learning Environment.

The project stems from the awareness that in education contexts "with widespread access to reading resources and various forms of reading, the con-

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<sup>&</sup>lt;sup>1</sup> The project platform is accessible at https://DILECTINGS.uniroma3.it/, along with the *Conceptual Framework for achievement, assessment and exchange of Digital Literature Literacy and Literature Digital Reading Skills*. Some of the results of the project, inhering different aspects investigated, have already been published. See:

<sup>-</sup> Canals-Botines Mireia, Alonso Angel Raluy (2023). Digital Literature Literacy (DLL) and Literature Digital Reading (LDR) in European schools / Alfabetización Literaria Digital (DLL) y Lectura Digital de Literatura (LDR) en las escuelas europeas. TECHNO REVIEW - International Technology Science and Society Review / Revista Internacional de Tecnología Ciencia y Sociedad, pp. 2-9 https://doi.org/10.37467/revtechno.v13.4810.

<sup>–</sup> Canals-Botines Mireia, Alonso Angel Raluy, Kohut Iryna (2022). DILECTINGS as a project of the contemporary tool for teacher's digital literature educational competences, Збірник наукових праць № 38 (2), 2022, p. 20-23 DOI: 10.28925/2311–2409.2022.38.

Agrusti Francesco, Leproni Raffaella (2023). Digital Literature Educational Competences for Teachers: Intercultural Inclusive Good-practices for Second-language learning. *CADMO, Ricerche in corso – Research in progress*, 2023, 1, pp. 92-98.

<sup>[</sup>Please note: all websites cited in this section have been last accessed on 31st August 2024]

cept of reading nowadays may be different from what it once was" (Liaw and English, 2017, 62). Digital reading practices have reshaped the very concept of reading; significantly, "as the internet provides far-reaching and instantaneous interactivity, researchers and educators increasingly rely on sociocultural approach" (ibidem). Given that digital instruments change the dynamic relationship between reader, text, and factors influencing the reading process and hence comprehension, the education systems need updated and available tools and structures to help teachers (and learners) to cope with the implications of digital texts fruition in the pedagogy of reading, especially in multilingual situations; it therefore becomes compelling to "reinforce teachers'/educators' skills, knowledge, and self/other assessment abilities, by supporting them during their teaching traineeship and by providing them with frequent opportunities for confrontation, in a lifelong learning perspective" (Leproni, 2020).

#### 1. Why Digital Literature and Literature Digital Reading to teach Fl/L2?

Considering that "[t]echnology has become an [undisputed and] integral part to the ways that most language learners in the world today access materials in their second and foreign language, interact with others, learn in and out the classroom, and take many language tests" (Chapelle and Sauro, 2017, 1; see infra, chapter 3), both teachers and students need guidelines and support to apply digital reading (reading texts from the technological apparatus such as the screen of smart phones, tablets, or computers either online or offline) to literature so as to enhance the teaching of reading; the priority would then lie in enabling teachers to cope with both language and literature by reading with digital tools, fostering intercultural understanding and social inclusion, and allowing them and their pupils to develop and consolidate ICT competences and skills (see Council of Europe key competences framework). These lines of inquiry intersect the main issue of the making of the readers, and of what feeds and shapes their imaginary, their capacity of making hypothesis, predicting, figuring the world from a different perspective, imagining, but also decoding their actual context and expanding their learning and competences.

The European Council Recommendation of 18<sup>th</sup> December 2006 (2006/962/CE)<sup>2</sup> emphasizes the importance of eight key-competences essential for lifelong learning, with language competences being crucial for inclusivity. In several European countries, a significant portion of native-speaking children lack communicative proficiency in English, while on the other hand, the cradle tongue

<sup>&</sup>lt;sup>2</sup> The Recommendation (available at https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=CELEX%3A32006H0962) has been revisited and republished in 2018, see Council Recommendation of 22 May 2018 on key competences for lifelong learning (2018/C 189/01), available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.C\_.2018.189.01.0001.01.ENG&toc=OJ:C:2018:189:TOC.

of non-native-speaking children who attend regular school is seldom English, and when these pupils are native speakers of other languages, they are generally not proficient in English.<sup>3</sup> This linguistic diversity presents both challenges and opportunities. ESL (English as a Second Language) / EFL (English as a Foreign Language) lessons can be used as a privileged moment to create an inclusive school environment, where students share a similar level of non-competence, reducing defensiveness and fostering personal and social development (Leproni 2020).

In this perspective, in a context of an integrated multicultural society as the EU, Digital Literature and Literature Digital Reading have acquired a primary relevance for both foreign language (FL) and second language (L2) teachers and their learners: as a matter of fact, "technology has added multifaceted new dimensions to [both] teaching and learning, which include new ways of teaching every aspect of language, new pedagogical and assessment approaches, as well as new ways of conceiving and conducting research development" (Chapelle and Sauro, 2017, 1).

Digital Literature, hence understood as a system of culturally significant and authentic materials, encompasses a wide range of engaging and interactive narrative forms disseminated through digital media. This includes not only the traditional language of books but also extends to films, web pages, radio, and other multimedia formats, thereby broadening the scope of how stories and cultural content are communicated in the digital age (Hayles, 2008; Ryan, 2015). Such an evolving concept of reading, reshaped by digital practices, has proven especially effective in Second Language Acquisition (SLA), though selecting appropriate technologies for teaching remains a challenge.<sup>4</sup> With the

<sup>&</sup>lt;sup>3</sup> For reference, see:

<sup>-</sup> European Commission (Eurydice). Key Data on Teaching Languages at School in Europe – 2017 Edition. Eurydice Report, 2017. The report provides an overview of language teaching and learning across Europe, highlighting challenges in language proficiency among native and non-native speakers in various countries; it discusses the disparity in language competence, particularly in English, among students from different linguistic backgrounds.

European Commission (Eurydice). Integrating Students from Migrant Backgrounds into Schools in Europe: National Policies and Measures. Eurydice Report, 2019, which focuses on the integration of migrant students into European schools, particularly on language learning and the challenges faced by non-native speakers. The report discusses how the lack of English proficiency can impact educational outcomes for students from diverse linguistic backgrounds.
 PISA (Programme for International Student Assessment). PISA 2018 Results (Volume II): Where

<sup>–</sup> PISA (Programme for International Student Assessment). PISA 2018 Results (Volume II): Where All Students Can Succeed. OECD, 2019. This volume of the PISA report highlights disparities in educational performance, including language proficiency, among students from different linguistic backgrounds. It provides data on the challenges faced by non-native speakers in European countries, particularly in achieving proficiency in English.

<sup>-</sup> Council of Europe. Common European Framework of Reference for Languages: Learning, Teaching, Assessment – Companion Volume. Council of Europe Publishing, 2020. This publication outlines the standards for language learning and assessment in Europe, emphasizing the importance of language proficiency for active citizenship and discussing the challenges faced by both native and non-native speakers in achieving communicative competence in English.

<sup>&</sup>lt;sup>4</sup> Over the last years several contributions have attempted to provide a guide to the various possibilities new technologies offer. See Stockwell 2007; Levy 2009; Golonka et al. 2014.

integration of visual, auditory, and interactive features, reading has become a dynamic and eclectic experience, which is essential for developing effective learning strategies, including those aimed at SLA. However, despite the increasing appeal of studying digital literature's impact on students' reading habits, this area remains under-researched (Carioli, 2015). Though much has been produced about digital skills enhancement, digital storytelling, and digital tools to foster language competences, not much is available as regards Digital Literature for SL/FL teaching. School Education Gateway, for instance, features some courses in the Teachers' Academy space, while the eTwinning platform has few projects available on the topic (browsing the platform by the search button using "digital literature" as key) at the date of publishing of this book.<sup>5</sup>

In line with these educational challenges, the DILECTINGS project's research and outputs seek to promote and expand Digital Literature Literacy (DLL) and Literature Digital Reading (LDR) skills in European schools by enhancing the digital competences of both educators and students. In alignment with the Bologna Process, Open Education principles, the Council of Europe's recommendations on strategic competences for lifelong learning, the Council Conclusions on European Teachers and Trainers for the Future (May 2020), the European Commission's Communication on Achieving the European Education Area by 2025, and the Commission's Digital Education Action Plan (2021-2027), the main purpose of the project is to implement sustainable infrastructures, resources, tools and guidelines that not only promote digital literature in schools but also enhance ICT skills, as well as reading, language, cultural competences, and inclusion at the primary and lower-secondary levels among native and Foreign/Second Language students across various European countries. DILECTINGS' objective is twofold: to help teachers embed DLL and LDR in their teaching by providing training, appropriate materials and stimulating school partners, and to enhance inclusive attitudes in pupils through DLL and LDR, fostering at the same time second/multi language learning and intercultural attitudes within the umbrella of a reading project.

#### 2. Tools and strategies responding to target needs

During and after the Covid-19 lockdown, teachers have looked for new strategies and tools to face distance learning, which could motivate their pupils in spending time in front of a screen, while keeping them motivated and proactive. At the same time, they have expressed concerns about their own skills in managing digital resources, as many had not been previously trained and did

<sup>&</sup>lt;sup>5</sup> Most of the relevant courses and project retrieved date to August 2024. The projects are generally aimed at 12+ y.o. pupils. Many of the 11330 in the preceding year only tackle literature as a topic or strategy, but do not deal with Digital Literature, Digital Literature Literacy, and/or Literature Digital Reading.

not know which sort of tools could be more adequate to their didactic needs (Leproni, Canals-Botines, Tonner-Saunders, 2021). This eBook attempts to provide pedagogical guidelines for educators who wish to implement DILECTINGS' materials in their classrooms, aiming to help teachers, especially language teachers, to take their first steps into digital reading and to find resources to motivate their students in class towards intercultural awareness by building an inclusive environment. The teacher toolkit will therefore include: pedagogical advice on how to embed digital reading projects in the EFL classroom; interviews with students and teachers on how to use the platform; a compilation of digital reading materials; students' samples from participating schools.

As will be detailed in the following chapters, the Higher Institutions involved in the project (Università degli Studi Roma Tre, Italy [R3]; University of Vic – Central University of Catalonia [UVIC], Spain; West University Timişoara, Romania [WUT]; Learnovate-Trinity College Dublin, Ireland [TCD]) have developed a Literature Review on the topics of Digital Literature (DL) and Literature Digital Reading (LDR) (chapter 1),<sup>6</sup> which formed the basis for the pedagogical guidelines presented here. The research work resulted in a Conceptual Framework providing a sound basis for the development of an online platform featuring a Moodle course<sup>7</sup> (which rationale and structure are

<sup>&</sup>lt;sup>6</sup> The literature review made by UVic-UCC has been based on an overview of the state-of-the-art regarding the use of DL and LDR in SL/FL teaching starting from previous projects, case studies and research studies, as well as an overview of the state-of-the art of DLL Educational Practices, through which schools extend their educational offer using new technologies for reading including current projects, case studies and research studies. The literature study, carried out on the basis of a systematic review conducted by Roma Tre unit, is grounded on a selection of 50 research articles on digital literature and digital literature for primary and secondary students and/or teachers, to provide an insight on the most relevant international journals on digital literature and digital literature for primary and secondary students and/or teachers.

<sup>&</sup>lt;sup>7</sup> Both the Framework and the course are available at the project's page: https://DILECTINGS.uniroma3.it/. Under the coordination of Roma Tre University, the project partners have collaborated to build a distance education platform based on Moodle, designed to connect teachers, students, and schools, and aiming at functioning as a central reference point for Digital Language Learning (DLL) and Digital Reading (DR), to facilitate the sharing of practices, the exchange of experiences between participating universities and schools, and the collection of data on how digital literature can help raise children's cultural awareness, enhance language skills, and promote inclusion.

The platform is organized into modules that allow for independent, self-paced use, and it includes a forum where participants can exchange knowledge, resources, and strategies. It has been designed to ensure a seamless mobile experience, aligning with research findings (see Wu et al., 2012); it automatically adapts its graphical and textual content for use on mobile devices, providing educators, instructors, and students with a consistent and smooth learning experience, even for those who may need to access it while commuting. Among its features are the ability to access learning materials offline, submit quizzes and assignments, connect with fellow students or lecturers, track grades, and receive real-time notifications, all through the widely-used open-source Moodle Learning Management System (LMS). Additionally, the platform incorporates H5P, an open-source software framework that integrates with Moodle 3.8 to offer a suite of multimedia tools to create highly interactive content, such as quizzes, games, videos, and drag-and-drop activities, enriching the learning experience. These interactive course materials, tailored for teaching DLL, can be exported and uploaded

described in chapter 2) aimed to allow both school pre-service and in-service teachers to work on Digital Literature Literacy (DLL) and Literature Digital Reading (LDR). The outcomes of the piloting of the course tested on the partner schools of DILECTINGS (Istituto Comprensivo "Vitruvio Pollione", Formia, Italy; Institut Miquel Martí I Pol, Roda de Ter, Spain; Colegiul National de Arta "Ion Vidu", Timişoara, Romania; The King's Hospital School, Dublin, Ireland) and the eTwinning project they developed consequently with their classes are accounted for in chapters 3 and 4,<sup>8</sup> with an extensive discussion on the practical aspects that may serve pre- and in-service language teachers in tackling similar topics and strategies in their own teaching. Chapter 5 delves into the description of the Toolkit created to scaffold teachers in developing

The monitoring process concentrated on tracking the participants' engagement with the platform, specifically focusing on the completion of modules, quizzes answered, assignments submitted, and the time spent on these tasks as recorded by the system. Having studied the structure of each module in advance, WUT team sought to clarify the assessment methods used by each project partner, while assisting the participants in navigating the pre-established assessment documents. Ease of access to the modules was ensured and help with any non-specialized technical issues provided. In addition, regular checks were performed on the participants' reports generated by the platform.

The chapter concludes with an analysis of the post-training questionnaire, which includes an evaluation of the trainees' feedback regarding their learning experiences on the DILECTINGS platform.

The eTwinning project "Be Whatever You Want, Become Whoever You Are" developed by the four partner schools guided students to think about the themes of diversity and inclusion whilst enhancing their reading and comprehension skills in their second language. The novel "Wonder" by R.J. Palacio was chosen as the central text for the project and a series of tasks and activities aimed at building students' confidence in their L2 were constructed around the themes of the novel. The project further encouraged students to use a variety of digital tools to support their second-language acquisition. The working L2 languages of the eTwinning project were English and French and the students taking part ranged in age from 8 to 14. The project's activities were structured into several steps, where students contributed to a collaborative Padlet to introduce themselves in their L2, practicing their reading comprehension and writing skills; they scripted, recorded and edited videos about their schools, which were then shared and discussed in class, allowing students to compare and contrast their schools and cultures with those of their partners. They expressed their impressions on the adapted version of "Wonder" and brainstormed the film's themes. Each school became an expert on a particular topic related to the text. The project culminated in creative writing activities based on the assigned themes. Students involved in the project have developed understanding and acceptance in a fascinating and ingenious way whilst also building their communicative confidence in their L2 and working on their digital literacy.

to the platforms of the schools participating in the project. Furthermore, teachers could import the materials they create into the eTwinning project platform, ensuring that DILECTINGS remains a sustainable and long-lasting resource.

<sup>&</sup>lt;sup>8</sup> The West University of Timişoara (WUT) was in charge of monitoring the online training activities conducted on the project platform, which was structured around eight modules, created and implemented by each university partner – Università degli Studi Roma Tre (R3, Italy), Fundación Universitaria Balmes (University of Vic – UVIC, Spain), Universitatea de Vest din Timişoara (WUT, Romania), and Trinity College Dublin (TCD, Ireland). WUT unit monitored the trainees' learning activities and traced the progression of the digital training process. Chapter 3 examines the general platform activities of the trainees and how they approached specific exercises, detailing the tools employed by the WUT team to ensure an objective evaluation of participants' activities, including the creation of a digital training questionnaire.

awareness of their own DLL and LDR competences, so to help them implement such skill in their lesson plans.<sup>9</sup>

The project pedagogical target is intended for both L2 teachers (direct target) and their learners (indirect target); the target groups and their needs have been identified on the basis of a need analysis carried out prior to the project's start, through a survey disseminated in the four partner countries:

- School Teachers: teachers should be enabled to choose the learning outcomes they wish to achieve, as well as the means they intend to employ to develop and assess teaching and learning focusing on identifying potential barriers to both learning and valid assessment, such as: the reading levels within and across texts and other materials which may interfere with understanding of, or attention to, the concepts being taught; words and concepts that will be socio-culturally unfamiliar to pupils; forms of bias in the portrayal of people from diverse groups, such as racism, classism, ableism, and sexism (García and Tyler 2010: 117). They need adequate training and tools to acquire/enhance their competences on the content, language, format, materials and strategies they need to cope with the different kinds of learners in their classes.
- Pupils: Some studies claim that when children are exposed to multiple cultures at an early age, they are more likely to be inclusive and aware in their environment.<sup>10</sup> Nonetheless, this attitude may wane if not specifically supported by school practices and this is why DLL and LDR could help to increase the motivation of students towards interculturality and foreign language learning through a personalized reading experience within their school curriculum, fostering inclusion.
- Schools: schools should provide an inclusive environment, to grant all pupils equal opportunities. Second language and digital competences

<sup>&</sup>lt;sup>9</sup> The Dilectings Toolkit, a digital platform designed specifically to enhance Digital Literature Literacy (DLL) and Literature Digital Reading (LDR) among primary and post-primary school teachers in European schools, aligns its features with the principles of Communities of Practice (CoPs). The toolkit fosters a collaborative and supportive environment conducive to professional development and pedagogical improvement in the area of DLL and LDR for teachers. Chapter 5 describes the toolkit's functionalities and their relation to established educational research on CoPs, following a comprehensive learning science-based approach to assess their current skill levels and provide them support with learning and exchanging skills along with planning their daily activities e.g. lesson plans. <sup>10</sup> See for instance:

Barrett, M., & Buchanan-Barrow, E. (2005). Children's Understanding of Society: Culture and Cognition in a Changing World. Psychology Press.

 <sup>–</sup> Jordan Irvine, Jacqueline (2003). Educating Teachers for Diversity: Seeing With a Cultural Eye. Teachers College Pr.

Catarci, Marco, Fiorucci, Massimiliano (eds.) (2015). Intercultural Education in the European Context. Theories, Experiences, Challenges, Ashgate.

<sup>–</sup> Pratiwi, Hardiyanti, Haida, Rizki Noor, Minasyan, Agus Riwanda, Sona (2023). Pre-Service Ece Teachers' Experiences in Implementing Multicultural Education. *Analisa, Vol 8, No 2* (2023) DOI: https://doi.org/10.18784/analisa.v8i2.2064.

should be adequately fostered systematically, and topics as gender and learning difficulties focused on, to promote gender equality and learning equity among teachers and children. DILECTINGS provides opportunities to develop such skills, empowering schools to equip with some necessary tools to enhance them sustainably, as they can benefit of the shareable results of a European reading project promoting the exchange of best practices and the development of further joint projects.

– Universities: The importance of literature is somehow underrated in many teaching training institutions (Stan, 2020); this project underlines and emphasizes the role of literature – especially digital – as a powerful tool to provide language models and authentic cultural information<sup>11</sup>; it also provides tools to offer behavioural models that may contribute to learners' personal fulfilment.

DILECTINGS wishes to contribute to making the school a place more open to innovation and to empower teachers to be at the head of change. Children are the main target of the project, which stresses the importance of online literacy to encourage intercultural and inclusive attitudes towards diversity. They will experience multimedia tools, new approaches to language learning and examples of interculturality. Schools will have the possibility to implement innovative practices to enhance integration and emerging academic skills such as e-competences to provide professional development for their practitioners. This will also raise the school's profile and make them gain visibility in the local community.

