

An aerial photograph of the Golden Gate Bridge, showing its iconic orange-red suspension cables and roadway. The bridge spans across a deep blue body of water, with a coastal town and green hills visible in the background under a clear blue sky. A white vertical bar is positioned on the right side of the image, containing text.

AMPS Proceedings Series 38.2

**Learning . Life . Work**

---

# AMPS PROCEEDINGS SERIES 38

---

California Institute of Integral Studies | CIIS  
10-12 June, 2024

Learning . Life . Work

---

EDITOR:  
Cindy Shearer

EXECUTIVE PRODUCTION EDITOR:  
Amany Marey

© AMPS

AMPS PROCEEDINGS SERIES 38. ISSN 2398-9467

<b>Chapter 11</b>	86
TECHNOLOGY ENHANCED LANGUAGE LEARNING IN HIGHER EDUCATION – THE CASE OF THE EUROPEAN PROJECT QUILL Elisabete Mendes Silva, Isabel Chumbo	
<b>Chapter 12</b>	95
EMPOWERING ONCOLOGY EDUCATION: THE EVOLUTION AND IMPACT OF “E-ONCOLOGIA” IN THE DIGITAL LEARNING LANDSCAPE Deborah Moreno-Alonso, Clara Madrid-Alejos	
<b>Chapter 13</b>	104
PLACE-HACKING THE DESIGN STUDIO: CONTEXTUALISING WORKPLACE PRINCIPLES IN DESIGN EDUCATION Seton Wakenshaw, Julie Trueman	
<b>Chapter 14</b>	112
LEARNING FROM LASSO: TEAM SPIRIT AND THE INTANGIBLE IMPACT OF ATMOSPHERE ON STUDIO CULTURE IN DESIGN EDUCATION Julie Trueman, Seton Wakenshaw	
<b>Chapter 15</b>	121
EXECUTIVE AND ENGINEERING DESIGN: POLYTECHNIC METHODOLOGICAL APPROACH TO ACADEMIC TEACHING FOR THE BUILDING CONSTRUCTION Massimiliano Nastri	
<b>Chapter 16</b>	132
CREATING CULTURES OF INCLUSION: BRIDGING THE GAP BETWEEN WORKPLACE DIVERSITY AND LIFELONG LEARNING Poonam Kakodkar	
<b>Chapter 17</b>	141
STUPOR ITINERIS. TRAVEL AS LEARNING Domenico Antonio Barbuto	
<b>Chapter 18</b>	150
REIMAGINING LATINA: AN INTENSIVE SUMMER SCHOOL TO IMAGINE SUSTAINABLE URBAN FUTURES, OVERCOMING SOCIETAL BIASES AND BRIDGING PAST WITH PRESENT, IN COLLABORATION WITH NON-ACADEMIC STAKEHOLDERS AND THE LOCAL COMMUNITY Luigi Pintacuda, Thomas Trail	
<b>Chapter 19</b>	160
ART FOR WELLBEING: PRACTICE ENGAGEMENT Rebekah Dean, Melanie Wynyard	
<b>Chapter 20</b>	167
PEDAGOGY THAT RUNS THE CURRICULUM THAT RUNS THE WORLD Hirona Matayoshi	
<b>Chapter 21</b>	180
HOW DO WE MAKE? CRAFTING MEANING THROUGH MAKING Aanya Chugh, Hannah Dewhirst, And Jennifer Meakins	

# TECHNOLOGY ENHANCED LANGUAGE LEARNING IN HIGHER EDUCATION – THE CASE OF THE EUROPEAN PROJECT QUILL

Authors:

**ELISABETE MENDES SILVA, ISABEL CHUMBO**

Affiliation:

TRANSDICIPLINARY RESEARCH CENTER IN EDUCATION AND DEVELOPMENT, INSTITUTO POLITÉCNICO DE BRAGANÇA, PORTUGAL; INSTITUTO POLITÉCNICO DE BRAGANÇA, PORTUGAL

---

## INTRODUCTION

Numerous challenges arise in our increasingly globalized and technologically advanced society, requiring constant adaptation to new trends and paradigms. Effective communication in this interconnected world is essential, making language proficiency more crucial than ever. Learning multiple languages significantly enhances work and mobility opportunities. While English remains the lingua franca in business, trade, and social networks, mastering other foreign languages deepens one's understanding of the global landscape.