#### 3. Language, ICT, inclusion in a community of practice

DILECTINGS manifold structure is built to help bridging intercultural, intergenerational and social divide while integrating the reaching and learning of foreign languages with digital skills and competences.

The project investigates upon the possible use of technologies to implement Digital Literature teaching for Second/Foreign Language Acquisition in primary and lower-secondary schools, providing a multicultural approach inherent within the very idea of digital texts and constitutive of the EU. Indeed, as afore mentioned, creating an inclusive community was a primary goal in the process of European integration from its start and may well have contributed to making social inclusion one of the eleven priorities for Cohesion Policy (2014-2020) within the Europe 2020 Strategy and the 2030 Agenda. At the same time, DILECTINGS intends to foster language awareness, as the acqui-

<sup>&</sup>lt;sup>11</sup> Rahimipour (2019) underlines how literature can help promoting critical thinking skills, encouraging creativity and imagination, triggering students to reflect on their own experiences and emotions, providing a safe space to explore complex topics and feelings, and allowing them to plunge into different cultures and perspectives.

sition of different languages among the EU parallels with the acknowledgement of the richness brought along by cultural diversity, represented and shared in literature texts. In this respect, SEN children difficulties come to the fore in particular when dealing with linguistic skills like reading and writing, sometimes even listening and speaking; in more serious cases, their struggles can be increased by comorbidity (Tressoldi and Vio, 2006; Kormos, 2016). The advantage of an ICT approach to these topics may allow teachers to improve their own and their pupils' technological skills while fostering FL/SL skills and building an inclusive, participative environment in the classroom.

In the 21<sup>st</sup> century digital world, students and teachers must learn how to be digital creators and beneficiaries; the project partners strongly believe that the use of ICT and, particularly of Digital Literature, is an excellent tool to enhance language learning, promote interculturality and enhance key-competences, equity and equality: teachers need to embrace new digital media and revise contents accordingly to help students realize the full educational potential of technologies. Moreover, build lasting cooperation bonds between training institutions and schools is primary as to generate conditions to foster teachers' performance at school and at university level. The project aims to establish a sustainable multifaceted intervention program (technology, didactics and training) that makes the most of digital learning environments.

School Education Gateway, eTwinning and Erasmus+ Projects Results Platform have been at the core of the design of the project for preparation, implementation and follow-up, All partners involved in DILECTINGS firmly believe in the pivotal role of eTwinning to establish and consolidate bonds among the participating schools; eTwinning has been used among the school partners as a common ground of exchanging methodologies, mutual knowledge and joint strategies, allowing partner teachers and children to showcase the project results and increase their visibility as prospective partners for future project. It also provides a great opportunity to disseminate research outcomes and best practices at a European level, making outcomes available open-access for the wider community of practice.

#### 4. Resources and impact – so far (hoping to improve with your help!)

The impact of DILECTINGS, emerging from the expected deliverables (project results, training activity, multiplier event, resources, learning platform), as well as from the dissemination and the collaborative networking activities that may help produce cumulative changes on the long-term, can be summarised in a meaningful increase in different areas:

- increased awareness of Digital Literature Literacy and Literature Digital Reading Skills in European teachers and learners;
- increased awareness of second and foreign language learning role in fostering interculturality and inclusion;

- increased readiness and confidence of educators and students to participate in and implement DLL, LDR, and technological Skill.

Using the resources proposed in DILECTINGS can be highly engaging for learners: children will improve their capacity to approach second language learning through DL and LDR, while teachers will be trained to use digital resources to promote DLL and to develop innovative intercultural and inclusive practices, and practitioners will be able to access content, strategies and resources to implement DLL and LDR in their classes. The strategies proposed in the modules and the tools created taking into consideration the ideas and comments of the stakeholders involved allowed developing creative e-learning, communicating and sharing experiences with peers (teachers and children) from other European countries, improving the development of literacy. The encouragement in the use of language to reflect on values and beliefs also promoted opportunities to develop intercultural, inclusive attitudes while practising different languages.

DILECTINGS was conceived to create a significant impact across various levels—regional, national, and European. At the regional level, the project seeks to catalyse conversations on the role of Digital Literature in fostering interculturality and inclusion through second language learning. By opening discussion forums, raising awareness about the integration of technology for inclusion, and sharing best practices, DILECTINGS endeavours to engage the educational community through targeted launch events. Moreover, the project aspires to influence policy by encouraging regional school boards to incorporate the concept of "Care" into the school curriculum. On a national scale, DILECTINGS aims to shift perspectives on the potential of Digital Literature Literacy to create inclusive, intercultural education environments. It also seeks to introduce new curriculum ideas, particularly in second language learning, and to involve teachers' professional associations by providing training that highlights Digital Literature as a powerful tool for teaching languages within diverse and inclusive contexts. At the European level, the project intends to enhance collaboration among educational institutions by sharing best practices and improving networking efforts; this includes fostering stronger interactions that lead to the implementation of validated, in-field practices across different countries. Additionally, DILECTINGS aims to increase coordination between policies and programs while stimulating discussions on educational development and pedagogical innovations, particularly in relation to the interplay between languages, cultures, and inclusion. Through these multi-level efforts, DILECTINGS aspires to create lasting changes in educational environments by integrating Digital Literature as a key component of intercultural and inclusive education.

Organisations participating in DILECTINGS have highly benefited of sharing knowledge and best practices to develop and implement innovative approaches to integrate Digital Literature in education, broadening their understanding of educational policies and systems across Europe; they also had the opportunity to increase their resources to carry out intercultural, inclusivity-oriented projects in education by networking with other schools and universities interested in Second language learning to foster interculturality and inclusion, and being part of online virtual exchange activities (eTwinning for schools and the learning platform for universities).

The same benefits are now openly accessible to pre-/in-service teachers, schools, young learners, and higher institutions. As the project has promoted (and wishes to foster) international cooperation among educators in their everyday teaching through co-creation of materials and participation in joint workshops, through DILECTINGS' resources teachers may gain more insight into how DL can be implemented to mainstream students, educators will be given the opportunity to share their best practices with other colleagues from different countries and network to work on the benefits of DL for Second Language learning, interculturality and inclusion, offering better learning opportunities to young and very young learners also from disadvantaged backgrounds; practitioners will also acquire intercultural and technological skills in the area of education and they will have access to increased opportunities for internationalization via online collaboration (i.e. eTwinning projects).

In perspective, we hope that the resources created, especially the Learning Hub for the continuous development, assessment and recognition of DLL and LDR Skills, these guidelines, and the Toolkit developed will be more and more widespread among the eTwinning and School Education Gateway community.

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Literature Review and Pedagogical Guidelines

This chapter is divided into sections. On the one hand, a literature review is carried out to guide the development of the entire project and fix a conceptual framework. On the other, the pedagogical guidelines are established, which intend to offer a framework for educators to understand and apply the teaching materials in the foreign language classroom while promoting responsible digital citizenship and enhancing digital literacy skills.

#### 1. Literature review

The literature review of this project has been made based on an overview of the state-of-the-art regarding the use of DL and LDR in SL/FL teaching starting from previous projects, case studies and research studies, as well as an overview of the state-of-the art of DLL Educational Practices, through which schools extend their educational offer using new technologies for reading including current projects, case studies and research studies. The literature study is grounded on a selection of 50 research articles on digital literature and digital literature for primary and secondary students and/or teachers. The research has been conducted through the UVic-UCC Library (Campus Virtual – Biblioteca-CercaTot – Search "Digital Literature" – CCUP/PUC – Online Library). All references have been edited by first line journals (Scopus and ISI) or book chapters published by first line Publishing Houses such as Routledge, Thomson and Reuters, Peter Lang, Palgrave, Bloomsbury, etc. We have used the APA7 Style.

This first section is divided into three subsections. First, a selection of 25 relevant international journals on digital literature and digital literature for primary and secondary students and/or teachers is provided. Second, 35 complete references of the most recent articles on the studied subject are made available. Finally, 12 key ideas on digital reading and writing extracted from the articles revised are offered.

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<sup>&</sup>lt;sup>1</sup> This chapter was supported by the Dipartimento di Scienze della Formazione, Università degli Studi Roma TRE (Italy), the leading partner of DILECTINGS.

1.1 A selection of twenty-five relevant international journals on digital literature

This subsection aims at providing a selection of the most relevant international journals on digital literature in general and digital literature that have published articles on primary and secondary students and/or teachers:

- Digital Scholarship in the Humanities
- Education and Information Technologies
- E-Learning and Digital Media
- English in Education
- International Electronic Journal of Elementary Education
- International Journal of Computer-Assisted Language Learning and Teaching
- International Journal of Educational Research
- International Journal of Education and Practice
- International Journal of Emerging Technologies in Learning
- International Journal of Emotional Education
- International Journal Ěnvironmental Research Public Health
- Internet Policy Review
- Journal of Computer Education
- Journal of Digital Life and Learning
- Journal Medical Internet Researchers
- Journal of Prevention & Intervention in the Community
- Journal of Research in Reading
- Language, Speech, and Hearing Services in Schools
- New Media & Society
- Pedagogy
- Research on Education and Psychology (REP)
- Revista on line de politica e gestao educacional
- Social Science Quarterly
- Technology, Pedagogy and Education
- World Wide Journal of Multidisciplinary Research and Development

#### 1.2 Thirty-five complete references

This subsection makes available a selection of 35 complete references from the journals below with the most recent articles on the studied subject:

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#### 1.3 Twelve key ideas on digital reading and writing

This subsection summarizes 12 key ideas on digital reading and writing from the references below:

- Current scientific research shows the prevalence of various means of using the digital literature and technology in children's, adolescents' and adults' reading, writing, word processing skills development. The advantage of using digital literature is its compliance with the needs and trends of modern youth to use gadgets and the expanded functionality of such methods – the ability to make notes in the text, organize interactive processing of material, create data sets and presentations. Moreover, the use of special programs and digital literature databases facilitates the search for literature, its systematization and sorting (Haddock A., Ward N., Yu R. & O'Dea N, 2022).
- 2) The use of special digital programs and videos is more interesting and acceptable for children and adolescents, as it implements didactic tasks and development of characteristics in cyberspace with the inclusion of the subject in an interactive multimedia system. At the same time, the child or adolescent does not just read and work in this way: the task and educational and developmental activities acquire signs of interactivity, where the child is an active actor in this space (Haddock A., Ward N., Yu R. & O'Dea N, 2022).
- 3) The advantage of digital reading and application of programs (the use of video, chat, correspondence, filling out interactive questionnaires and spreadsheets) is interesting for subjects of educational activities because is implemented in their typical network communication and interaction (Haddock A., Ward N., Yu R. & O'Dea N, 2022). The range of tasks aimed at these technologies is diverse, including improving reading skills, word processing, understanding their content, developing emotional intelligence and personal attitude to the material that is read (D'Amico, 2018).
- 4) The range of the latest methodological developments in the field of technology and digital literature is quite wide and diverse. In particular, the use of digital technologies promotes the development of children's emotional intelligence through the use of an special program "Developing Emotional Intelligence", which allows children to develop skills of interpreting and provoking emotions (D'Amico, 2018).
- 5) Of particular importance are the use of up-to-date mobile and computer applications aimed at developing digital text processing and interpretation skills. In particular, the Digital Competence Profiler (DCP) (Blay-

one, Mykhailenko, van Oostveen, & Barber, 2018) is effective, which allows its users to assess the specifics of their developed digital skills, or Learning International Study (TALIS), which suggests the impact of the educational environment on the development of skills in working with texts of subjects through the use of technology (Gil-Flores, Rodríguez-Santero, & Torres-Gordillo, 2017).

- 6) Current research presents the latest developments in the formation of reading skills and work with texts, focusing on the ability of program users to enter the database of digital literature. These include the work of children in the Australian Newspaper Fiction Database (Davies, Bode, Martin, & Sawyer, 2020), where children have access to a literature database and the use of interactive word processing technologies. This group of developments also includes Delight Games (Hall, 2020): this is an application that enables digital reading of literature and text processing, interaction through the application with the developer.
- 7) A separate area of development is the technology aimed at the actual formation of skills and abilities in the process of working with digital literature. For example, such technologies can also include the digital health literacy instrument (DHLI) (Park & Kwon, 2021), which allows children to assess the parameters of their use of gadgets.
- 8) The use of technologies aimed at setting up communication between a child and an adult in the process of digital reading and networking is also important. These include, for example, the Kids Online framework (Cabello-Hutt, Cabello, & Claro, 2018).
- 9) A separate area of development is to improve the competence of teachers in digital technology in the development of reading skills and work with literature. Particularly Technological Pedagogical Content Knowledge (TPACK) technology reflects the set of competencies of modern teachers in the implementation of the educational process using digital technologies (Cubeles, & Riu, 2018).
- 10) The benefits of using digital literature are undeniable in the age of informatization of society. Thus, by using ebooks, it is possible to perform actions, such as investigating the text, highlighting, and even interpreting, beyond simply reading and viewing (Karakoç Öztürk, 2021). The main characteristics of ebooks that are effective to students are facilitation, being an information source, accessibility, portability, attractiveness. Digital reading is influenced by parameters of access, attitudes, motivations, and skills that impact academic reading behavior by transforming reading practices, processes, and effects due to varying interfaces and affordances such as multimodal perception or haptics (Kuhn, Schwabe, Boomgarden, Brandl, Stocker, Lauer, Brendel-Kepser, & Krause-Wolters, 2022).
- 11) The use of digital reading has certain limitations that complicate its implementation. Particularly it is about the need to be connected to

the network, the overload of children in physiological terms and the need to have a certain set of digital competencies to work with programs. However, a specific feature of the use of digital reading is the excessive inclusion in the network space, which is a trend of today. It acts as a meta-media that integrates all the communicative processes of the modern world and allows young people to join the information space (Małecka, 2018).

12) To sum up, the benefits of using methods related to digital literature and other programs are beyond doubt, and their effectiveness has been proven by many studies. However, this challenge to science and teaching methods remains relevant. Thus, the need for the development of new methods and technologies for the digital literature and digital programs use in the learning process of children, adolescents and adults is constantly growing and enriching.

#### 2. Pedagogical guidelines

The Erasmus KA2 project "DILECTINGS: Digital Reading in Education" aims to integrate digital literature into European schools to enhance reading skills and revolutionize English as a Foreign Language (EFL) classroom practices. The project promotes Digital Literature Literacy (DLL) and Literature Digital Reading (LDR) skills through an Online, Open & Flexible Education approach, innovative pedagogies, and assessment tools linked to competency frameworks. Project partners include Università degli Studi Roma Tre, West University of Timișoara, Trinity College Dublin, University of Vic-Central University of Catalonia, and four secondary schools from Italy, Spain, Ireland, and Romania.

The project's core is an 8-module e-Learning Moodle course available on the eTwinning/School Education Gateway platform. The course, designed for online, hybrid, or face-to-face teaching, endeavours to develop digital literacy in language learning and foster international collaboration among teachers. Modules cover topics such as digital reading and literacy, hypermedia and hypertext, digital reading strategies, gender and inclusion, digital storytelling, language competencies, assessment strategies, and digital critical literacy. Each module provides theoretical knowledge, practical activities, and tools to support educators in implementing digital reading strategies effectively.

These pedagogical guidelines intend to offer a framework for educators to understand and apply the teaching materials in the foreign language classroom while promoting responsible digital citizenship and enhancing digital literacy skills. By exploring key concepts, creating hypertexts, using digital storytelling tools, and developing assessment methods, the project seeks to improve reading practices and language competencies in the digital age.

#### 2.1 Project Background

Digital literature is an engaging and interactive narrative form delivered via digital media, encompassing the language of books, films, web pages, radio, etc. The "DILECTINGS: Digital Reading in Education" Erasmus KA2 project aims to both implement tools to promote digital literature in schools and to enhance reading skills and to revolutionize reading practices in the EFL classroom by harnessing digital technologies. More particularly, DILECT-INGS intends to promote and scale-up Digital Literature Literacy (DLL) and Literature Digital Reading (LDR) Skills in European schools through:

- An Online, Open & Flexible Education approach that engages the learner thanks to a Personal Learning Environment
- Innovative pedagogies for achievement of DLL and LDR Skills that are based on online modules and tools
- Innovative approaches/technologies for assessment and use of DLL and LDR Skills with links to competency frameworks

In terms of Project Partners, it involves researchers from the following universities:

- Università degli Studi Roma Tre (Italy). Project Coordinator
- West University of Timişoara (Romania). Project Partner
- Trinity College Dublin (Ireland). Project Partner
- University of Vic-Central University of Catalonia (Spain). Project Partner The project also involves 4 secondary education schools:
- Miquel Martí i Pol (Spain)
- The King Hospital and Free School of King Charles the Second (Ireland)
- Istituto Comprensivo Vitruvio Pollione (Italy)
- Colegio National da Arta "Ion Vidu" (Romania)

#### 2.2 Moodle Platform Modules Guidelines

These pedagogical guidelines are designed to provide educators participating in the project with a framework for implementing innovative digital reading strategies in their classrooms. This document intends to support schoolteachers in the process of understanding and implementing the teaching materials and resources that have been created by the Erasmus + project DILECTINGS. The core of the project includes an e-Learning Moodle course that will be available from the eTwinning/School Education Gateway platform. The e-Learning Moodle Course consists of 8 modules that may be used for online, hybrid, or face to face teaching. They aim to promote digital literacy in the area of language learning and provide educators with tools to teach and assess it in the EFL classroom. In addition, the course endeavours to enhance international collaboration among in-service teachers. It is planned for 60 hours following this suggested timeline:

Module 1: Introduction	to Digital Reading	& Literacy: How	<sup>,</sup> we read today
(5 hours)	0 0	•	

- Module 2: Hypermedia and Hypertext: plain text, graphics, photographs, (artistic) images, symbols and hyperlinks (5 hours)
- Module 3: Digital Reading strategies & Narrative Structures for Digital Writing (10 hours)
- Module 4: Gender, Minorities and Inclusion (10 hours)
- Module 5: Creating Digital Stories: story writing toolkit for teachers (5 hours)
- Module 6: Fostering and Assessing Language Competences through DL & LDR (10 hours)
- Module 7: Assessment & Digital Strategies (5 hours)

Module 8: Developing Digital Critical Literacy (10 hours)

With regards to content and goals, the eLearning course may be outlined as follows:

MODULE 1: INTRODUCTION TO DIGITAL READING & LITERACY: HOW WE READ TODAY

This first module will give trainees an understanding of key concepts in digital literacy and they will be introduced to the skills needed to help learners engage with the digital world in a responsible and effective manner. This module will also draw on the participants' digital experiences to explore the role of digital technologies in reading. Its main goals are:

- Provide background knowledge about digital literature reading/literacy
- Introduce key theoretical topics
- Promote responsible digital citizenship
- Define digital literature literacy
- Explore your digital-self

MODULE 2: HYPERMEDIA AND HYPERTEXT: PLAIN TEXT, GRAPHICS, PHO-TOGRAPHS, (ARTISTIC) IMAGES, SYMBOLS AND HYPERLINKS

This module will help participants understand the differences between hypermedia and hypertext in terms of directionality, structure and interactivity. The module will also delve into the role of online reading paths and their associated metacognitive strategies. This section will examine the pedagogical use of graphics, and audio/video resources to create multimedia reading activities. Its main goals are:

- Define the concepts of Hypermedia and Hypertext
- Understand the role of directionality, structure and interactivity in digital reading
- Describe patterns of metacognitive strategies in digital literacy