Developing and implementing bilingual or even plurilingual programmes in schools and universities are crucial in education. These programmes ensure that students are well-equipped to meet the demands of a global society and are better prepared for the world of work. Education indelibly goes hand in hand with the digital context that permeates our lives. Blannin<sup>1</sup> argues that using technology (e.g. iPads) in the early childhood setting can provide personal support to the learners that cannot be given in a busy classroom.

The COVID-19 pandemic also made the world adapt to new working and studying conditions, accelerating the need for online use to connect people and communicate effectively. The digital classroom or workspace became then a reality. However, even before this paradigmatic change occurred, several authors had already defended the importance of learning through technology, specifically in language learning. Robert J. Blake contends that “technology, if wisely used, can play a major role in enhancing L2 learners’ contact with the target language, especially in the absence of study abroad”.<sup>2</sup> Graham Stanley<sup>3</sup> highlights technology’s engaging and interactive features as it can provide a source of authentic language, keeping learners motivated to learn and produce more language. Nerzig Kern also explored the integration of technology in languages for specific purposes. The author contends that through technology and digital environments, “learners learn to collaborate and engage in authentic communication in their professional discourse community and access up-to-date information relevant to their profession”.<sup>4</sup> Li’s work<sup>5</sup> also aligns with this approach, exploring the importance of the online collaborative learning theory as a scaffold for language learning.

It is then paramount to improve the digital literacy of teachers and students to provide them with adequate and proficient learning and working skills so they can face societal challenges. The teaching

and learning of languages for specific purposes thus acquire relevance in a multifaceted labor market, as Kamilla Kraft and Mi-Cha Flubacher<sup>6</sup> contend.

Projects like QuILL emphasize the significance of plurilingualism, including less commonly spoken languages in Europe. These projects promote understanding, valuing, and respecting diverse cultures, highlighting the broader benefits of linguistic diversity in the European context. In addition, the European Union has always struggled to uphold these values, keeping pace with the latest innovation trends to meet language learners' needs. Through its Joint Research Center, programmes like Dig.comp 2.2<sup>7</sup> show evidence of this concern.

The main purpose of this paper is thus twofold. On the one hand, we intend to showcase the intellectual outputs of QuILL-Quality in Language Learning – a European project funded by the European Commission, running from March 2021 until February 2023. The project's three accomplished intellectual outputs (IO) aim to enrich the digital literacy of higher education lecturers to bolster their language instruction in Languages for Specific Purposes (LSP). Moreover, it furnishes higher education language lecturers in LSP with a comprehensive collection of 385 high-quality Open Educational Resources (OER) meticulously identified, tested, evaluated, and validated across 18 languages (IO1). Lastly, the project addressed the escalating demand in the job market for specialized training in LSP coupled with digital technologies, underscoring the significance of IO2 and IO3 as invaluable resources offering practical training recommendations and best practice guidelines. On the other hand, concurrently, we aim to show evidence of the sustainability of the project, highlighting its major strengths and potentialities in the current educational context.

### **The context: unravelling solutions for Digital Education Readiness**

In the wake of the COVID-19 pandemic, and without a warning, the world had to adjust to a new reality where face-to-face encounters were not possible for at least two months or more, depending on the lockdown policies of each country. This paradigmatic change had drastic effects on people's socialization rules, challenging, consequently, all walks of life.<sup>8</sup> The education sector was not an exception. It had to deal with unexpected situations, putting forward unchecked strategies, experimenting with digital tools, assessing the results as time went on, and adjusting whenever needed. This whole new teaching and learning experience unveiled not only fragilities and needs but also strengths and potentialities. The latter highlights the power of digital technologies in a world already driven by many digital tools as an effective means of communication in addition to the capacity to shorten distances and, therefore, bring people together. However, the former emphasizes the still existing frailties related, for instance, to the still short number of people knowing how to use and apply digital technologies effectively. A myriad of technologies makes it somehow difficult to cope with them all. In the face of this challenge and trying to offer solutions to this specific problem, the European project QuILL – Quality in Language Learning (2021-2023) was approved in the scope of the call 'Strategic Partnerships for Digital Education Readiness'.