- Enhance Hypermedia and Hypertext reading pathways

- Create Hypertexts for language learning

Module 3: Digital Reading strategies & Narrative Structures for Digital Writing

This module is focused on digital reading strategies and on narrative structures for digital writing. You will broaden your understanding of the foundational concepts of digital reading and narrative structures to support your students in those areas. In addition, you will provide students with strategies to improve their performance when reading digitally. Its main goals are:

- Explore the differences between traditional and digital reading
- Train students on how to read in digital space
- Provide reading strategies for online close/interactive and social reading
- Make reading a social experience
- Highlight the benefits of using digital content
- Create pedagogical guidelines for well-designed digital content

MODULE 4: GENDER, MINORITIES AND INCLUSION

This module is focused on gender, minorities and inclusion in digital reading and digital writing. As well as practicing different activities, you will broaden your understanding of the foundational concepts of gender, minorities and inclusion to support your students in those areas. First of all, in order to try to achieve a genuine canonical equality, you will provide students with activities to improve their knowledge on women's legacy in literature and pedagogy when reading and writing digitally. Secondly, you will find activities on minority, inclusion and education. These include revision of concepts, and reflections on personal and educational practices. Its main goals are:

- Explore the concepts of gender, minorities and inclusion
- Get to know more about women's legacy in literature and pedagogy
- Connect acquired knowledge on gender and inclusion to teacher's beliefs
- Suggest educational practices to broaden the learners' horizon on inclusion

Module 5: Creating Digital Stories: story writing toolkit for teachers

This module examines forms of digital storytelling in the context of interactive narrative. The course will help teachers create a digital story by providing technological tools that can be used to teach language and literature. Contemporary applications will be demonstrated together with narrative theory to assist participants in their plot and character development. Its main goals are:

- Approach new computer-based tasks with greater confidence
- Introduce the concept of digital storytelling
- Introduce the role of narrative theory in story development
- Explore multiform narrative structures and conventions
- Locate, open and use software applications for digital storytelling
- Prepare pedagogical guidelines for digital storytelling in the classroom

Module 6: Fostering and Assessing Language Competences through DL & LDR

Developed according to the guidelines drawn from the DL/LDR literature review and the Survey conducted as first steps of the research project and repurposed on Second Language Teaching and Assessment strategies and tools, this module will introduce trainees to applying the key concepts in digital literature and digital reading literacy to the teaching and assessing of a second/foreign language. Its main goals are:

- Develop an insight into how to apply DL and LDR to L2/SL teaching and learning
- Develop an awareness of the pupils' needs when fostering DL and LDR in the classroom
- Develop an awareness of the pupils' skills fostered by DL and LDR in L2/L learning
- Enhance assessment strategies related to DL and LDR in L2/SI teaching and learning
- Gain confidence in the teachers' capabilities in using DL and LDR

MODULE 7: ASSESSMENT & DIGITAL STRATEGIES

This module endeavors to help practitioners both reflect on and assess their digital literacy skills. Through a series of tasks, the module aims to initiate reflection and to provide teachers with criteria to select the most appropriate assessment to demonstrate core digital competences. In addition, participants will be able to evaluate the course pathways and their impact and transferability to practice. Its main goals are:

- Examine different types of Digital Literacy skills assessments: self-assessments and inventories; performance- or competency-based assessments
- Present a comprehensive, practical guidebook of digital literacy assessment tools
- Reflect on self-learning and own digital reading skills
- Adapt existing assessment materials to own classroom practice

MODULE 8: DEVELOPING DIGITAL CRITICAL LITERACY

This final module examines ways of developing digital critical awareness. The various tasks ask you to consider different forms of language, from the language of information to the language of persuasion, strategies to identify when you are being persuaded or informed and how the medium of engagement with different genres can impact understanding. Its main goals are:

- Create awareness of function and forms of language
- Enlist strategies to identify texts that inform or persuade
- Collate activities that can be used in the classroom

#### 3. Conclusions

This chapter was divided into different sections. On the one hand, a literature review was carried out to guide the development of the entire project and fix a conceptual framework. On the other hand, the pedagogical guidelines were established, which intend to offer a framework for educators to understand and apply the teaching materials in the foreign language classroom while promoting responsible digital citizenship and enhancing digital literacy skills.

As mentioned above, the first section was divided into three subsections. Firstly, a selection of 25 relevant international journals on digital literature and digital literature for primary and secondary students and/or teachers was provided. Secondly, 35 complete references of the most recent articles on the studied subject were made available. Finally, 12 key ideas on digital reading and writing extracted from the articles revised were offered.

In reference to the pedagogical guidelines, the Erasmus KA2 project "DILECTINGS: Digital Reading in Education" aims to integrate digital literature into European schools to enhance reading skills and revolutionize English as a Foreign Language (EFL) classroom practices. The project's core is an 8-module e-Learning Moodle course available on the eTwinning/School Education Gateway platform. These pedagogical guidelines intend to offer a framework for educators to understand and apply the teaching materials in the foreign language classroom while promoting responsible digital citizenship and enhancing digital literacy skills. By exploring key concepts, creating hypertexts, using digital storytelling tools, and developing assessment methods, the project seeks to improve reading practices and language competencies in the digital age.

The references used to build this chapter are inserted as a text commented by the authors; therefore, no extra 'References' section will be added.

# Chiara Lepri, Francesco Agrusti, Fabio Luppi<sup>\*1</sup>

# Digital Literature and Literature Digital Reading definition and Learning Platform structure

This chapter is divided into three different sections. The first one deals with a preliminary literature review of Digital Literature crucial to understand the general context of DILECTINGS. The second part deals with DILECTINGS platform with a specific view of the reasons why it has been built using Moodle and focusing on its technicalities. The third part provides a general view of the structure and contents of the Moodle Platform built up for DILECTINGS.

#### 1. An Introduction digital literature

#### 1.1 Digital Literature. Towards a definition

In the history of mankind, the transition from orality to writing was a true cultural revolution, which changed the transmission of knowledge, the means of communication, and the very idea of tradition. This transition also brought about an intellectual breakthrough, linked to a new style of mind style? Writing (and its reading) inaugurated language as we think of it, with its rigorous grammar, its defined semantics, its articulated syntax. With writing comes logical, reflective, scientific thinking. And today, we are still immersed in writing, even though communicative modes even though languages and communicative modes (primarily, auditory and iconic) are increasingly expanding and languages are increasingly expanding.

The reality of the polymorphism of communication today requires us to relaunch reading in new forms, without the constraint of the written text of tradition, as a single model, closed on itself and not open to communication and interpretation.

Digital Reading has been pervading our experience as readers for some years now, and not only since e-readers have existed, but since the web has become the pervasive protagonist of our daily experience. In fact, the differences between reading on digital media and on printed paper may not exist since, in any case, we are faced with a succession of words and images arranged in writ-

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<sup>&</sup>lt;sup>1</sup> This chapter has been written by three authors. Chiara Lepri is responsible for paragraphs 2.1.1 and 2.1.2; Francesco Agrusti is responsible for paragraphs 2.2.1, 2.2.2, 23.2.3, 2.2.4 and 2.2.5; Fabio Luppi is responsible for paragraphs 2.3.1, and 2.3.2. The bibliography is in common for all three authors.

ing on any surface. Actually, however, the nature of the medium represents a profound distinction: no medium, in fact, is 'innocent', since there is no real separation between form and content. We must therefore think that as the supports change, the very nature of texts changes, in some way, along with the perception the reader receives of them.

Many of the new literacy skills needed to cope with online reading are based on critical-evaluative and self-regulatory skills that develop later in life and only after many reading experiences.

Becoming proficient readers, therefore, is neither a given nor something to be taken for granted: reading circuits can be shaped and emerge assuming various degrees of depth, among them, levels that utilize only a part of the potential inherent in the act of reading. With the digital text, the potential in terms of creativity, learning and discovery is immense. A book projected in its e-book version on a large screen with a connection can be developed into online insights that allow the reader to explore the author's site, to watch his/her book trailer, to engage in interactive activities that give rise to new literacy practices and nurture the curiosity of young readers. The interest aroused by an online game can lead the reader down a path that connects him or her not only to the text and the explanations for understanding it, but also to relevant historical information, videos on the topic, discussion groups, articles written by literary critics and artistic interpretations that can lead to a broader exploration and reflection on the topic. The digital text is highly manipulable, a feature that makes it potentially more customizable than a printed book and, therefore, more accessible as a learning tool for different learners. The ability to easily change fonts – some of which are optimized for on-screen use – to change their size or colour, for example, are aspects that, while not particularly appealing to most readers, become critical for those with visual impairments. It is possible to use speech syntheses, to highlight words as they are pronounced, to make the connection between written and spoken forms more obvious, to visualize digital words as tactile words through Braille devices. These tools and their functionalities have a largely untapped potential for the intellectual development of users. These tools and their functionalities have largely unexplored potential for users' intellectual development (Carioli, 2014, 105-117).

As Agrusti and Leproni assert, "Digital Literature – literature intended as authentic materials with cultural value – is an engaging and interactive narrative form delivered via digital media, ecompompassing the language of books, films, web pages, radio, etc." (2024, 104).

As younger people's reading activity increasingly takes place in digital form, in order to develop a critical and conscious approach to digital literary content in the younger generation, it is necessary to promote good digital literature and its reflective and deep reading.

As a matter of fact, in a more and more multicultural European context, where different linguistic and cultural backgrounds are supposed to merge into an equitable community, schools need to foster new competences and skills to match the request of technological, educational, cultural and social changes, while facing a plurality of socioeconomic situations of potential risk to cope with, and aiming to involve learners regardless of their talent, disability, language or cultural origin. Additionally, the Covid-19 emergency, imposing an abrupt shift to distance learning, has forced teachers at all school levels to cope with an enormous amount of self-e-teaching, as well as with providing materials, lessons and support via previously unexplored channels.

As educators face rapidly changing demands, they require an increasingly broader and more sophisticated set of competences than before. In particular, the ubiquity of digital devices and the duty to help students become digitally competent requires educators to develop their own digital competence; yet digitally competent educators must also consider the overall environment in which teaching and learning encounters are embedded. Hence, it is part of educators' digital competence to enable learners to actively participate in life and work in a digital age. It is also part of their competence to reap the benefits of digital technologies for enhancing pedagogic practice and organisational strategies.

In parallel with the growing awareness among many European Member States that educators need a set of digital competences specific to their profession in order to be able to seize the potential of digital technologies, on an international and national level a number of frameworks, self-assessment tools and training programmes have been developed to describe the facets of digital competence for educators and to help them assess their skills, identify their training needs and offer targeted training. Based on the analysis and comparison of these instruments, in 2017 the Joint Research Centre (JRC) of the European Commission – on behalf of the Directorate-General for Education, Youth, Sport and Culture (DG EAC) – presented a common European Framework for the Digital Competence of Educators (DigComp Edu).

DigComp Edu is a scientifically sound background framework which can be directly adapted to implementing regional and national tools and training programmes. In addition, it provides a common language and approach that will help the dialogue and exchange of best practices across borders. The Dig-Comp Edu framework is directed towards educators at all levels of education, from early childhood to higher and adult education, including general and vocational education and training, special needs education, and non-formal learning contexts.

The DigComp Edu framework aims to capture and describe the educator specific digital competences by proposing 22 elementary competences organised in 6 areas. The Framework also proposes a progression model to help educators assess and develop their digital competence, understand their personal strengths and weaknesses. It outlines six different stages through which an educator's digital competence typically develops: from Newcomer (A1) to Pioneer (C2). For ease of reference, these competence stages are linked to the six pro-

ficiency levels used by the Common European Framework of Reference for Languages (CEFR), ranging from A1 to C2. Since the CEFR levels are widely known and used, it is easy for educators to understand and appreciate their personal level of digital competence. Indeed, the mail objective of the proposed DigComp Edu progression model is to support continuous professional development. The descriptors combined with the CEFR levels are intended to motivate educators at all levels to positively appreciate their achievements and to look forward to expanding them further.

The DigComp Edu itself – as a background that can guide policy across all levels – invites and encourages adaptation and modification to the specific context and purpose. In line with this aspect and aware of the key role of digital preparation of teachers and students, the DILECTINGS project is firmly aligned with this framework. In particular, the project focuses on two specific aspects of the digital competences included in the DigComp Edu, namely Digital Literature Literacy (DLL) and Literature Digital Reading (LDR): these competences, nowadays necessary for a digitally competent teacher, can be extremely useful in second language learning. Hence, among other programmatic actions, the DILECTINGS project provides this common, lasting, and expendable conceptual framework related to DLL and LDR.

### 1.2 Digital Literature Literacy

Digital Literature, often termed as "e-literature", represents a transformative shift in literary expression, leveraging the capabilities of computer technologies and the internet. Distinguished from traditional print media, e-literature is characterized by its hypertextual, multimedia, and interactive nature. As De Vivo (2011) observed, digital literature can be defined as a computational literary form that employs the digital medium as both an aesthetic and rhetorical device.

Digital Literature is a dynamic and expanding field that redefines literary creation, consumption, and teaching in the digital age, particularly for redefining and empowering L2/FL teaching strategies, offering new avenues for interaction, learning, and active reader participation.

It must be considered, in fact, that Digital Literature changes not only the relationship between text and critical apparatus, but also between text, author and reader (Landow, 1997). The reader is actively involved, which is why a reflection on Digital Literature cannot be separated from a reflection on Digital Reading, especially in the educational sphere.

Digital Reading is the understanding, use, reflection on and engagement with written texts in order to add one's own goals, develop one's own knowledge and potential and play a participatory role in society, with reference to the processing of a digital text (e-text), i.e. a text 'placed' on a digital medium.

Coiro (2021) emphasizes the importance of defining digital reading terms within the collective interests and values of a community. She introduces a

multifaceted heuristic to organize and define the complex spectrum of digital reading experiences, acknowledging that comprehension involves diverse texts, activities, readers, and contexts. Consequently, this leads to a deeper understanding of Digital Literature in Digital Reading. Textual variations in digital texts, categorized into literary, informational, hybrid, multimedia, and multimodal forms, reflect the diversity of Digital Literature. Dynamic digital texts differ by format, genre, and interaction methods, including on-screen texts and hypertexts that digitally link materials, as well as hypermedia that blend hypertext with multimedia elements, thereby increasing comprehension complexity. Internet texts extend hypertexts within the vast, changing structure of the internet, introducing a wide range of intertextual and multimodal connections, influenced by hidden agendas. Moreover, augmented reality texts merge real and digital realms, allowing interaction with digital data in physical spaces and blurring the lines between printed and digital texts.

Coiro's work (2021) underscores the intricate landscape of digital reading, advocating for a comprehensive approach that accounts for the rich variety of digital texts and their implications for reading practices, particularly in the context of language learning. This calls for specific assessment and teaching strategies in L2/FL education, reflecting the complexity of digital reading and necessitating pedagogical shifts where educators integrate diverse digital texts and reading activities, moving beyond traditional linear reading to embrace the multifaceted nature of digital literature and its implications for comprehension and engagement.

As said, the shift from orality to writing in human history marks a profound cultural transformation, altering how knowledge is transmitted, how people communicate, and even how tradition is understood. This shift also led to an intellectual breakthrough. Writing – along with reading – ushered in the structured form of language we recognize today, with its clear grammar, defined meanings, and complex syntax. Along with writing came logical, reflective, and scientific thinking. Even in our modern world, we remain deeply immersed in writing, even as other modes of communication, such as sound and imagery, continue to expand.

Today's diverse forms of communication call for a reinvention of reading that goes beyond the traditional written text, breaking free from the closed, self-contained model of communication and interpretation. Digital reading has increasingly become part of our reading experience, not just with the advent of e-readers, but as the web has become a dominant force in our daily lives.

In fact, the distinction between reading digital and printed media may be less significant than we think, as both involve a sequence of words and images arranged on a surface. However, the medium itself does make a fundamental difference: no medium is "neutral," because form and content are inseparable. As media evolve, the nature of texts themselves also shifts, influencing the way readers perceive and engage with them.

Reading web-based texts in a qualified manner is a far from trivial task, a

challenge that is absolutely in line with the urgent demands for raising the quality of literacy. The online text requires elaborate executive, decision-making, critical and self-monitoring skills and this makes its interpretation more difficult, whereas reading on paper is usually deeper and tends to activate the processes underlying comprehension.

The DILECTINGS project proposes to stimulate the implementation of didactic approaches aimed at developing digital reading skills, which could develop from an in-depth reading of digital texts as well. This would involve teaching signification strategies applied to digital texts (prediction, questioning of the text, synthesis of the main ideas, representation of what has been read) that foster comprehension by supporting inferential processes, identification of the main ideas, recognition of the global or analytical meaning of the text, and its critical evaluation.

Further tools are considered to be paths that raise awareness of the importance of using metacognitive strategies to support reading; the development of skills to distinguish between relevant and irrelevant material; the organisation of information in a coherent order; textual synthesis. Creating opportunities for experimentation on the most effective strategies for improving navigation is also seen as an activity to be promoted.

In teaching practices, when approachin Digital Reading, it is therefore pivotal to raise awareness on such skills. When approaching Digital Reading we must take into account changes in the dimension of the medium and the the way in which the message is structures since all of this may complicate comprehension. In order to become competent online readers, it is not enough to transfer the skills learnt in reading printed texts onto a digital device.

A range of studies have explored the integration of Digital Literacy in education. Littlejohn (2012) emphasizes the need for institutions to value digital literacy, while Shelby-Caffey (2014) and Westman (2013) both highlight the potential of digital storytelling in enhancing traditional literacy practices. Myers (2006) and Blummer (2017) underscore the importance of integrating digital and non-digital tools in literacy practices, with Blummer (2017) specifically focusing on the digital literacy practices of youth populations. Quah (2021) provides a systematic review of digital storytelling authoring tools, offering design guidelines and highlighting their potential challenges. Rozema (2004) and Snyder (2000) both explore the potential of digital technology in literature instruction, with Snyder (2000) calling for a continued focus on research and practice in this area.

The current state-of-the-art in digital literature literacy education is characterized by a shift towards learner-generated content, with a focus on literary learner texts (Becker, 2023). This shift is supported by the use of digital storytelling authoring tools (Quah, 2021) and the integration of technology and digital tools in literature classrooms (Alfaruque, 2022). Digital storytelling and multimedia tools are also used to enhance language and literature teaching (Alan, 2023), and digital technologies are explored as a modern methodological model in literature teaching (Trifonova, 2021). In elementary literature education, digital textbooks are used to enhance material exploration and interactive learning (Kong, 2023). The use of digital writing in online communities is also explored as a way to promote relevance in contemporary communicative contexts (Bacalja, 2020). Lastly, the application of modern literary theory and technology approaches is considered to increase students' creativity in understanding and enjoying literary works in the digital era (Septiari, 2023).

Ultimately, today we can say that Digital Literature can improve reading and digital literacy, enrich language learning by incorporating multimodal digital communication, and stress the importance of technology in educational settings for academic success. E-literature, which is distinct from traditional media, can support global citizenship, autonomous learning, and critical thinking.

Digital Literature Literacy (DLL), characterized by its computational and interactive nature, challenges traditional narrative structures and requires new cognitive skills, particularly in digital environments. Developing metacognitive skills and personalized learning strategies is crucial for enhancing the language learning experience through increased engagement and a deeper understanding of language in a digital context.

Digital literacy, as outlined within the DigComp Edu framework, is recognized as a crucial set of skills for navigating the modern, technology-rich environment. This concept extends beyond traditional literacy, which focuses primarily on reading and writing, to encompass the ability to understand and utilize information in digital formats.