The project intends to provide higher education lecturers and students with digital technology-based teaching resources to support them in their teaching and learning. Through the QuILL portal, more than 360 teaching and learning resources are readily available, catering to lecturers in higher education across 18 European languages, with a specific focus on Languages for Specific Purposes (LSP). Moreover, the project has developed an online training package designed to equip educators with valuable insights into identifying, utilizing, and creating open educational online resources (OER) for instructional purposes. The culmination of the project's efforts is manifested in its third intellectual output, a publication containing essential guidelines produced collaboratively by project partners, involving experts in language learning and digital pedagogy. We shall look at these 3 IO in more detail next.

## **Methodology**

The QuILL project intends to assist higher education lecturers in languages for specific purposes providing them with adequate and effective information so they can develop digital literacy as far as teaching and learning languages is concerned. The methodology used during the project was grounded on a collaborative approach, with all the project partners involved having a share of responsibilities and work, namely Károli Gáspár University (Hungary), University of Bologna (Italy), Vilnius University Department of Philology (Lithuania), Uni Cuza, Dept of Language Learning, (Romania), Universidad de Cordoba (Spain), Pixel (Italy) and Polytechnic Institute of Bragança (IPB) (Portugal). The latter coordinated the project.

As such, cooperation and collaboration are the key principles defining the main methodologies adopted during the project to reach a common goal, much in line with what Elizabeth argues: “Collaborative capability is only truly put to the test when you make a conscious decision to join with a specific number of other organizations that influence on a particular issue”<sup>9</sup>. Therefore, we developed a common language and used all the partners’ expertise to nurture the collaborative process constantly.

From the start, all project members met, discussed and defined the best methodological approaches to produce relevant and consistent outputs. Tasks were distributed fairly, as all partners got the same amount of work to accomplish individually or with another institution. That was the case of IO2, where partners were paired to create the assigned module of the online training package, e.g. Spain and Hungary, Lithuania and Italy, Portugal and Romania. Regarding IO1 and IO3, all partners were assigned similar tasks and aims (60 resources in three different languages, and each wrote one chapter for the publication).

Pixel (IT) had a decisive role in the financial and technical support as it created the manual that has been validated by IPB and collected and assessed the financial reports of the project partners. It also developed the technical infrastructures for the Online Database and the training package and, in cooperation with IPB (PT), created the templates to be used to produce the IO contents, which the partners improved.

All templates were thoroughly discussed, and partners presented improvement suggestions that were always welcome and well accepted.

Research activities were based on collaborative input from all project partners. When assigning the activities, the partner members cleared out possible doubts about their assigned part. Apart from the set transnational meetings, this discussion was done via email or online meetings, if needed.

## **INTELLECTUAL OUTPUTS: STRENGTHS AND POTENTIALITIES**

To our knowledge, when we started this project, QuILL was the first Erasmus + project to deal with digital-based resources and Language for specific purposes in higher education. Consequently, the project produced innovative and original results, as it provided novel ways of exploring and making the best use of OER learning resources in addition to providing useful information and important guidelines in the selection, use and creation of online resources.

One of the most visible results of the project was the construction of a portal, as illustrated in Figure 1. It showcased all outputs. It also represents a springboard for creating a community of practice, where language lecturers and learners share resources, comment about them, or even share their own teaching and learning experiences.



Figure 1. QuILL portal <https://quill.pixel-online.org/>

### Intellectual Output 1 – Database of teaching sources

Intellectual output 1 – a database of teaching sources – was carefully planned and took seriously into consideration its main objectives and target-audience: to have available a wide range of OER resources to assist higher education lecturers in their teaching, providing at the same time learning resources to be used autonomously by anyone (e.g. students, independent learners) who wants to learn one or more of the 18 languages at their disposal. The contents were, in fact, innovative as they catered to specific language domains and European Common Framework of Reference for Languages (CEFR) levels, as well as accommodated a wide variety of topics to be covered in any language for specific purposes syllabi. The fact that all identified resources were assessed, tested and validated by higher education lecturers in a real-life learning context adds innovation and reliability to the project and, more specifically, to IO1. The case studies that are provided in all resources demonstrate how these were (or can be) used in the classroom and how the students reacted to them, followed by important methodological guidelines. By doing this, the project consortium aimed to guide and assist the lecturers with multiple possible ways of using the resources, which can be adopted or adapted by the lecturers who check these resources. An important aspect to highlight is indeed the facilitation of the teaching and learning process by means of innumerable resources for specific purposes and ways of using them. This also represents a wake-up call to the potential of online resources and what teachers and learners can do to make good use of them.