### 2. DILECTINGS platform: a technical perspective

#### 2.1 Introduction

The DILECTINGS project, an Erasmus+ KA220-SCH initiative, has developed a digital platform aimed at enhancing digital literature education, available at the following URL: https://DILECTINGS.uniroma3.it. This platform has been specifically designed to facilitate remote learning, enabling participants to engage with digital literature resources and educational activities from various locations. The focus on distance learning allows for greater accessibility and flexibility, accommodating the diverse needs of learners and educators across different geographical areas. By leveraging online technologies, the platform supports asynchronous learning experiences, collaborative virtual environments, and digital assessment tools, all of which are essential components for effective remote education in the field of digital literature. Therefore, this platform, built on Moodle 3.11.4+ (Build: 20211230), served as a crucial tool for fostering Digital Literature Literacy (DLL) and Literature Digital Reading (LDR) teaching.

The project's foundation rests on the recognition that the concept of reading has undergone a profound transformation in our digital age. With the ubiquity of digital resources and diverse reading formats, we must acknowledge that reading today is markedly different from traditional notions. This shift necessitates a reimagining of how we approach literacy education, particularly in multilingual and multicultural settings such as the European Union.

The DILECTINGS Moodle platform caters primarily to L2 teachers while accommodating student needs. It integrates technological advancements with established pedagogical practices, facilitating language learning both within and beyond traditional classroom settings. This approach reflects the platform's recognition of technology's pivotal role in contemporary education.

By leveraging digital literature, the platform opens new dimensions in language teaching and learning. It encourages innovative pedagogical and assessment approaches, fostering a more engaging and interactive learning environment. This is particularly crucial in the realm of second language acquisition, where digital tools have shown remarkable potential for enhancing learning outcomes.

#### 2.2 The Rationale Behind the Platform Choice

The selection of Moodle as the digital platform for the DILECTINGS project is underpinned by both technical and pedagogical considerations, making it one of the best choices for distance education nowadays. Moodle's opensource nature ensures flexibility and customisability, allowing educators to tailor the platform to meet specific pedagogical needs (Dougiamas & Taylor, 2003).

Moodle provides an excellent platform for fostering online learning communities, aligning well with the principles and goals of collaborative, community-based learning in digital environments. As Ke and Hoadley (2009) note, online learning communities are "a developed activity system in which a group of learners, unified by a common cause and empowered by a supportive virtual environment, engage in collaborative learning within an atmosphere of trust and commitment" (p. 489). Moodle's design and features directly support this conceptualisation by offering a range of tools for collaboration, communication, and content sharing that can nurture community development among geographically dispersed learners.

The choice of Moodle for creating distance learning communities is particularly apt given its emphasis on social constructivist pedagogy and its robust set of features for fostering interaction and engagement. As highlighted by several studies reviewed by Ke and Hoadley (2009), key factors in successful online learning communities include usability of the system environment, tools that support community-building, and features that facilitate learning-orientated achievement. Moodle excels in these areas, offering an intuitive interface alongside powerful modules for discussion forums, collaborative wikis, peer assessment, and other activities that promote social learning and knowledge co-construction. Furthermore, Moodle's open-source nature allows for customisation to meet specific community needs, which aligns with the finding that effective online learning communities often require tailored implementations to support their particular goals and contexts (Ke & Hoadley, 2009).

The thorough systematic review carried out by Gamage et al. (2022) further supports the synergy between Moodle's capabilities and the requirements for successful online learning communities identified by Ke and Hoadley (2009). This more recent study not only reinforces Moodle's suitability for projects like DILECTINGS but also provides a broader perspective on its adoption and effectiveness across various educational contexts. Gamage et al.'s work expands upon the earlier findings, offering a contemporary analysis of Moodle's evolution and its increasing alignment with the needs of modern online education. Their review highlights Moodle's continued development in areas such as adaptive learning, collaborative tools, and learning analytics, which directly address the key factors for successful online learning communities identified in earlier research. This convergence of findings across different time periods underscores Moodle's sustained relevance and its capacity to meet the evolving demands of distance learning initiatives, particularly in projects aimed at fostering digital literacy and language learning in online environments.

Based on this systematic review, Moodle emerges as a highly effective and widely adopted learning management system (LMS) that aligns well with the goals of the DILECTINGS project. Here are some key points connecting Moodle's capabilities to online learning communities and the DILECTINGS project:

- Support for collaborative learning: Moodle offers robust tools for collaboration, such as forums, workshops, and wikis. These features can facilitate the development of online learning communities, which is a core aim of the DILECTINGS project.
- Adaptive and personalized learning: Moodle supports the creation of adaptive content and assessments, allowing for personalized learning experiences. This capability could be leveraged in DILECTINGS to tailor digital literature experiences for individual learners.
- Assessment capabilities: Moodle provides diverse assessment options, including quizzes, peer assessments, and automated feedback. These tools can support the evaluation of digital literacy skills, a key component of the DILECTINGS project.
- 4. Learning analytics: Moodle's built-in analytics tools can help track student engagement, performance, and progress. This aligns with DILECT-INGS' goal of promoting and scaling up Digital Literature Literacy (DLL) and Literature Digital Reading (LDR) skills.
- 5. Flexibility and customization: As an open-source platform, Moodle can be customized to meet specific project needs. This flexibility could be valuable for implementing DILECTINGS' unique approaches to digital literature education.

- 6. Support for multimedia content: Moodle easily integrates various media types, which is crucial for presenting digital literature in diverse formats.
- Proven effectiveness: The review indicates that Moodle effectively improves student performance, satisfaction, and engagement – key objectives for the DILECTINGS project.

Moodle's features and proven effectiveness in online education make it an excellent choice for the DILECTINGS project. Its support for collaborative learning, adaptive content, and robust assessment tools aligns closely with the project's goals of promoting digital literature literacy and second language learning in an online environment.

Its robust support for a wide range of multimedia resources and interactive activities facilitates a dynamic and engaging learning environment, essential for effective second language acquisition (SLA) (Golonka et al., 2014). Furthermore, Moodle's extensive community of developers and educators continuously contributes to its improvement, ensuring it remains at the forefront of educational technology (Cole & Foster, 2007). The platform's compatibility with various devices and its user-friendly interface make it accessible to a diverse student population, promoting inclusivity and equity in education (Costello, 2013). For the DILECTINGS project, Moodle's capabilities in tracking and assessing student progress have proven invaluable, providing detailed analytics that inform instructional strategies and enhance learning outcomes (Al-Ajlan & Zedan, 2008). Thus, Moodle stands out as the superior choice for the DILECTINGS project, with its goals of fostering digital literacy and intercultural competence in second language learning.

Moodle's comprehensive suite of technical features establishes it as a powerful and versatile platform for distance education. Its open-source nature affords institutions extensive customisation capabilities, enabling them to tailor the platform to specific educational needs, modify interfaces, and integrate with other software systems. Moodle's robust multimedia support complements this flexibility by enhancing the learning experience through the integration of various content types, such as videos, audio files, and interactive elements.

The platform's design emphasises accessibility and user experience. Its responsive interface ensures seamless functionality across desktop and mobile devices, catering to the needs of students accessing course materials remotely. Furthermore, Moodle's multilingual capability supports diverse user bases, allowing content to be viewed in multiple languages – a particularly valuable feature in multicultural educational settings.

As stated before, Moodle excels in fostering collaborative learning environments for online learning communities. The platform incorporates a range of tools such as forums, wikis, and glossaries, which facilitate interaction and cooperation among students and teachers. These features are instrumental in creating a community-driven learning atmosphere, essential for effective distance education. Security and data management are prioritised within Moodle's architecture. The platform offers over 50 authentication and enrolment options, ensuring secure access to educational resources. Additionally, as an open-source solution, Moodle can be hosted on an institution's servers, providing full control over data and privacy—a crucial consideration for organisations subject to strict data protection regulations.

To support continuous improvement and assessment, Moodle provides comprehensive reporting and analytics tools. These features enable educators to track student progress and performance, offering valuable insights for tailoring instructional strategies to individual learning needs. The platform's extensive plugin directory further improves its extensibility by enabling users to incorporate additional functionalities like gamification and advanced analytics, ensuring that Moodle can adapt to changing educational trends and technological advancements.

#### 2.3 The DILECTINGS Moodle Platform

From the start of the DILECTINGS project, several crucial factors, primarily centred around security and stability, drove the decision to continue using Moodle 3.11.4+ (Build: 20211230) without upgrading it to the most recent version. Despite the availability of these newer versions, Moodle 3.11.4+ has proven to be a robust and secure platform, meeting the stringent requirements of our educational objectives.

Firstly, it incorporates comprehensive security features that ensure the protection of sensitive educational data. This version includes numerous security patches and updates that address vulnerabilities identified in earlier releases, thereby safeguarding against potential threats. The stability of this version has been thoroughly tested and validated, providing a reliable environment for both educators and learners.

Another significant consideration was the potential disruption that upgrading to a newer version might cause. Upgrading a well-established platform can introduce unforseen issues that may require substantial time and resources to be solved. By maintaining Moodle 3.11.4+, we have ensured continuity and consistency in the delivery of our educational programmes, avoiding the risks associated with major system changes.

#### 2.4 H5P Integration

The integration of interactive didactic tools within the DILECTINGS project's Moodle platform, particularly through the implementation of H5P (https://h5p.org/), represents a strategic decision aligned with contemporary educational technology and pedagogical trends. H5P, an open-source content collaboration framework created by Joubel in 2013, offers a comprehensive suite of interactive multimedia tasks that are both freely available and pedagogically effective.

The selection of H5P for enhancing the DILECTINGS Moodle environ-

ment is predicated on its versatility, accessibility, and compatibility with the project's objectives of promoting digital literature literacy (DLL) and literature digital reading (LDR) skills. This aligns seamlessly with the DILECTINGS project's aim to create an engaging, accessible platform for digital literature education across diverse educational contexts.

The decision to incorporate H5P into the project's Moodle framework was influenced by its capacity to empower educators at all levels to create, share, and modify didactic tools tailored to their specific curricular needs. Since its inception, H5P has been continuously developed and refined, with its integration into major learning management systems like Moodle occurring in subsequent years, further solidifying its position as a valuable educational technology resource.

The flexibility and user-friendly nature of H5P tools make them particularly suitable for the diverse range of literary content and interactive exercises envisioned within the DILECTINGS project. By leveraging H5P's capabilities, the project can offer a rich, interactive environment that supports the development of critical digital literacy skills, essential for engaging with digital literature in meaningful ways.

The integration of H5P interactive content within the Moodle platform for the DILECTINGS project allowed a significant evolution of didactic material for enhancing digital literature literacy (DLL) and literature digital reading (LDR) skills. This approach is supported by the findings of Roveri et al. (2023), which demonstrate the positive impact of H5P interactive resources on student engagement and learning outcomes in distance education. Their study, involving 122 undergraduate students, revealed that H5P elements such as interactive videos, timelines, and virtual tours significantly improved the learning experience compared to traditional Moodle resources. Notably, the research indicated that students found H5P-enhanced content more motivating (Q8) and stimulating (Q14) than conventional materials. The study also highlighted that interactive content increased student attention (Q10) and engagement (Q11) in the learning process.

These findings are further corroborated by the research of Matana et al. (2024), who developed an H5P-based Lumi Education learning medium for atmospheric dynamics. Their study, conducted at Senior High School 1 Gorontalo, demonstrated high validity scores from experts: 85.4% from product design experts, 88.3% from subject matter experts, and 90% from learning experts. Moreover, student evaluations of the H5P-based media were overwhelmingly positive, with an average response rate of 87%. This high level of acceptance among both experts and students underscores the potential of H5P in enhancing educational content.

Implementing H5P in Moodle for the DILECTINGS project made digital literature resources much easier to find and more useful. Furthermore, it created a more dynamic and interesting learning environment good for improving DLL and LDR skills. As Matana et al. (2024) noted, H5P-based media can be particularly effective in both offline and online learning processes, making it an ideal tool for the diverse learning contexts addressed by the DILECTINGS project.

The use of H5P in the DILECTINGS platforms aligns with current research on the effectiveness of interactive content in online and blended learning environments. H5P resources improve student engagement and learning, according to several studies. Jacob and Centofanti (2024) tested H5P interactive videos on 572 undergraduate psychology students in a randomised cross-over study. Despite no statistically significant differences in assessment scores between H5P and traditional content, students who used H5P reported positive experiences and preferred more interactive elements in future courses. H5P may improve student satisfaction and engagement, but not test scores.

Kosmaca et al. (2023) examined H5P interactive video presentations as an alternative to lecturing in physics practicum courses. They found no significant test score differences between H5P video and lecture groups with 60 undergraduate students. However, students liked H5P content, and 97% wanted more interactive elements in online videos to support their learning. Rahmi et al. (2024) used a rotation model to evaluate H5P interactive content in blended learning. Their study of 88 undergraduates found a positive correlation between H5P content perceptions and learning outcomes. Students liked the interactive elements' self-assessment opportunities and how H5P activities helped them understand lecture objectives and course material. Homanova et al. (2019) suggested using H5P to create interactive problem-solving tasks for elementary school students to develop key skills. They recommended H5P tools like Branching Scenario and Drag and Drop for complex, interactive PISA-aligned problem-solving.

H5P may not always improve test scores, but it can improve student engagement, satisfaction, and self-reported course understanding. H5P content's interactivity supports the DILECTINGS project's DLL and LDR goals. H5P elements in Moodle can make learning more engaging and interactive, encouraging active participation and deeper engagement with digital literature content. Furthermore, the user-friendly nature of H5P, as highlighted in both studies, aligns well with the DILECTINGS project's aim to create accessible digital literature experiences. The ability to integrate various multimedia elements, such as videos, interactive presentations, and quizzes, within the Moodle platform can significantly enhance the presentation and engagement with digital literature content. This multifaceted approach to content delivery is particularly crucial for developing DLL and LDR skills, as it allows learners to interact with literary texts in diverse and engaging ways, potentially deepening their understanding and appreciation of digital literature.

#### 2.5 Future Developments

In brief, the DILECTINGS project has made measured technological choices for its digital literature education platform. Moodle 3.11.4+ was selected as the learning management system due to its stability, security features,

and effectiveness in supporting online learning communities (Al-Ajlan & Zedan, 2008; Ke & Hoadley, 2009). The integration of H5P within Moodle has introduced versatile interactive tools aligning with modern pedagogical approaches (Homanova et al., 2019). While studies have not consistently demonstrated significant improvements in test scores, research indicates positive impacts on student engagement and satisfaction (Jacob & Centofanti, 2024; Kosmaca et al., 2023; Rahmi et al., 2024). Potential areas for improvement include enhancing analytics capabilities for better tracking of student progress (Gamage et al., 2022), further customisation of H5P elements for DLL and LDR skills, and more seamless integration of interactive content into the learning process. A significant future development could involve optimising the platform for mobile access, enabling mobile learning and microlearning opportunities. This adaptation would align with current trends in educational technology and cater to the increasing demand for flexible, on-the-go learning experiences (Crompton & Burke, 2018). Future developments could also explore the incorporation of artificial intelligence for personalised learning or virtual reality applications for immersive digital literature experiences. The current technological foundation provides a basis for continued innovation in digital literature education, though ongoing evaluation and adaptation will be crucial to maximise its effectiveness.

#### 3. DILECTINGS learning platform: modules, general structure, and contents

#### 3.1 A platform to implement Digital Reading Literacy

The present section is intended as a brief overview of the digital platform built for the Erasmus Project DILECTINGS, "DIgital Literature Educational Competencies for Teachers: Intercultural iNclusive Good-practices for Secondlanguage learning", a three-years Erasmus+ KA220-SCH action project aiming to promote and scale-up Digital Literature Literacy (DLL) and Literature Digital Reading (LDR) skills for L2/SL teaching and learning. The project has been developed starting from the assumption that "with widespread access to reading resources and various forms of reading, the concept of reading nowadays may be different from what it once was" (Meei-Ling & English, 62) and that, consequently, digital reading practices have reshaped the very concept of reading. Such new concept must be absorbed by teachers and students in order to live in an up-to-date, dynamic and interconnected education environment. It is also necessary to distinguish, however, different reading practices such as reading for academic research, reading as a pedagogical tool, reading intended as a leisure activity. Research has shown that new forms of reading do not necessarily pay off and do not affect positively text comprehension (Altamura et al.,  $20\overline{24}$ ). This is why it is important to enhance an adequate awareness, at least among teachers, of how to use effectively digital devices with their students to promote a productive digital literacy and adequate digital reading skills.

Since "technology has become integral part to the ways that most language learners in the world today access materials in their second and foreign language, interact with others, learn in and out the classroom, and take many language tests" (Chapelle & Sauro, 2020, 1), in a context of an integrated multicultural society as the EU, providing an integrated platform for SL teachers must be based on digital Literature. This is why the project pedagogical target is intended for both L2 teachers (direct target) and their learners (indirect target): as a matter of facts, "technology has added multifaceted new dimensions to [both] teaching and learning, which include new ways of teaching every aspect of language, new pedagogical and assessment approaches, as well as new ways of conceiving and conducting research development" (ibid). DILECTINGS provides an introduction to such new dimensions to teaching and learning.

The Moodle Platform designed for DILECTINGS is intended as a tool for teachers for reflecting upon and fostering Digital Literacy within school contexts and more specifically it is intended as a tool to be employed in teaching a second / foreign language. Digital literature has proved extremely effective in Second Language Acquisition (SLA), though it is not easy to select which technology to use for teaching purposes. Over the last years several contributions have attempted to provide a guide to the various possibilities new technologies offer us (Stockwell 2007; Levy 2009; Golonka et al. 2014, etc.). With the introduction of visual and auditory features and the possibility to interact with a text, reading has also acquired a more dynamic and multifaced dimension which cannot be overlooked when it comes to teaching learning strategies (included those intended for SLA). More significantly, "as the internet provides far-reaching and instantaneous interactivity, researchers and educators increasingly rely on sociocultural approach" (Meei-Ling & English, 2020, 62). This may also help teachers promote intercultural approaches while exploiting digital literature for the purposes of an effective and culturally oriented SLA.

With such premises in mind, a team of scholars and university professors from four European institutions (Università degli Studi Roma Tre – Italy, West University of Timișoara – Romania, Trinity College Dublin Learnovate Centre – Ireland, and University of Vic-Central University of Catalonia – Spain) built up a Moodle platform for DILECTINGS. This platform is made up of eight different modules with a preliminary questionnaire on digital literature and digital reading, a final questionnaire and a toolkit for school-teachers. Each module offers materials, activities and food for thought. For each module, participants are required to fill a Quiz/Questionnaire (where present) and complete at least one of the tasks proposed. To be awarded a certificate for the course, participants need to complete these activities.

#### 3.2 Modules: Structure and Content of DILECTINGS Learning Platform

The following sections provide a brief description of the different Modules that constitute the digital platform for DILECTINGS.

The first module, titled "Introduction to digital reading/literature: how we read today" gives trainees an understanding of key concepts in digital literacy. The module thus provides background knowledge about digital literature read-ing/literacy and introduce key theoretical topics defining digital literature literacy. It shows how the concept of reading varies according to the media we use for it; consequently, it is arguable that the very nature of texts changes, in some way, along with the reader's perception of them, depending on the digital devices we use as substitute for traditional written texts / books. Digital reading literacy is contextualized as one of the diverse perspectives on reading, keeping in mind that such perspectives "can transcend the simplistic dichotomy of print versus digital reading in contemporary public discussions, and foster a more nuanced understanding of literacy" (Erstad et al. 2023, 1).

In this first module teachers will be introduced to the skills needed to help learners engage with the digital world in a responsible and effective manner. This module will also draw on the participants' digital experiences to explore the role of digital technologies in reading. Since the whole project deals with learning a second language using digital literature, a part of this first module also shows how language learning has developed and profoundly changed in the present era characterized by new technologies – specific attention is thus devoted to the distinction between CALL (computer assisted language learning), TELL (technology-enhanced language learning) and MALL (mobile-assisted language learning).

At the same time, this first module promotes responsible digital citizenship referring to (and introducing) the book *Digital Citizenship in Schools: Nine Elements All Students Should Know* (International Society for Technology in Education, 2015), by Mark Ribble.

The second module, "Hypermedia and hypertext: plain text, graphics, photographs, (artistic images), symbols and hyperlinks" helps participants understand the differences between hypermedia and hypertexts in terms of directionality, structure and interactivity. After defining the concepts of Hypermedia and Hypertext, this module also delves into the role of online reading paths and their associated metacognitive strategies. This module examines the pedagogical use of graphics and audio/video resources to create multimedia reading activities. The text chosen as an example of hypertext is *Lasting Image* by Michael Joyce and Caroline Guyer: it is composed of 20 frames, 18 of them being accompanied by texts under the respective picture. The whole text can be read in two ways: following the forward (and back) arrows or following the invisible links. This means that students can understand the role of directionality, structure and interactivity in digital reading. Finally, this module also includes several interactive sections and task-based activities both on the different definitions provided and on the text above mentioned, thus describing patterns of metacognitive strategies in digital literacy. Users will learn how to create hypertexts for language learning.

The third module, titled "Digital reading strategies & narrative structures for digital writing", is meant to broaden the users' understanding of the foundational concepts of digital reading and narrative structures to support students in those areas. In addition, teachers will be able to provide students with strategies to improve their performance when reading digitally. The module is also meant to amend a common misunderstanding when dealing with online and digital texts: in fact, while reading online has become commonplace and in many instances mandatory, readers are not necessarily engaging with digital texts effectively or efficiently. Engaging with non-linear texts, checking the reliability of sources, keeping track of the information, browsing the web and digital archives in search of relevant and pertinent information are some of the challenges people face when dealing with digital texts. For this reason, this module stresses the differences between traditional and digital reading and helps teachers train their students on how to read in digital space. This module also explains how to make reading a social experience and highlights the benefits of using digital content. Finally, it creates pedagogical guidelines for welldesigned digital content.

The fourth module, "Gender, minorities and inclusion", tackles a sensitive and socially current issue of our modern society: everyone is nowadays supposed to be aware of the importance not to leave anyone behind in their path towards education, and of the importance to include and accept differences providing forms of inclusions for disadvantaged people. This fourth module is meant to exploit digital reading and digital writing for inclusion in class. Users will broaden their understanding of the foundational concepts of gender, minorities and inclusion to support students in developing an adequate and complete sensibility towards such crucial instances in a society that is supposed to be built upon values of justice and equality. A first section includes links to the definitions of concepts as gender, sex, feminism, intersectionality, sexism, patriarchy, discrimination, queer, misogyny etc. Thus, in order to try to achieve a genuine canonical equality, users will provide students with activities to improve their knowledge on women's legacy in literature and pedagogy when reading and writing digitally. Secondly, users will find activities on minorities, inclusion and education. These include revisions of concepts, and reflections on personal and educational practices.

One section of the fourth module is devoted to gender discrimination and equal opportunities. After an introduction to important intellectuals, writers and activists as Mary Wollstonecraft, Virginia Wolf and Malala Yousafzai, users will find a topic for discussion. Another section is devoted to symbolic mothers in the History of education, focusing on a genealogy of Teachers and Pedagogues in Europe. A further part of this module reflects the previous one, taking into account the topic of minorities and inclusion, thus focusing on definitions as minority, acculturation, assimilation, amalgamation, inclusion, diversity, equity, special needs etc. The fifth module is titled "Creating digital stories: storywriting toolkit for teachers". It is intended as an introduction to the different forms of digital storytelling in the context of interactive narrative. This module helps teachers create a digital story by providing technological tools that can be used to teach language and literature. Contemporary applications are here presented together with narrative theory to assist participants in their plot and character development. The main goal of this unit is to approach new computer-based tasks with greater confidence, to introduce the concept of digital storytelling, to introduce the role of narrative theory in story development, to explore multiform narrative structures and conventions, to locate, open and use software applications for digital storytelling, and to prepare pedagogical guidelines for digital storytelling in the classroom.

*The sixth module,* "Fostering and assessing language competences through DL & LDR", is developed according to the guidelines drawn from the DL/LDR literature review and the Survey conducted as first steps of the research project and re-purposed on Second Language Teaching and Assessment strategies and tools. This module introduces trainees to applying the key concepts in digital literature and digital reading literacy to the teaching and assessing of a second/foreign language.

It is made clear that the term "Digital Assessment" is here used to define assessment approaches enabled by digital technologies. A preliminary distinction between different types of assessment is made. There are assessment fully enabled by digital technologies and often defined by their use of technology; it is possible to find more traditional assessment types, elements of which are now often enabled using digital technologies; in this case, some aspects or characteristics of traditional types of assessment persist, while others have changed in order to be adapted to the new context and represent something that cannot be reproduced with traditional tools; finally, it is possible to use assessments which have moved into a digital context due to Covid-19, but that may also be undertaken in traditional face-to-face formats. These last assessments keep the same characteristics as those they had when used in traditional environment, and do not represent something new.

This sixth module also distinguishes between assessment and evaluation, that are similar for certain aspects but have different functions and are used in different contexts and with a different scope. It is made clear that an assessment is an ongoing process and can be used to measure (not to judge) learning processes in different moments (not necessarily at the end of a specific session or term). Assessments can also be collaborative and tailored to a specific context; it is possible to distinguish between formative assessment, summative assessment, confirmative assessment, norm-referenced assessment, criterion-referenced assessment, ipsative assessment and many other forms of assessment.

It is also made clear that digital assessment presents different advantages if compared to more traditional assessment. Advantages are, for example, in terms of accessibility (it is possible to use it everywhere), in terms of transparency (providing access to the different reports and instant feedback; it helps identify learning problem), in terms of profitability (it is extremely practical), in terms of efficiency (it reduces teachers' workloads); moreover digital assessment is eco-friendly (no need to use paper and storage space). Certainly, digital assessment also presents some difficulties or disadvantages, such as the difficulty to grade long (open) answers and the difficulty to adapt and learn new technological tools which can also be expensive for certain institutions. Finally, some users (teachers and students) might even resist this tendency to use new technologies or might feel isolated without face-to-face interactions.

A further section of this module reports on two useful websites that can help teachers work on different types of assessment for their pupils: The Cambridge English Digital Framework for Language Teachers<sup>2</sup> and the European Centre for Modern Languages.<sup>3</sup> Both websites provide useful and meaningful support for digital assessment referred to language skills and competences. In addition, another extremely useful web page is by UCD (University College Dublin). It describes the different types of Digital assessment: by clicking on each definition users can find a brief introduction to what that specific assessment is like, its goals, its structure and the tool users can adopt. Finally, a list of possible useful platforms (as Moodle, Hurix, Socrative, Google Forms, Mentimeter etc.) is provided.

A second part of the module is devoted to digital literacy in FL/L2 learning for teachers' pupils providing again a list of useful resources for engaging teachers who want to use digital literature and digital reading with their students. There are links to webpages that help build an e-book for school and make it interactive using Canva, or, among other resources, webpages to produce a realistic book design with PowerPoint. At the end of this module, it is possible to upload the products created following the guidelines provided by the different resources presented. Potentially, this space can be used to share ideas and projects with colleagues and to enhance cooperation between students and/or between school teachers.

*Module seven* is titled "Assessment & Digital Literacies". This module is meant to help practitioners both reflect on and assess their digital literacy skills. Through a series of tasks, the module aims to initiate reflection and to provide teachers with criteria to select the most appropriate assessment to demonstrate core digital competences. In addition, participants will be able to evaluate the course pathways and their impact and transferability to practice.

This module is divided into six different sections: introduction and warm up, digital literary assessment in education, evaluating assessment tools, digital

<sup>&</sup>lt;sup>2</sup> https://thedigitalteacher.com/framework

<sup>&</sup>lt;sup>3</sup> https://maledive.ecml.at/Home/Studymaterials/School/Buildingonpriorskills/Guidingquestions/tabid/3745/Default.aspx

literacy and language, digital literacies in the classroom, food for thought for independent reading. The first part provides a Digital Literacy Diary, a useful tool for the different interactive parts of the module. A digital assessment awareness survey is also provided at the beginning. The main goals of this module are: examining different types of Digital Literacy skills assessments, self-assessments and inventories, performance- or competency-based assessments; presenting a comprehensive, practical guidebook of digital literacy assessment tools; reflecting on self-learning and own digital reading skills; adapting existing assessment materials to own classroom practice.

*Module eight*, titled "Developing Digital Critical Literacy", is the final module of DILECTINGS Platform. It examines ways of developing digital critical awareness. Starting from the idea that "digital tools have a positive impact on the development of critical thinking, and [that] this influences citizen participation, transforming people into more engaged citizens of the world with participatory attitudes and values" (Gonzalez-Mohino et al. 2023, 769) this module proposes users various tasks, asking them to consider different forms of language, from the language of information to the language of persuasion, strategies to identify when a text is meant to persuade or inform and how the medium of engagement with different genres can impact understanding. This module is linked to the Digital Literacy Diary Module eight. Its main goals include: creating awareness of function and forms of language; enlisting strategies to identify texts that inform or persuade; collating activities that can be used in the classroom.

*The last section* of the platform includes a space devoted to exchanging ideas and a final satisfaction questionnaire. This section is thought for school teachers and educators who intend to join the project and exploit the different possibilities provided by the modules; this section is particularly important as it is meant as a collaborative tool functional to the project itself. In fact, DILECTINGS and its main output (the learning platform) can be thought as a constant work in progress, subject to changes and updates that might include new insights from the ongoing academic debate, links to new technological tools implemented in more recent years, reports on practical teaching experiences that exploited digital literature and digital reading with a specific and critical attention to their main results in terms of performances, success and possible flaws.

The platform includes a final *Toolkit for teachers*. There are four key modules of this toolkit.

1. *Self Assessment:* This module allows you to self-assess your DLL and your LRD skills against five key dimensions, namely, Digital Literature Reading Skills, Digital Comprehension, Digital Research Skills, Mul-

timodal Literacy, Critical Evaluation. Your personal report indicates what level you are at – beginner, intermediate or advanced and your personal report, and offers personalised suggestions for areas of improvement.

- 2. *Learn Skills:* Based on users' assessment, this workspace offers five personalised resources for you to focus on to develop your professional knowledge development of DLL and LRD. Such resources are: teachingbooks<sup>4</sup>, booktrust<sup>5</sup>, Oxfordowl<sup>6</sup>, Project Gutenberg<sup>7</sup>, and Hathitrust digital library<sup>8</sup>. It also offers a variety of resources that you can access to develop your more general knowledge on the topic.
- 3. *Collaborative Lesson Planner:* This workspace allows users generate personalised lesson plans focused on the development of DLL and LRD skills. Users can edit, download and print when required. Users also have the option of sharing your plans and receiving feedback and suggestions from other teachers.
- 4. *Exchange and Endorse Skills:* This workspace allows users to communicate and collaborate with fellow educators and expand their community of practice. It also helps provide feedback and/or endorse colleagues.

As said, this project and its platform cannot be considered as definitive, something given once and for all. As DILECTINGS is open to receive feedbacks from users and scholars, it can be furtherly and continuously implemented and expanded. New technologies are in a constant and permanent status of transformation and evolution; likewise, DILECTINGS cannot be seen as a static accomplishment but it must be intended as an ongoing work in progress.

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<sup>&</sup>lt;sup>6</sup> https://www.oxfordowl.co.uk/

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# Marius-Mircea Crișan, Aba-Carina Pârlog\*

# Monitoring Teachers' Training

Maybe many of us had the feeling that digital technology had its moments of triumph during the recent period of the COVID-19 pandemic, when teachers around the world had to familiarize themselves in a short time with various online learning or teaching platforms. It is worth mentioning here that the English language teachers in Romania faced the challenge of the online learning in a similar manner to the teachers in Italy and Spain, as demonstrated by a comparative study dedicated to this topic (Canals-Botines et. al, 2022). Many digital instruments (especially online communication services or learning platforms) have proven their efficacy, so that they are frequently used in the postpandemic period. However, the teacher has to find the right moment when to appeal to the online resources. As we have stated before (Crişan, Pârlog, 2022), we consider that digital technology should not be perceived only as a means to vary didactic technology in the language and literature lesson, but rather as a learning approach which stimulates the involvement of the students in the learning process.

Each teacher may observe that today's students actively communicate and express themselves by means of digital technology, and there is no doubt that the use of digital tools in the study of the humanities is necessary for educators all over the world. The systematic approach of the influence of digital technology on the field of literary studies has been developed in the United States of America since the 1980s onwards (Crişan, 2006). In the first decade of the 21<sup>st</sup> century the interest of the European academic environment in this topic led to the development of several postgraduate international training courses on digital literature (such as "Approaching Cyberculture: Humanists as Actors in the Development of Technology", Karlskrona, Sweden, Blekinge Institute of Technology, May 2003, or "Exploring Digital Artefacts", Söderton University College Stockholm, June 2005).

In the last decade, the technological approach component has become a basic element in the development and implementation of many European Erasmus + projects, both in the university environment and at a pre-university level. For instance, the Erasmus + ELSE (Eco/logical Learning and Simulation Environments in Higher Education) project, which ran from 2018 to 2020, proposed adding new tools to the university didactic learning activities. These included didactic games, which helped create a lesson based

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on students' completing an exercise designed to resemble a digital game (ECORE) or EVOLI, a tool for analyzing students' reactions to material presented in a lecture. The project was based on the idea that digital tools should be used especially when they foster a genuine and deep involvement of the student in the English lesson.

Based on collaboration between university education and the pre-university environment, DILECTINGS (DIgital Literature Educational Competences for Teachers: Intercultural iNclusive Good-practices for Second-language learning 2021–2024) is the second Erasmus + project in which the authors of this paper are involved. The access to digital literature and the use of digital technology in the process of reading need to be implemented by educators who are well trained in this field. This is why the learning modules proposed by the four universities in the DILECTINGS consortium, through their members, cover a variety of topics, which may be approached by educators from different cycles in pre-university education.

In the DILECTINGS project, West University of Timisoara (WUT) team has had the role of monitoring the online training activity based on the eight modules available on the project platform. Each university partner – Università degli Studi Roma Tre (Roma Tre, Italy), Fundación Universitaria Balmes (University of Vic – UVIC, Spain) Universitatea de Vest din Timisoara (WUT, Romania), Trinity College Dublin (TCD, Ireland) – uploaded two modules developing particular topics within the theoretical area mentioned above and highlighted learning and teaching directions meant to help the didactic process evolve in such a way as to determine the forming of graduates with a higher level of knowledge. The project platform (https://DILECTINGS.uniroma3.it/) allows teachers to become actively involved in the learning process by answering (warm-up) quizzes or revision question sets, solving tests or conducting research on their own, as recommended by the project partners in their modules. The eight modules emphasize the importance of insisting on literature digital reading (LDR) and digital literature literacy (DLL) in the teaching profession so that students may become fluent in the foreign language(s) they have selected for study and able to use digital technologies without problems.

DILECTINGS teachers' training represents an important step in the autonomous training based on teaching and learning by employing digital technologies. The useful digital tools included by the partners in the Erasmus+ project are meant to help teachers at all didactic levels to enhance their classes by modernizing their approach to didactic matters. Whether one discusses foreign language teaching or learning through digital literature (DL) or digital reading (DR), the frequent use of digital technologies in class contribute to the creation of a more interactive atmosphere based on research and independent learning which makes students enjoy the teaching and learning process much more.

According to Cynthia White (2006, 325), «[...] the influence of new technologies becomes more pervasive, [and] attention is drawn to the need for

shifts in the practice and conception of language learning and teaching. Teachers must be prepared not only to learn about, understand and adjust to new learning environments, but to learn what they may afford in terms of learning and teaching opportunities. Equally importantly, they need to be critically aware of the expectations, norms and knowledge learners bring to online learning [...]». The same holds for the set of purposes selected for our online training; it is what the learners of all ages bring from outside the classroom that calibrates the directions that the foreign language class will take. Culture is an important factor and should also lie at the heart of the teaching process.

Our chapter refers to several aspects related to the process of monitoring the trainees' learning activities and to the evolution of the digital training process, including some examples of how they tackled specific exercises. It also presents several means employed by the WUT team in order to have an objective view upon the participants' activity: creating a digital training overview document, verifying overall assessment tools and designing a post-training competence/satisfaction questionnaire. The paper focuses in particular on module II, entitled *Hypermedia and Hypertext*, created by associate professor dr. Marius-Mircea Crişan (Teacher Training Department of the West University of Timisoara) and module V, *Didactics applied to digital literature and digital reading of literature*, developed by associate professor dr. Aba-Carina Pârlog, Department of Modern Languages, Faculty of Letters, History, Philosophy and Theology, WUT.

The overview of training participation focused on the modules completed by the participants, the quizzes answered, the assignments sent, the day and approximate time spent on doing this as provided by the platform. We ensured that everybody filled in the preliminary questionnaire and also that the quizzes included in the eight modules were solved together with an additional practical task. WUT team supervised participants by mainly communicating with them on the DILECTINGS platform messaging tool, in order to ensure that they actively engaged in the training activities, as agreed with our institutional partners.

After having previously studied each module structure, our team tried to clarify the means of assessment employed by each project partner so that we might be able to help the training participants to select the pre-established assessment documents. We checked the ease of access in the case of the modules and helped with technical issues of a non-specialized nature. We also regularly verified the participants' complete reports on the platform checking for new changes every time, which ensured our management of their training activities. We encouraged early participation in the digital training and guided our trainee colleagues by ensuring that they complied with the agreed requirements on time. After having had a close look at the training modules and established the essentials of each, WUT team suggested a set of questions for the post-training competence/ satisfaction questionnaire. This was turned into a Google doc so that our partners might be able to introduce changes according to the specifics of their research work results.

The teachers involved in the piloting of the project training were not supposed to undergo an intensive rhythm of learning, but to rather insist on those platform materials, that they felt, helped them more in the didactic process and the teaching (sub)area that they were working in. They did not prove to be interested in the very same topics. Consequently, the additional materials of some modules (which allowed for plenty of sources that would open further reading lanes for the trainees) can be considered more developed by some of the trainees as opposed to other materials. The latter were probably found less useful, so they neglected to go over them and turned their attention towards topics they were interested in which is why they did not actually know how much developed the materials were. Thus, the time spent on supplementary research was employed differently by the training candidates and their opinion about these materials may be seen subjective.

Regardless of the country they come from, they were very much interested in the ways of creating new classes based on modern technology and on the advantages and disadvantages of making iPads, tablets or laptops a compulsory requirement for their students, depending on their age, their institutional digital support and their school location (Hatos, Cosma, Clipa, 2022). However, as many teachers may lag behind as far as computer literacy skills are concerned, there may still be cases of students who can be better in using the internet than their teachers, as the IT theorist below explains:

«While the teacher may know more about the contextualization of digital literature within the history of literature and the arts, the students are likely to possess more *media literacy* regarding achieving, navigating, processing and manipulating data online. This has an enormous effect on the situation in the classroom. Teaching digital literature is not just the continuation of teaching conventional literature with other means; it aims at making the student fit for the 21st century multi-media society and it starts with making the teacher fit for meeting her students» (Simanowski, 2009, 233). This is why such training, as the DILECTINGS one, is so necessary nowadays.