Rather than offering prescriptive solutions, the project aims to raise teachers' awareness about the importance of digital resources and how they can incorporate innovative teaching and learning approaches into their classrooms. By showcasing various methodologies that have been successful in specific contexts and with particular audiences, the project aims to provide lecturers with inspiration and ideas for their own teaching practices. Additionally, the availability of all resources online is a significant strength of the project.

### Intellectual Output 2 – Online training package

The second intellectual output provides useful information on identifying, using and creating OER teaching resources, presented in a rather straightforward and non-fastidious way, as illustrated in Figure 2. Lecturers can easily read through the different modules (3) and then test their own knowledge of the subject by taking an interactive test at the end of each module. This is also another innovative input as, on their own and in an expedient way, teachers can learn more about the subject. The case studies provided are also original, as teachers' experiences about selecting, creating and using online resources and tools proved to be trustworthy testimonies that account for the efficacy of guidelines and resources displayed.

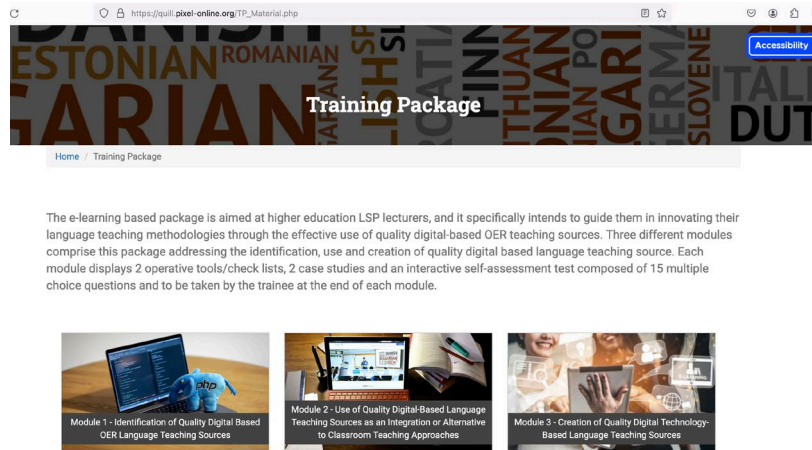


Figure 2. IO2. Training Package

### Intellectual Output 3 – Publication

The publication, titled *Implementation of Digital Language Learning Opportunities in Higher Education. Guidelines for Good Practice*,<sup>10</sup> contains important guidelines produced by all project partners, experienced and specialized lecturers in the language learning field and the digital world. It offers a comprehensive overview of the principles and practices that form the foundation of QuILL. It also provides insights into the unique contexts, practices, challenges, and opportunities each partner faces.

The publication is comprised of six chapters, each focusing on the process of language learning through digital resources. Common themes throughout the chapters include “quality”, “innovation”, and “digital education”. The chapters also include methodological and theoretical concepts, suggestions and recommendations, analysis of case studies, presentation of best practices, links to external resources and a vast and reliable bibliography. Figures 3 and 4 display the contents of this work.