Digital technology comes first and foremost in our era and agents involved in various fields of knowledge understand its importance. As Richard Andrews (2000, 26) very well explains, during classes, one is no longer meant to discover words in the usual pages of a traditional book which would cause a limited impact among students. They should be read in a rather modern, complex and attractive visual form where sound may also come into play: «It is not that we are leaving words behind and are 'turning to the visual'; simply that the visual is coming up alongside the verbal again in communication. [...] the verbal is no longer the only mode we have to deal with as English and language teachers».

The important phases of supervising the trainees' participation in the piloting of the teacher training presupposed ensuring that they all went through the core activities of the eight modules, that they read the materials meant to supplement their background on teaching foreign language classes, that they considered ways of introducing teaching activities inspired by this digital training in their didactic activities (as suggested by quizzes) and that they solved the required assessment tasks. Nowadays, «[s]ome instructors are incorporating emerging technologies such as simulations and educational or serious games, augmented and virtual reality, in the ways that fundamentally change the experience of learning. These are all indications of the growing importance of digital learning» (Bates, 2019, 53), which naturally, we also focused on as part of our DILECTINGS project training meant to answer teachers' queries about the evolution of teaching and learning as digitally-enhanced processes.

WUT team dealt with the tasks of monitoring the amount of time the trainees spent on the same activities and found significant differences with some trainees accessing certain documents only once or twice, while others had accessed them about ten times. There were also cases of documents not opened at all which proved that particular previous documents probably had had a greater impact and determined the avoidance of further research. There is also the professional knowledge which some of them had acquired beforehand and which made them not undergo the training parts meant to dwell on it or develop it further.

The table our team created was done by gradually monitoring trainees' daily platform access at various hours because the platform did not provide information on the time spent on each activity (only the number of times the document was accessed) and we had to make a note of the details regarding the day(s) and time spent studying each document. The necessity of further study was suggested by the fact that particular documents in some modules were opened repeatedly, but this could also account for the fact that perhaps the study was done in a hurried pace and the important information that was sought might have slipped by.

The participants' complete reports allowed for verification of training evolution and for spotting of the problem areas – such as documents that did not open or save the information that the trainees had filled them in with, quizzes whose answers could not be visualized by the module creators, tests that had not been solved despite requirements or failure to finish within the initially specified amount of time. Lists of details regarding each amount of time spent on each activity would be useful in order to draw a conclusion on whether most trainees found it difficult to understand certain materials, or maybe found them useful and went back to them in order to refresh their memory, or simply to check which knowledge areas were of less interest to them. Such lists of details would be considered necessary in order to devise a questionnaire about the importance of the time amount spent by each trainee while studying each document.

The competence and satisfaction questionnaire developed by WUT team was meant to verify the trainees' acquired competences as well as their satisfaction with the piloting stage of the project training. It contained questions that went in depth with the main ideas that each module comprised. However, it was suggested that we should transform the questions and give them a more general direction for efficiency purposes, as the questionnaire had been perceived as too complex, having taken the slight form of a test.

In module five, for example, the trainees' studying proper comprised their learning about digital exercises of various types focusing on DL and DR that they could include in their classes. The questionnaire questions, as expected, would focus on the problems connected to the ways of using digital stories while involving students in class activities, digital tools one felt confident about using after having undergone the study of the module, reading and writing exercise combinations which make benefits surface in both respects, the value of the module teachings, etc.

In the following pages, we will give some examples of activities developed by the trainees on the DILECTINGS learning platform. The second learning module, entitled *The Hypermedia and Hypertext*, explains how a digital literary text, also known as hypertext, is constituted, referring to the structure and the interactivity of this type of literary work. The module also demonstrates the range of options for reading online, and discusses the metacognitive techniques related to digital reading. According to the *Computer and Internet Dictionary*, a hypertext is «a method of producing text, ideal for computer use, that allows the reader to navigate through the material in a manner of their choosing» (Pfaffenberger & Wall, 1999, 271, translated into English by Marius Crişan). Reading such a text, a task achieved by accessing the links to the «maneuverable units», accessed by clicking on each link, is called *browsing* (Pfaffenberger & Wall, 1999, 271-272).

The module *The Hypermedia and Hypertext* intends to demonstrate how the reception of a hypertext is different from reading a printed text, which requires reading the content linearly from the first to the last page. Instead, the recipient of a digital text can follow «paths of association by document using predefined or user-created links» (Pfaffenberger & Wall, 1999, 266), which s/he can access based on default suggestions or his/ her own browsing preferences. A hypertext's constituent parts are intricately linked together; access to one unit from another can be obtained by a variety of routes, and, if a hypertext's constituent parts were printed, the hypertext would split apart and cease to function. Thus, browsing is actually the action that activates the literary hypertext, this type of literature that can only exist in the digital environment (Slatin, 1995, 157).

Literary hypertext is created as a literary work or as a work of digital art with narrative, descriptive, or lyrical elements. It differs from most online texts, which mainly serve as informational resources. These elements may include, in addition to text and graphics: illustrations, photos, stylized images, etc. Reading a digital text necessitates a unique kind of reception since it replaces the linear, chronological view of events with reading as travel across links that the author has created. Beyond words, visuals can have a significant impact, and understanding digital images enhances reading text. When receiving a hypertext, the reader has the freedom to choose his /her own reading path. The same reader may go through the narrative differently on each navigation, because s/he may access the links on each new reading differently. Thus, not only does the interpretation of the hypertext change with each new reading, but also its structure. The reader's choice is fundamental in constructing the narrative path: «In network-structured texts users do not cruise along any clearly defined main track. On the contrary, they wander around a net-like structure, of content spaces. [...] the link is obligatory in network-structured texts. However [...] links function differently, resulting in, among other things, a number of alternatives for the user to choose between at each crossroads or, perhaps, a better metaphor in this case, at each circle» (Gunder, 2001, 125).

In order to illustrate the structure and navigation possibilities within a hypertext, the *Hypermedia and Hypertext* module proposed activities based on the analysis of the hypertext *Lasting Image* by Carolyn Guyer and Michael Joyce. The construction of this hypertext by the two American authors starts from some original illustrations, printed on a cardboard material. The original cards represent significant images from Japan, mostly typical landscapes, quite varied, with mountains, waters and typical buildings, through which a rather exotic universe is outlined for the American receiver. Starting from the ten illustrated cards, Carolyn Guyer and Michael Joyce build an ambiguous narrative, centred on a blind photographer, author of photographs that capture the essence of the Japanese picturesque. As it can be seen in the full text available online (for free), each image inspired a piece of the literary work, and the way in which the reader can receive the hypertext involves a multitude of paths: https://www.eastgate.com/LastingImage/.

The receiver can read the text from one image to another, following the arrows back and forth, or can access a specific word in the text that takes him to a completely different part of this corpus. The hypertext can be followed by accessing the words or by accessing the images, and the reading is transformed, by navigating a labyrinth that combines the elements of this digital text, into an infinite possibility of associations and interpretations.

The trainees who fulfilled the tasks connected to the *Hypermedia and Hypertext* module provided original interpretations of the work *Lasting Image*, and expressed insightful ideas in their reflections on digital literature. Since Guyer and Joyce's hypertext lies on ambiguous connections between its constitutive elements, the trainees succeeded in finding a narrative line in *Lasting Image*. Anna Raimondi suggests an abstract of *Lasting Image*: the first person narrator «is travelling with his friends to a small fishing village below Yokohama. There, there is a blind man who wears a wooden camera with which he takes a lot of photos. The narrator and his friends are told that this blind man lost his sight looking up into the searing light at Nagasaki. Some nights they drink Saki in the fishermen's huts but they return to sleep at their country inn. One of the men, finds the blind's photographs and uses them as a deck of play-

ing cards». Luminița Elena Brînzei notes that «the text begins presenting the difficulties people had to find alcoholic drinks such as beer in some areas from Japan after the war». Elisabet Martí Sala also observes that the story is «set in a Japanese village», and distinguishes the foreign explorers and the blind photographer as characters of the hypertext. Victoria Malcolm perceives the main characters, the narrator and his companions, as «Western soldiers left behind» in the «the aftermath of war». The polyphonic structure of the work also is remarked by Judith Wilson, who sees *Lasting Image* as «a narrative text telling various stories about life in that village after the war», and notes that the work «is non sequential and has different stories depending on where you click in the image».

Another task suggested to the teachers was to find possible meanings in this hypertext. Gabriela Hluşcu thinks that «the meaning of this text is to create a vivid picture of a past time in the mind of the reader». The same idea is suggested by Liliana Banc, who writes that *Lasting Image* «combines elements of both narrative and poetic writing to create a vivid and evocative description of a particular time and place», and «at its core, it seems to convey a sense of nostalgia and longing for a past era, a time when life was simpler and filled with unique experiences». In Liliana's reading, *Lasting Image* «paints a picture of a Japan recovering from the war, where beer is scarce, but the people find solace and beauty in the small fishing village, its inhabitants, the blind man named Meisetsu with his superb photographs and a life story shrouded in mystery».

Mariana Vadai pays particular attention to the relationship between the text and the images, emphasizing the complexity of this connection. In her reading, «text and images can be regarded as a whole», since «the words are used to create a certain mental image that the pictures/frames also depict, in most cases», composing a text whose «number of interpretations seems limitless». The same idea is emphasized by Liliana Banc: «The text evokes a sense of visual storytelling, making the reader feel like they are experiencing these moments alongside the characters. Above all, the pictures that accompany the story manage to give the reader a greater understanding of the story, and the aura that surrounds it, apart from being a real pleasure to look at». As Mercè Coromina Barris writes, this syncretism leads to «a visually immersive form of reading literature». Bogdan Imbri interprets *Lasting Image* as a text «about natural beauty», whose meaning is that «beauty is in the eye of the beholder, and can be seen even if the character is blind».

The trainees have paid particular attention to the particularities of the process of reading a hypertext. Anna Raimondi observes that all the elements of the text are «interrelated in a story that the reader can read anyway because the text is composed as a webpage». According to Lavinia Stănilă, a hypertext challenges the idea «that a work is strictly the sole property of the author, mainly because of the freedom of reading selection and direction». Sonia Reggio also observes that «the evidence of the author-reader relationship in hypertext is fundamentally transformed in comparison to traditional print literature». In a similar manner, Angela Scarnecchia notices that «the hypertext narrative offers multiple paths and offers a more complex and multifaceted image of the narrated world, leaving the reader, who becomes an active part in the creative process, the task of connecting and reconstructing the drawing (or one of the possible drawings) of the author».

Another aspect on which the trainees were encouraged to reflect was the relationship between the narrative and poetic elements. Although most teachers emphasized the narrative structure of *Lasting Image*, there were also some opinions which pointed to the lyrical elements of the text. According to Bogdan Imbri, «formally and traditionally, it is a narrative text because the writer expresses his feelings indirectly with the help of the characters. However, there is no plot and the feelings expressed are so vivid and personal that it gives the impression it is a poetic text». Following a similar way of interpretation, Victoria Malcolm perceives *Lasting Image* as «poetic rather than narrative».

According to Liliana Banc, *Lasting Image* «embodies the essence of literature through its masterful use of language to craft a vivid and evocative narrative. It transports readers to a specific time and place, conjuring a tangible sense of post-war Japan's atmosphere, scarcity, and the unique beauty found in a small fishing village. By interweaving descriptive storytelling with poetic elements, it engages the reader's senses and emotions, inviting them not only to visualize but also feel the experiences and emotions of the characters. Furthermore, the text delves into intricate themes, such as perception, memory, and the unexpected sources of beauty, which are hallmarks of literary exploration. Its ability to evoke a deep emotional and intellectual response demonstrates that, despite being an excerpt, it encapsulates the quintessential qualities of literature – the power to transport, provoke thought, and resonate with the human experience».

The trainees' observations led to the conclusion that if today's and tomorrow's generations have access to literary texts through both print books and digital technology, the preference for one of the two mediums is likely to depend on individual taste. Another conclusion that can be drawn from their activity on the platform is that reading the printed text allows a deeper involvement, facilitating the understanding of the emotions and the complexity of the text in a more coherent manner, as opposed to the reading of the digital text. We believe that the connection between students and the digital reading device is essential and requires further investigation.

In module five, *Didactics applied to digital literature and digital reading of literature. Focusing on Reading: New Ways of Employing ICTs*, teachers had a chance to learn how to create digital exercises of various types. Digital exercises have become more and more fascinating as they contribute to the creation of a new virtual dimension meant to stimulate learning. Teachers can create DL exercises based on a classic story fragment, an adapted fragment taken from a fable, fairy tale, mythological story, legend, etc. or a created story fragment.
Writing DR exercises helps a teacher manage and brush on taught language, teach new words, determine one's diving into cultural issues or one's consolidating an independent speaker status.

As specified in the digital training module, there are several factors that influence the aim of DR exercises: *the level of knowledge* (linguistic and literary semantic clusters are useful for studying constructions, contexts, leitmotifs and their role in a literary work, (Olaru, 2019)), *innovative exercises* (for example, digital studies of Shakespeare can be done be using the platform devised at the University of Bucharest which includes translations necessary for one to learn the English language; the idea of interdisciplinarity is also developed due to the supplementary functions of the platform which allow one to write new digital Shakespeare narratives and insert one's own interpretations (Nicolaescu and Mihai, 2014), *new teaching perspectives* (intermediality is a new form of research where focus on disciplinarity is lost for the sake of innovation; see Ursa, 2015; Wetzl, 2010). These were also considered on devising the questionnaire and pondering on questions to ask the trainees, as they are paramount in creating interesting modern classes.

Writing was closely linked to the reading exercises. The analysis of the wording in a reading material helps students grasp the structural matters of sentences, paragraphs and whole stories, partial contexts or whole contexts, which contribute to their understanding of writing logic. To study a modern text in detail is «to assume the power (the time, the elbow room) of working back along the threads of meanings, of abandoning no site of the signifier without endeavouring to ascertain the code or codes of which this site is perhaps the starting point (or the goal) [...]; the classic text is incompletely reversible» (Barthes, 2002, 230).

Still dwelling on textual analysis for the sake of understanding writing logic, Jürgen Habermas (2000, 296, *translated into English by Aba-Carina Pârlog*) states that, in a literary text, «elementary verbal actions indicate a structure in which three components intersect: the propositional component for presenting (or mentioning) real states, the illocutionary component for establishing interpersonal relations and, finally, the linguistic component which expresses speakers' intentions». In a narrative work, there are three levels of description: that of stating functions, that of expressing actions and that of narrating (Barthes, 1966, 6); these contribute to our understanding of the story line and the characters' profiles.

Literature helps students mature and understand the complexity of life: «In this golden age of narrative, authors and their public apparently shared the conviction that plots were a viable and a necessary way of organizing and interpreting the world, and that in working out and working through plots, as writers and readers, they were engaged in a prime, irreducible act of understanding, of how life acquires meaning» (Brooks, 1984). Teaching culture through literature widens one's horizon, as Letterio Todaro (2018, 68) also explains: «[...] the promotion of Intercultural education has been sometimes

largely represented by a basic invitation to understand the various dimensions implied in the migration experiences and to board on an ideal journey towards the 'Other' [...]».

Still, some essential guidelines for digital storytelling are necessary so that one may contribute to an efficient use of applications and websites dedicated to this issue and this was also part of the competence/ satisfaction questionnaire as a topic. Digital storytelling guidelines were considered to be the following: (a) beginning to write the story by focusing on something mysterious or interesting for one's students, depending on age; (b) developing the story by selecting an important element for the main story line – a protagonist's defect, the unusual setting of a house, the difficulty of living in a city, etc.; (c) bringing the story to the point where these can be mirrored in such a way as to help one's students understand the positive or negative side of behaving in a certain way – a didactic purpose must be reached; (d) carefully selecting the conclusion or the ending which leaves them with relevant examples of behaviour and alternately some light food for thought, if they are older.

One of the unpleasant parts of dealing with computers when writing, as Andrews (2000, 23) mentions, is the fact that students appear to lose part of their writing skills, especially their spelling or grammatical knowledge because of the automatic digital setting which allows one to correct one's writing without much thinking about it: «it has also made many learners dependent upon spell and grammar-checkers; been over-rated in its effect on narrative writing; limited a sense of the whole work through its window on to text; and, in some cases, led to a deterioration in handwriting quality». Of course, teachers must encourage their students to write with the spelling checker off so that they may have an objective idea about their real level of language and start working on exercises meant to improve it, if that is the case. This can be done through digital storytelling.

There are many applications and websites dedicated to digital storytelling. Some of these can be found at: https://www.teachthought.com/technology/digital-storytelling-apps-and-websites/, but not all of them. The training material referred to Canva, StoryJumper, Storyboard That, Stornaway, Book Creator, Imagine Forest which offer one the advantages of using interactive features while setting the scene of one's story and opening an interesting and imaginative world for students to learn how to master various topics of conversation in a colourful and engaging environment. Exercises based on previously solved DR exercises support memory and intelligence development similarly to revision which has been noticed to help students obtain superior results following the learning process; so they would be quite useful in the teaching-learning process. DR as an activity contributes to the development of one's neuronal web and helps one give a better response to various situations as a result of the constant exercise of looking for answers and finding solutions.

As explained in the training material, if one choses Canva (https://www.canva.com/), for instance, one can do a storytelling exercise as

the one proposed below which is very much useful from several points of view, emphasizing not only the importance of understanding the reading and writing processes, but also that of understanding the importance of DL, task planning and creative expression.

#### Exercise:

• Create a short story on Canva for one of the grades you teach by focusing on 6 vocabulary items important for your lesson. Pay attention to the three stages of a story (beginning, middle (climax) and ending).

In the case of StoryJumper (https://www.storyjumper.com), the interface is different than that of Canva, but the story can take on the form of a book which students can browse in order to learn whatever it is that their teacher has in mind. The visual delight of the application is obvious when one notices the variation of digital settings that one can create. A useful exercise for teaching grammar, for instance, would be the one below:

#### Exercise:

• Use StoryJumper to create a story for teaching past simple to young students. (*Tip: Repetition helps them remember verbs more easily*).

Other web applications that are quite popular in the field of education are: Storyboard That (https://www.storyboardthat.com/storyboard-creator), Stornaway (www.stornaway.io), Book Creator (https://bookcreator.com/). A link can be created between Canva and Book Creator, which makes it easier to use them. Images can be downloaded from various apps and one can create interesting real-life background stories. The end result has the form of a digital book, as expected.

Other applications, perhaps less used, but equally good, are: Imagine Forest (https://www.imagineforest.com/how-it-works, which has several options – story builder, basic creator, chapter book, picture book, poem/ poster, story generator, at times, with spelling mistake suggestion; so one must be aware which messages to choose, especially if one selects a pre-defined story beginning), Elementari (https://el-ementari.com/, which is simplistic, but hard to use on creating a story; it does not possess the freedom of creation offered by *Canva* or *Storyboard That*, but it is useful for minimalistic versions – see the adapted Little Red Riding Hood fairytale: https://elementari.com/stories/TgF70IDcM7), Pixton (https://www.pixton.com/create-a-storyboard) and Milanote (https://milanote.com/product/storyboarding). The last two are also useful, but they are rather business-oriented and are not free.

Digital practice in the English class can be done by connecting with native English speakers in order to develop students' language skills (Wetzl, 2010) and support greater understanding of the reading content. In the same class, exercises based on previously solved reading exercises support memory and intelligence development similarly to revision which has been noticed to help students obtain superior results following the learning process, as earlier explained. The teacher has no control over authentic literary texts unless they are short and particular words, constructions or phrases are taken out so that the texts may be more suitable as a language level. However, this contributes to the creation of a distorted impression of the original author. Advantages and secondary results of using reading exercises in class are that students become more fluent; they understand more notions, concepts and cultural differences. They may become more confident in their ability of using the language they learn, but also more organized in terms of content structuring. Reading can be considered a marker of intelligence. It shows interest in intellectual activities and an innate curiosity which can only lead to a better understanding of the surrounding world.

The implementation of the project learning platform was also discussed during the DILECTINGS workshop held on the 3rd of October at the West University of Timişoara, which was attended by 20 participants in person and 3 online participants. The workshop was opened by two representatives of the WUT team management, Associate Professor Cătălina Ancuta, Vice Rector Ph.D, Vice-Rector for Internationalization and Diaspora, and Professor Dana Percec, Director of the Council for Doctoral Studies of the West University of Timisoara, and by Dr. Raffaella Leproni. Dr. Ancuta welcomed the DILECT-INGS consortium on behalf of the WUT Rector, Professor Marilen Pirtea, and of the WUT management team, emphasizing the idea that the «WUT appreciates the project», because «it is promising and it is in line with the mission of the WUT – doing excellent research». Dr. Ancuta emphasized the idea that the connection between university and schools is essential in this projects. Mrs. Vice-Rector mentioned the activities of the DILECTINGS consortium as inscribed in the internationalization policy of the of the WUT, an important member of the UNITA international consortium.

Professor Dana Percec emphasized the role of the project in the context of «the 4th revolution of the digital age», the digital revolution, focused on creating networks. Professor Percec referred to DILECTINGS as a project about creating and consolidating networks between universities, schools, students and postgraduate students. In her talk, Dr. Raffaela Leproni spoke about the role of education, technology and competences in contemporary European education. According to Dr. Leproni, the concept that «education is the best service we can provide to people is an idea which defines the European identity».

In the following session, chaired by associate professor dr. Aba-Carina Pârlog (WUT), the university partners presented the 8 modules developed on the DILECTINGS platform. The next session, chaired by associate professor dr. habil. Marius-Mircea Crişan (WUT) was dedicated to the feedback from school partners. Each school partner had a 20-minute presentation. The participants from Istituto Comprensivo Vitruvio Pollione, Colegiul Național de Artă Ion Vidu, Institut Miquel Martí i Pol, The King's Hospital and Free School of King Charles the Second presented their perspectives on the courses attended on the DILECTINGS platform and offered a very useful feedback to the partners. Dr. Bilal Ahmad (Learnovate – TCD) offered an extensive presentation of – TCD toolkit, explaining its structure and development, and pointing to its usefulness in teaching activity. The feedback for teacher was encouraged.

The second part of the day was dedicated to the practical workshop for school partners – chaired by Anna Raimondi, teacher and Cornelius O'Kelly consultant at Istituto Comprensivo Vitruvio Pollione, Lavinia Stănilă and Mariana Vadai, teachers at Colegiul Național de Artă Ion Vidu. The practical workshop for school partners gathered participants from four countries: Italy, Romania, Ireland and Spain. Two e-Twinning ambassadors joined the meeting online and participated in the discussions.

In conclusion, the WUT team has observed that the trainees were actively involved in the learning activities on the DILECTINGS platform, as well as in the discussions during the workshop in Timişoara. This enthusiastic attitude of our colleagues in the pre-university education system will contribute significantly to the success of our project, because the teachers will transfer their abilities to work with digital literature to their pupils, and we hope that this will motivate the future generations to read digital literature with the same passion as the printed texts have been read over the centuries. In our opinion, the interest in reading digital literature is complementary with the passion for the printed text. The pupils need to understand both ways of reading literature, and the society needs well prepared teachers, whose skills and passion may motivate the interest in reading of the forthcoming generations.







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# Elisabet Martí, Mercè Coromina\*

Schools' contribution – "Be whatever you want, become whoever you are" eTwinning project

#### 1. Project description

The project "Be whatever you want, become whoever you are" was conceived as part of Erasmus+ "DIgital Literature Educational Competences for Teachers: Intercultural iNclusive Good-practices for Second-lingual learning" which aims to promote, expand and sensitise Digital Literature Literacy (DLL) and Literature Digital Reading (LDR) skills across the schools in the EU. Starting from the 2030 Agenda, and focusing on "Inclusion and Diversity", schools selected the novel "Wonder" by R. J. Palacio to deal with these delicate topics. Wonder guided the students to identify with diversity, agreeing that everyone is different and unique and this is something really important to be celebrated. In collaboration with the SN teacher, it was possible to create a path towards understanding, openness and reflection on issues related to diversity and it was achieved in L2 primarily through the shared digital tools together with their own shared values and culture(s). Through the adoption, evaluation and exchange of specific digital skills both with educators and in primary and lower secondary school students; the foremost objective was to facilitate the transition from primary to secondary education and embed a spirit of collaboration while promoting access to literature and also leading to the development of other related interdisciplinary subjects as well. The schools involved in the project supported the work of the Erasmus+ DILECTINGS project, providing essential data for the evidence-based research approach.

#### 2. Activities and students' outcomes

## 2.1 Step 1 – Getting to know each other

This was the initial phase of the project. In "Getting to know each other", students worked together in a collaborative Padlet where everyone introduced themselves using [their] L2. Students also got the opportunity to practise their Reading and Writing skills in both the target languages of English and French.

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# 2.2 Step 2 – My school

At this next step, students scripted and produced videos about their own schools. All the other schools except for the Italian children used French. They took photographs and recorded the audio of their scripts then edited the final videos. The videos were then shared and discussed in class, allowing students to talk about differences and similarities between the participating schools and while comparing constructively their educational environments.

# 2.3 Step 3 – Wonder by J.R. Palacio

The schools chose the adapted version of "*Wonder*" by R.J. Palacio either in English or French as our base text.

All schools first watched the film "*Wonder*" and the shorter, abridged "We're all wonders". Students discussed the film in class and gave their impressions and brainstormed some really cool ideas on what the apparent and underlying themes of the film are.

Each school became an "expert" on a particular topic co-related to the film and prepared a presentation on their topic. Romania was expert on *family*, Spain was in charge of *friendship*, Ireland worked on *owning a pet* and finally Italy produced a *helmet* i.e. protecting yourself.

Students used a range of digital technologies to work on the various activities in this project and the final piece of work was left to the discretion of the individual partners in order to take account of the range of L2 ability, age and digital competence. This is important to note as the vagaries and vicissitudes of conditions in each country, culture, region, socio-economic circumstance, class size, school size and admin support may be factors to consider while setting up similar, future projects.

The project culminated in a piece of creative writing based on the book and their assigned theme.



ROMANIA: Romanian students were happy to reflect on the topic of FAMILY in relation to the challenges of the modern world and they produced materials on STORYBOARD-THAT that reflect their enthusiasm and keen interest in using different platforms in order to improve their digital writing skills and their critical thinking skills in order to form their own arguments in relation to the theme they had to ex-

plore. In the end, the students wrapped up their impressions on the messages and ideas presented in the book "*Wonder*" by R.J. Palacio with a piece of creative writing (an essay, a story or a diary page) about friendship, family, gratitude, and what it means to be supportive, sympathetic and present in the lives of their families and friends. They wrote their texts in English and in French and they uploaded them on a Padlet board entitled We are all wonders.



SPAIN: By means of expert groups, students delved into what FRIENDSHIP is throughout all the characters in the book and every group made an oral presentation about it. Students also analysed the type of friend each student is throughout a simple quiz. They happily discussed the answers. Then, they all thought about what friendship really means and what a real friend is contributing to a JAMBOARD.

Their final piece of creative work consisted of making calligrams of the face of each character in Wonder with words related to them, along with short sentences to be included in the mouth explaining the nature of friendship.



IRELAND: Irish students thought about, discussed and presented their ideas on what makes them feel good about themselves. Each student took a "tile" from a larger picture and wrote their thoughts on the tile. When put together, the tiles made a complete image of Auggie Pullman from Wonder to be displayed in school on the Wellness noticeboard.



ITALY: From the outset the process of engaging with the text to the creation of the helmet the children were involved in a naturally spontaneous way as the first thing to consider was exploration of diversity, acceptance and inclusion which because of their age group, were not ordinarily topics covered in the standard yearly curriculum. That said, it was by no means beyond their reach nor did they fail to grasp the core

objectives and the why's and how's of moving towards their outcome largely due to the fact that there are a significant number of pupils with special educational needs.

We warmed up with role plays using the "The Cards of Kindness Padlet". Once the helmet was introduced then we moved onto 'coding' the helmets and using 'PYSSLA' to make a personalised key-ring of the helmet ( a type of precursor) this then led us on to creating the full size paper maché helmet. At this point we joined our partners online and the children performed the song Everyone Belongs where they profoundly wore our helmets to great applause. Finally, using Canva, we made our own digital book which also included a mini-quiz for comprehension to conclude.

The project met schools and students from totally different environments, cultures and countries, and joined the dots of a "red thread" of human values around the world. The project was designed in such a way, that students and teachers interacted with their partners, by exchanging information, working on common topics, in order to produce innovative materials which have social and educational impact (exchanging emails and participating to online video calls), allowing students and teachers to compare and contrast different educational systems, to inspire from peers and in the end to render more interesting and engaging language classes; at the same time students and teachers could equally improve their ICT skills by experimenting with technology through hands-on experiences. Students were also able to improve their communication skills by speaking about family, pets or friendship in their country, with their classmates, including through real time video conferences, with the other students of different ages involved in the project.

The project was aimed at making people understand that, beyond cultural and personal differences, people are very similar. In other words, students involved in the project have developed tolerance and acceptance in a fascinating and ingenious manner whilst also building their communicative confidence in their L2 and working on their digital literacy. Overall, the project successfully integrated digital tools with literature to promote language skills, cultural understanding, and a collaborative spirit among students and educators in the EU.

# 3. Teachers' feedback

Scan the following QR code to listen to some teachers' feedback about the whole project.



# 4. Students' feedback

Scan the following QR code to listen to the students' opinion about the eTwinning project.



# 5. Twinspace platform

For further information on this project, visit https://school-education.ec.europa.eu/en/etwinning/projects/be-whatever-you-want-become-whoever-you-are/twinspace to access the Twinspace Platform.

# Bilal Ahmad<sup>\*</sup>, Úna Murray<sup>\*\*</sup>

# Digital Resources and School Toolkit

The development of digital competence, that is, literature reading skills among schoolteachers and students is of high importance in European schools. A promising way to achieve this is through providing teachers with access to resources and digital toolkits that follow a comprehensive learning sciencebased approach to assess their current skill levels. This approach provides them with learning and exchanging skills along with planning their daily activities, that is, their lesson plans. However, it appears that there is a lack of solutions that cover these aspects as a unit, specifically solutions that cover such key dimensions of digital literature skills as digital comprehension, research skills, multimodal literacy and critical evaluation.

While some general-purpose tools are available, such as Europass based on DigiComp 2.2, they are not specifically tailored to teachers' needs and rely on a siloed approach of self-reflection and access to learning resources. In addition, they do not include the key aspect of discussion and collaboration with peers. Existing research supports the idea that teachers learn from each other more effectively through collaborative efforts than through individual learning methods. Collaborative learning among teachers not only enhances their professional development but also fosters a supportive learning environment that can lead to improved teaching practices and student outcomes.

Even for teachers, tools (like SELFIE) appear to be individualistic with limited opportunities of working together. For example, through SELFIE, teachers can invite other teachers to design their professional learning paths, which is sporadic and lacks continuity. Another common theme that appears to be shared by existing offerings is their once-off nature, and lack of motivation to use it repetitively and as part of daily work and teaching routine.

This advocates for the need to have a solution where teachers have the opportunity to get continuously assessed, reassessed on specific aspects of digital literature reading skills and provide personalised learning resources based on a specific point-in-time skill level. Moreover, they should be supported by allowing them to collaboratively develop lesson plans (using pre-built templates tailored to their work context and thoroughly tested Generative AI) and exchange their skills with other teachers. Also, the opportunity to access learning resources developed by peers via the solution, should not be underestimated.

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To conclude, the absence of such a dedicated toolkit for this purpose hinders the effective integration of digital literature reading into the curriculum, limiting the educational outcomes for both teachers and their respective students.

This chapter, therefore, explores the DILECTINGS Toolkit, a digital platform designed specifically to enhance Digital Literature Literacy (DLL) and Literature Digital Reading (LDR) among primary and post-primary preservice and in-service schoolteachers in European schools. By aligning its features with the principles of Communities of Practice (CoPs), the Toolkit fosters a collaborative and supportive environment conducive to professional development and pedagogical improvement around DLL and LDR for teachers. This chapter describes the Toolkit's evolution, functionalities and their relation to established educational research on CoPs.

#### 1. Introduction

The concept of Communities of Practice (CoPs), introduced by Lave and Wenger (1991), has been instrumental in understanding how groups with shared interests engage in collective learning and knowledge improvement. This chapter investigates how the DILECTINGS Toolkit, a web-based platform for primary and post-primary school teachers, embodies the core elements of CoPs to promote DLL and LDR skills. The Toolkit exemplifies Mishra and Koehler's (2009) TPACK model integrating pedagogical content knowledge and technology and was developed collaboratively with teacher educators and in-service teachers from Ireland, Italy, Spain and Romania. It enables pre-service and in-service teachers, as well as teacher educators, to assess and reflect on their digital literacy (focusing on DLL/LDR), access personalised resources, create online lesson plans, and share these plans with colleagues.

The rest of this chapter is structured as follows. Section 2 explains the rationale for developing this online Toolkit and its roots within educational research, its usability, and its role in fostering an online community of practice. Section 3 describes the evolution and development of the Toolkit; Section 4 describes each of the four elements of the Toolkit while Section 5 examines the technical aspects of the Toolkit. Section 6 presents the evaluation of updated toolkit and the chapter concludes with Section 7 which summarises teacher feedback and insights into future developments.

## 2. DILECTINGS toolkit – Developing a community of practice

## 2.1 Rationale

From the outset, the DILECTINGS Toolkit aimed to create a Community of Practice (CoP). CoPs are defined by three key characteristics: domain, community, and practice. These elements combine to create a shared area of interest, engagement in collective activities, and the participation of members as practitioners (Wenger-Trayner, 2015). With the advent of digital technologies, CoPs have extended into the online realm, creating OCoPs. These online communities maintain the core principles of traditional CoPs while leveraging the advantages of digital communication and collaboration (Wing Lai et al., 2006).

However, online CoPs also face additional barriers that Zinger et al. (2017) refer to as first order barriers (FOBs). Such barriers are usually associated with factors external to the teachers such as broadband, internet access, hardware access etc. (Ertmer, 1999 as cited in Zinger et al. 2017). The DILECTINGS Toolkit was developed to minimise such potential difficulties (see Section 4).

Other inhibitors collated by Fontainha and Gannon-Leary (2008) to successful online learning communities, include the lack of transparency in school activities related to the network, lack of interest by colleagues and schools, and no internal or external recognition (as cited in Scimeca et al., 2009, p.482). Graham and Fredenberg (2015), also found that the participants' negative attitude to technology and their ability to work towards goals are more important than the technological aspects. This is what Zinger et al., (2011) refer to as 'second order barriers'. Such barriers are more complex and more challenging than FOBs as they involve teachers' beliefs and values, their self-efficacy, and their attitudes towards the use of technology in the classroom. In this regard, certification of completion of the seven modules to develop digital literacy skills (as outlined in Chapter 3) was included to address this challenge, which is in line with the core principle of DILECTINGS Toolkit.

Van Lier (2000) defines affordance as opportunities to learn rather than input. Communities, whether online or otherwise, afford multiple opportunities for learning. They allow participants to increase cultural awareness; awareness of globalisation; foreign language skills; inclusivity; globalisation; school culture; professional development of the teacher, self-efficacy, etc. (Vescio et al., 2006; Cresswell, 2009; La Velle, 2020 etc.) The affordances of engaging in this project are perfectly illustrated by the teachers and the students in Chapter 5 of this book. Additionally, it was noted at the beginning of this project that an over emphasis on specific topics (such as culture and developing foreign language skills) as a rationale for participation in a community of practice like eTwinning can lead to an unequal development of other subject areas. Gabjek (2018) describes how the project topics undertaken by Polish eTwinners tend to focus on culture in a very broad sense or on the environment, with teachers of languages more active than teachers of non-linguistic subjects. This coincides with the data of Cassells et al., (2015) where 18% of topics focussed on modern languages for primary and second level (p.  $5\overline{3}$ ). The DILECTINGS project takes this into consideration. Its unique emphasis on Digital literacy and Digital Reading skills rather than language through its choice of the novel 'Wonder' (as described in Chapter 5), illustrates how an

online community of practice can extend beyond linguistic boundaries and learning.

In addition, Vescio et al., (2008) summarise two benefits of participation for the classroom:

- 1. Participation in learning communities impacts teaching practice as teachers become more student centred; teaching culture improves because the learning community increases collaboration; there is a focus on student learning, teacher authority and continuous learning.
- 2. When teachers participate in a learning community, students benefit as well (p. 88).

Darling-Hammond and McLaughlin (1995) also argue that professional development should provide opportunities for teachers to engage in both teaching and learning, fostering new visions of what, when, and how teachers teach and learn. In addition, Dille and Mørk Røkenes (2021) highlight two main factors that are important for the content of OCoPs, Flexibility and Relevance. Flexibility emphasises the complexity of asynchronous or synchronous spaces and physical or online meetings, and Relevance emphasises a tight connection to the teachers' practice at their workplace. Therefore, the integration of features that promoted collaboration, flexibility and relevance were integral to this Toolkit and sparked the inclusion of shared self- and peer-reflection tools and communication opportunities within the Toolkit.

The DILECTINGS Toolkit is hosted on the eTwinning platform. Being part of this large Community of Practice that is eTwinning not only provides wider and diverse participation, but it also offers teachers and students a safe forum for collaboration. The positive impact on meaningful learning is also echoed by Kearney and Gras-Valázquez (2018). There are dual benefits of participation from the perspective of the teacher and of the student. From the teacher's perspective CoPs such as participation in eTwinning projects facilitated through the Twinspace are seen as: «an invaluable tool for teachers to gain management competencies such as endurance, flexibility, time management and evaluation skills. They learn how to integrate new media and ideas into their inquiry-based learning lessons. Furthermore, they also need to selfevaluate and gain from their colleagues [...] and their pedagogical knowledge.» (Heindl, 2018 as cited in Galvin et al. 2021) Involvement in eTwinning activities is also linked to the improvement of teachers' perceptions about their digital, pedagogical, and collaborative competences (Pateraki, 2018).

## 2.2 Conclusion

The DILECTINGS Toolkit addresses many of these challenges in its de-

velopment. It allows users not only to self-evaluate their own digital competence through assessment tools and access personalised suggestions for professional development, but it also promotes collaborative learning through self-reflection and feedback on uploaded resources by other teachers. The next section describes the DILECTINGS Toolkit's collaborative evolution features, aligns them within the theoretical constructs of CoPs, and describes how the Toolkit addresses the challenges. The data referenced in the next section is gathered through the platform's documentation, user feedback, and relevant literature on educational technology and CoPs.

## 3. Evolution of DILECTINGS toolkit

Research highlights the critical importance of leadership for the success of CoPs. Internal leadership stems from teachers or experts who facilitate CoPs (Wenger et al., 2002; O'Dowd, 2013) and from teachers who actively participate and advocate within their school community or on a national level (Scimeca et al. 2009). The DILECTINGS Toolkit was developed during project result PR3 of the DILECTINGS project by Learnovate and TCD and emerged through collaboration of teacher educators, teachers and technical experts across four counties.

The following steps were undertaken as part of its development. As a first step, a 'needs first' approach was taken. This comprised a 'Jobs to be done' workshop conducted with 15 participants (primarily teachers from Ireland, Romania, Italy and Spain). The analysis of this workshop led to creation of an array of artefacts which included teacher persona, ranked jobs to be done in order of importance, 'How Might We' statements, and initial user flow with the Toolkit. However, two themes emerged as critical. These were teacher persona and the elements that were perceived as essential in a Toolkit. This firstly resulted in a clear understanding of the profile of potential users. As illustrated in fig. 1, the emergent persona of the teacher who would use this platform is a language teacher aged between 38-43 and is motivated to integrate technology into their teaching.



ge:	A8 – 43
b:	K12 teacher, most likely a language teacher
ech:	Comfortable with tech; uses e.g. Google Classroom, Kahoot, YouTube, MS 365 & Teams, Miro, PowerPoint etc. for work. Familiar with apps such as Duolingo, Wordwall, MentiMeter, etc.
ersonality:	She is an extroverted & motivated teacher, anda while busy, she is also empathetic & flexible. She is friendly & charismatic, & knows what her students need & what they understand tech-wise. She can be frustated by poor WI-FI & worries about diversity.

Fig. 1 – Emergent Teacher Persona



Fig. 2 – Ranked Jobs

Secondly, an analysis of features preferred by workshop participants was conducted. This led to a categorisation and ranking of these features into Important, Essential and Extreme (see fig. 2). With the help of the ranked jobs, initial wireframes (see example wireframe in fig. 3) were developed and shared with DILECTINGS partners for feedback. This feedback was then used to develop the first version of the application. This was evaluated with System Usability Scale and an updated version of the Toolkit was developed.



Fig. 3 - Wireframe

The Toolkit was first launched in September 2023 and made accessible via the URL: https://www.dilectings.learnovatecentre.org/ and has undergone two iterations to date. The first release was based on initial requirements of the project with an assessment component and basic lesson plan structure. This iteration was demonstrated to the partner organisations and schools in the Transnational Project Meeting in West University of Timisoara, Romania on 3rd October 2023. The demonstration was followed by the administration of System Usability Scale (SUS) survey to finetune the user-interface and content (an open-ended question was also included to give feedback). The analysis of this survey revealed an average SUS score of 74.5, which is above the scale of good, along with suggestions for improvements of existing features. Some of these were updates in the user experience and Results page. Here is an example quote by one of the participants: «as for the results of the assessments, we can present them clearly and concisely using charts or tables to highlight the strengths and areas for improvement of the Toolkit. This way, teachers can easily understand the results and use them to make informed decisions about which resources to use».

Further input from the project's Lead partner (RomaTrE) and from the partners in the School of Education, Trinity College Dublin, resulted in additional updates to the features of the User Home Page with metrics, Assessment Dashboard, Results and to the Lesson plan template, which was extended to allow teachers to add more sections. In addition, the learning resources were personalised based on the current proficiency level of the teacher on each of the five dimensions of DLL/LDR. Subsequently a second version of the Toolkit was released and demonstrated to teachers during TPM in Dublin in June 2024. Minor changes were suggested i.e. making lesson plans private, giving teachers the option to select from all countries. After these updates, the application was evaluated via an extended online survey (https://forms.gle/L2HBMtLzP89NDMgWA) by teachers in the project's partner schools.

## 4. The DILECTINGS toolkit

As mentioned above, the DILECTINGS Toolkit has a dual purpose: it supports teachers in enhancing their digital literature literacy (DLL) while also extending their literature digital reading (LDR) skills. Each of the Toolkit's functionalities is closely aligned with the principles of Communities of Practice (CoPs), providing a structured, interactive, and collaborative environment for teachers' professional development. The key features of the Toolkit include user registration and onboarding, a comprehensive dashboard, self-assessment tools for multiple dimensions of DLL/LDR, personalised learning resources, lesson planning features with the option to keep them private or share with others, and skills exchange capabilities. This section describes each of these features.

## 4.1 Navigating the Toolkit

#### 4.1.1 User Registration and Onboarding

Teachers can register on the platform via the DILECTINGS Login page https://www.dilectings.learnovatecentre.org/login, by providing their email and agreeing to the privacy policy. In addition, they can provide some optional information for a personalised experience and for research purposes e.g. their teaching level, subjects they teach etc. The onboarding process is designed to be intuitive, guiding users through the initial setup and familiarising them with the platform's features.

## 4.1.2 Dashboard

Upon registration, teachers are presented with a user-friendly dashboard (fig. 4) that provides a concise overview of the Toolkit's key features.

- 1. Teachers can click on the Assessment icon. This allows them to assess their DLL and Literacy Reading Digital Skills (see figs. 5-7)
- 2. The dashboard includes call-to-action buttons that direct users to start their personalised Toolkit experience.

This interface facilitates navigation and encourages teachers to explore the various resources and tools available to them. There are four options as depicted below.



Fig. 4 – Example of personalised assessment tracking

# 4.1.3 Self-Assessment

The self-assessment feature allows teachers to evaluate their DLL and LDR skills across five categories. These are 1. Digital Literacy Reading skills; 2. Digital Comprehension; 3. Digital Research Skills; 4. Multimodal literacy, and 5. Critical Evaluation.



Fig. 5 – Sample image of Assessment information from DILECTINGS Toolkit



Fig. 6 – Sample image of Assessment Question from DILECTINGS Toolkit

When an assessment is completed a report card is presented to indicate their level and areas of strength, and where improvements are required (highlighted in red colour). Additionally, teachers can review their assessment history and track their average scores for each category, enabling continuous self-improvement and reflection on their progress.

Overall Confidence Score : 73%   Level : Intermediate				
Technical Proficiency	Reading Strategies			
Information Evaluation	Digital Tools and Platforms			
Multimedia Interaction	Motivation and Lifelong Learning			
Email Results Download PDF	Resources Exchange Skills Dashboard			

Fig. 7 – Sample image of Report Card from DILECTINGS Toolkit

# 4.1.4 Learning Resources

Based on the results of the self-assessment, the Toolkit then provides the teacher with a personalised set of learning resources tailored to the teacher's current skill levels. These resources include five specific learning materials and access to eight modules that were developed as part of the PR2 project (see Chapter 2). Teachers are also offered a selection of online educational resources to explore independently. These include digital libraries and reading applications to further enhance their DLL and LDR competencies (see fig. 8).



Fig. 8 – Sample image of individualised learning resources from DILECTINGS Toolkit

Several types of DLL and LDR resources are recommended to teachers. These are described below.

#### Educational Websites

These are platforms offering a wide range of educational content including interactive lessons and multimedia resources. Some of these may cover various subjects beyond just DLL/LDR, aiming to supplement classroom learning in European primary schools.

#### – Digital Libraries

These are digital collections of books, articles, and other literary works available for borrowing or purchase. Some of these focus on children's literature.

#### – Digital Reading Apps

Mobile or desktop-based applications designed specifically for reading ebooks, magazines, and other digital publications. Common features of these apps are adjustable text size, night mode, bookmarks, and some of these have integrated dictionaries for language learners.

#### - Teacher Communities

These are online fora or social networks where educators share resources, lesson plans, and advice. Such communities can be invaluable for finding and exchanging materials related to teaching languages and promoting digital literacy among students.

#### 4.1.5 Lesson Planning

The lesson planning feature enables teachers to create comprehensive lesson plans tailored to the five categories of DLL and LDR (see fig. 9 below), but it is not limited to these categories. Each lesson plan includes customisable sections that align with teachers' expectations and requirements. For example, teachers can insert relevant information under the following sections (see fig. 10):

- Digital Learning Objectives
- Learning Intentions for Lesson
- Potential Challenges or Difficulties
- Universal Design for Learning
- Resources
- Steps of Lesson
- Instructional Strategies
- Assessment Strategies
- Extension activities

They can then generate a printed version of their lesson plan and can edit, download, and email their lesson plans as they wish. They also have the option of sharing this plan with others and attach related files to it.

	Generate Lesson Plan	
Here is your List of Lesson Plans		My (Created Lesson Plans) All (Only Public)
	Digital Research Skills for	
	Subject: Default Duration: 00h48m	
	View More Updated on 28/05/2024	
	ti the second s	

Fig. 9 – Sample image of Lesson Plan page from DILECTINGS Toolkit

Generated Lesson Plan					
romanian language for 4th standard					
Grade Level: Intermediate	Subject: <b>Default</b>	Duration: 01h00m			
	Share with others / Make it Public				
Digital Learning Objectives Default	Learning Intentions for Lesson Default Intention	Potential Challenges or Difficulties Default difficulties			
Universal Design for Learning Deafult ud!	Resources Default	Add in Files You can choose more than one file to upload Vou can choose more than one file to upload Upload file			
Steps of Lesson Default Steps	Instructional Strategies Default	Assessment Strategies Default			

Fig. 10 – Sample image of Lesson planner template from DILECTINGS Toolkit

When teachers have taught their lesson, they then can engage in self-reflection (see fig. 11) This feature allows teachers to note what worked well and what could be improved in their lesson. The reflection component encourages teachers to document their insights and share them with the community, facilitating collaborative improvement and knowledge sharing.

Reviews					
Reflect Here	Previous Reflections				
1. What     •       worked     •       2. What     •       could have     •       worked     •       better:     •	<ol> <li>Pros: Very Comprehensive, all sections were useful with the ability to add related files</li> <li>Cons: Allow to add section of my choice</li> <li>Suggestions: UI upgrades</li> <li>Reflected on : 24/07/2024</li> </ol>				
	Close				

Fig. 11 – Sample image of Reflection template from DILECTINGS Toolkit

4.1.6 Skills Exchange

The 'Skills Exchange' feature as seen in fig. 12, facilitates peer-to-peer interaction and knowledge sharing among teachers. Through this feature, teachers can search for other educators on the platform, send messages to ask questions, and endorse each other's skills in specific categories. This collaborative element reflects the importance of collaboration in the development of CoPs as evidenced in research. This feature of the Toolkit facilitates a supportive community where teachers can learn from one another and collectively enhance their DLL and LDR practices.

Search		Message		Endorse	
		La Rita	*****	Rita	****
test	*****			Digital Literature	*****
Leache	*****	Type your message ner		Reading Skills	
LE ELI	****	s	nd	Digital Comprehension	****
Rita	****			Digital Research Skills	*****
-					
				_	

Fig. 12 – Sample image of Skills Exchange feature from DILECTINGS Toolkit

# 5. Technical concerns and usability

The following Section outlines some key issues in relation to the usability of the DILECTINGS Toolkit and addresses technical concerns of the platform.

# 5.1 User Privacy and Data Security

Protecting and managing user data, especially when it involves personal and educational information, is very important in any application. MERN stack (MongoDB, Express.js, React.js, Node.js) has been used to build the application and Docker containers were created and then hosted on AWS Lightsail. Development of the DILECTINGS Toolkit adopted the following strategies and best practices to ensure data security and privacy

# 5.2 Data Encryption and Secure Password Storage

User passwords are secured using bcrypt algorithm and never stored in plain-text format in the database. HTTPS is used for all communications between the client (web interface of the DILECTINGS application) and the server to prevent man-in-the-middle attacks.

## 5.3 Access Control and Authorisation

Strict access control measures are in place to ensure that only authorised users can access personal and educational data. JSON Web Tokens (JWT) are used for authentication and authorisation in the Express.js backend.

# 5.4 Input Validation and Sanitisation

All incoming data on this DILECTINGS Toolkit such as user registration, sign in, lesson plans etc. are validated and sanitised to protect against SQL injection, XSS (Cross-Site Scripting), and other injection attacks.

# 5.5 Technical Requirements

The DILECTINGS Toolkit is a web application and is compatible with most of the modern browsers such as Google Chrome, Mozilla Firefox, Safari, and Microsoft Edge. In terms of screen size, the best experience can be achieved on large monitors i.e. 1920x1080p and laptops i.e. 1280x720p. Responsiveness is achieved via CSS media queries and a flexible layout, so that it provides better user experience between screens ranging between these sizes mentioned. Moreover, by default, these browsers support the latest web standards and offer better performance and security. In addition, most features can be used on some of the large size iPads e.g. Apple iPad pro, Microsoft surface pro. However, it has limited usability for mobile phones.

## 5.6 Support and Help Resources

All features of the DILECTINGS Toolkit are explained in detail as part of onboarding to the platform i.e. when a teacher registers or logs in to the application. Also, contact details of the Principal Investigator and Tech lead are provided on the Privacy Policy Dialogue to provide feedback or report any issues.

## 5.7 Collaboration and Community Features

The creation of a CoP was an important aspect of this project. Therefore, the Toolkit includes a feature whereby registered teachers can search for other teachers on the platform. This feature also allows users to view other teachers' overall DLL/LDR ratings, and users can send an email message with any queries or suggestions they have. The respective teacher will be notified when this message is sent to their mailbox. Moreover, users can also endorse the teacher for five different dimensions of DLL/LDR skills, that is Digital Literature Reading Skills, Digital Comprehension, Digital Research Skills, Multimodal Literacy, and Critical Evaluation. This endorsement allows the user to rate uploaded content from 1 to 5 stars.

Technically, AWS Simple Email Service is used. This allows users to send all types of email and is designed to handle large volumes of emails reliably.

#### 6. Evaluation of Updated Toolkit

The following section outlines the evaluation of the updated version of the DILECTINGS Toolkit by teachers. Participants were given a demo during the Transnational Project Meeting in Dublin (July, 2024) and requested to use it during their typical workday. In addition, they were provided with access to the associated evaluation survey via links and QR code, which they completed after using the Toolkit. This survey remained open from the beginning of July to the end of August 2024. In terms of demographics, 37.5% of participants were in-service teachers, 50% teacher educators, and the rest i.e. 12% were Professors. Their primary duties were language teaching and included subjects such as English, Spanish, German and French, where most of them taught English i.e. 88%. The analysis of the data from this survey revealed that 75% of the respondents are overall satisfied with the Toolkit, as they rated 5/5 for this aspect as shown in fig. 13.



Fig. 13 – Overall Satisfaction of Updated Toolkit (Rating out of 5)

NO	FEATURE	EASE OF USE	FRE- QUENCY OF USAGE	ADDI- TIONAL FEATURE	SUGGES- TIONS FOR FUTURE VERSIONS
1.	Assessment	100% rated 5/5	62.5% reported to use it occasionally	75% rated 5/5 for report card feature	Provide examples on how teachers can use the assess- ment tool with their kids, to pro- mote self-assess- ment on their side.
2.	Learning DLL and LDR Feature	87.5% rated 5/5	50% reported to use it fre- quently	62.5% rated 5/5 for person- alised recom- mendations	For the online li- braries section, we don't have access to the catalogues of the institutions listed. It is possi- ble, of course, to get ideas about publications or books we could read but we can't access them directly.
3.	Lesson Planner	62.5% rated 5/5	37.5% re- ported to use frequently	-	Add more clarity of objectives in planning.
4.	Exchange Skills fea- ture	50% rated 5/5	50% reported to use occa- sionally	-	Feature to view the profile of other teachers.

Table 1 – Overview of analysis of the 2024 Usability survey

87% said that they would recommend the Toolkit to other teachers. Moreover, more than 50% reported that this Toolkit has/will improve their teaching methods and/or DLL and LDR skills. System Usability Scale was also embedded in this survey to compare if any differences in usability are achieved after updating it. Interestingly, even with approximately double the number of participants in comparison with the first SUS evaluation, the median score has significantly increased from 67.5 to 75. This indicates progress towards scale of excellent usability from good. Table 1 gives a detailed breakdown of Toolkit's features and the response against some of the key metrics.

It is evident from this breakdown that teachers found assessment and learn-

ing DLL and LDR features more useful, followed by lesson planner and exchange skills on the platform. Free text comments also offer an insight into how teachers benefited from their use of the Toolkit. Some of these are listed below.

- «[it allowed me to] discover virtual teaching ideas»
- «The Toolkit offers teachers the opportunity to both assess their own DLL and LDR skills and get familiar with the most relevant theoretical aspects related to the topic. Also, while going through the modules teachers get the opportunity to practise and do the tasks, which is another chance to understand and reflect on what to do with their students in order to develop their DLL and LDR skills. What I found particularly useful was the digital assessment module as I understood that it can be done safely, fast, engaging the students in fun, creative activities.»
- «The lesson planner is very helpful and relevant to the planning documents we currently use in our classrooms.».

In addition, most teachers shared the following benefits of the lesson planner:

- It triggered ideas on organising my work.
- It helped me organise my ideas better and fix questionable things.
- It helped me to know what compatible learning modality I will choose.
- It helps the teacher identify all the details that might contribute to the success of a lesson, namely, to analyse the lesson objectives and the activities that are meant to help students improve their digital reading skills.
- «This is very helpful as subject plans for Junior Cycle [in Ireland] also include a reflection section which we review regularly as a Modern Foreign Language department.»

The following quote from one of the participants describes how overall participation in this project has positively impacted their practice:

«I am very proud and pleased to have been part of the project. Also I really enjoyed going through the modules and learning lots of useful things that have improved/changed my teaching, being more open to the use of technology in the classroom and more DLL and LDR teaching oriented.»

In summary, the evaluation of the updated DILECTINGS Toolkit, conducted by teachers during the Transnational Project Meeting in Dublin and until the end of August, revealed positive feedback. The survey, completed between July and August 2024, showed strong satisfaction with the Toolkit, with a very strong likelihood (87%) that users would recommend it to others. Notably, the increase in the System Usability Scale score from 67.5 to 75, indicates enhanced usability. Specifically, teachers found the assessment and learning DLL and LDR features most useful, with suggestions for future improvements. Overall, the Toolkit has positively impacted teaching methods and encouraged the integration of technology in the classroom.

### 7. Conclusion

The DILECTINGS Toolkit exemplifies the principles of Communities of Practice (CoPs) by creating a shared domain of interest in DLL and LDR. It supports community engagement through its interactive features and enhances practice by providing practical tools and resources for teachers. This alignment with CoP principles is crucial for fostering a collaborative learning environment and promoting continuous professional development. The Toolkit also addresses some of the challenges associated with CoPs, such as sustaining engagement and overcoming technological barriers. By being hosted on AWS Lightsail and developed using the MERN stack, it ensures a reliable and accessible platform for users.

In conclusion, the DILECTINGS Toolkit prioritises user privacy and data security by implementing robust strategies and best practices in its development. Utilising the MERN stack and hosting on AWS Lightsail with Docker containers ensures a reliable and scalable infrastructure. By securing user passwords with bcrypt algorithm, enforcing HTTPS based communication, and applying strict access controls with JWTs, the application protects user data from unauthorised access and potential threats. Additionally, input validation and sanitisation guard against common web attacks, further enhancing the security of the platform.

The Toolkit is designed for compatibility with modern browsers and optimised for various screen sizes, providing a responsive and user-friendly experience. Comprehensive support resources, including detailed onboarding instructions and contact information for key personnel, ensure that users can effectively navigate the platform and seek assistance when needed.

The inclusion of collaboration and community features, such as the ability to view and endorse other teachers' skills and send email queries, fosters a supportive environment for professional development. By leveraging AWS Simple Email Service, the Toolkit efficiently manages email communications, facilitating seamless interactions among users. Overall, the DILECTINGS Toolkit stands as a secure, versatile, and collaborative resource for educators.

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