<p>Document developed as Intellectual Output three of the QuILL Project  <a href="https://quill.pixel-online.org">https://quill.pixel-online.org</a></p> <p>The QuILL project (2020-1-PT01-KA226-HE-094809) is co-financed by the Erasmus+ programme of the European Union. The content of this publication is only responsibility of its authorship and neither the European Commission nor the Portuguese National Agency are responsible for the use that may be made of the information disseminated in this publication.</p> <p>The methodological design and the information collection instruments have been designed by Pixel and Instituto Politécnico de Bragança, as the coordinator of the QuILL project, and validated by all partners.</p> <p>This project is being developed with the participation of the partners: Instituto Politécnico de Bragança (project coordinator, Portugal); Pixel (Italy); Alma Mater Studiorum Universitatis di Bologna (Italy); Universidad de Córdoba (Spain); Karol Gaspard Reformation Expertise (Hungary); Vilnius Universitetas (Lithuania); and Universitatea Alexandru Ioan Cuza Din Iasi (Romania).</p> <p>Publication Reference: Silva, E. M., Morádo, S., Zingaro, A., Gómez-Parrs, M. E., Stabb, I., Chodkieni, L., &amp; Ghivirgă, T. (Eds.). (2023). <i>Implementation of Digital Language Learning Opportunities in Higher Education. Guidelines for Good Practice</i>. Instituto Politécnico de Bragança.  <a href="https://doi.org/10.34620/edospib/88MSQE">https://doi.org/10.34620/edospib/88MSQE</a></p> <p></p> <p>QuILL, 2023                      Project Number: 2020-1-ES01-KA203-082364                      Author Community: QuILL                      ISBN: 978-989-33-4231-2                      DOI: <a href="https://doi.org/10.34620/edospib/88MSQE">https://doi.org/10.34620/edospib/88MSQE</a></p>		<p><b>TABLE OF CONTENTS</b></p> <p>LIST OF ABBREVIATIONS ..... 6</p> <p>INTRODUCTION ..... 9</p> <p><b>CHAPTER ONE</b>  <b>QUALITY IN STATE-OF-THE-ART DIGITAL LANGUAGE EDUCATION ..... 14</b></p> <p>1. INTRODUCTION ..... 14                  2. DIGITAL COMPETENCE IN THE EUROPEAN HIGHER EDUCATION CONTEXT ..... 15                  3. QUALITY DIGITAL LANGUAGE LEARNING: STATE-OF-THE-ART TRENDS AND PROSPECTS ..... 17                  3.1. CLARIFICATION OF A TEACHER'S DUTY ..... 18                  3.2. LINKING TECHNOLOGY WITH LSP ..... 20                  3.3. LEARNING+ LANGUAGE LEARNING WITH TECHNOLOGY PROJECTS: A POOL OF KNOWLEDGE ..... 20                  4. CONCLUDING REMARKS ..... 21</p> <p><b>CHAPTER TWO</b>  <b>QUILL QUALITY CRITERIA AND QUALITY INDICATORS IN OER-INTEGRATED LANGUAGE LEARNING 22</b></p> <p>1. INTRODUCTION ..... 25                  2. QUALITY IN EDUCATION THROUGH A HISTORICAL LENS ..... 25                  3. OPENNESS IN EDUCATION, AND WHAT IT ENTAILS ..... 26                  4. QUALITY CRITERIA APPLIED IN THE QUILL DATABASE OF OERS ..... 27                  5. QUALITY INDICATORS IN AN OER-INTEGRATED LANGUAGE COURSE ..... 28                  6. STUDY ONE: LANGUAGE TEACHERS' SATISFACTION WITH OPEN EDUCATIONAL RESOURCES ..... 29                  7. THE USE OF OERS THROUGH THE SRS FRAMEWORK (AFTER WILBY (2009)) ..... 32                  8. STUDY TWO (A PILOT STUDY): LANGUAGE LEARNERS' /STUDENTS' ATTITUDES TOWARDS OER ..... 33</p> <p><b>CHAPTER THREE</b>  <b>INNOVATION IN LANGUAGE TEACHING ..... 38</b></p> <p>1. INTRODUCTION ..... 39                  2. THEORIES AND CONCEPTS UNDERLYING INNOVATIVE APPROACHES TO LANGUAGE TEACHING ..... 39                  2.1 THE TEACHER'S ROLE AND LEARNER AUTONOMY IN ONLINE SELF-LEARNING ..... 40                  2.2 THE CHANGING ROLE OF THE TEACHER IN ONLINE TEACHING SETTINGS IN THE 21ST CENTURY ..... 40                  2.3 METHODS OF ELECTRONIC LEARNING TECHNOLOGIES ..... 41                  2.4 TEACHING LANGUAGE SKILLS WITH DIGITAL TECHNOLOGIES ..... 42                  2.5 BLENDED LEARNING AS AN IDEAL EDUCATIONAL SETTING IN LANGUAGE EDUCATION IN HIGHER EDUCATION ..... 42</p>
--	--	---

Figure 3. IO3. Book contents

3. INNOVATIVE SOLUTIONS IN TRAINING PRE-SERVICE EFL TEACHERS IN HIGHER EDUCATION..... 43	CHAPTER SIX DIGITAL EDUCATION AND LSP: CONTENTS IN LANGUAGE LEARNING AND TEACHING..... 73
3.1 TEACHING PRACTICE DURING DISTANT LEARNING..... 43	1. INTRODUCTION..... 73
3.2 HYBRID TEACHING PRACTICE..... 43	2. THEORETICAL AND METHODOLOGICAL FRAMEWORK..... 73
3.3 REVERSE MENTORING..... 44	2.1 DEFINING DIGITAL COMPETENCE: THE CONTRIBUTION OF THE COUNCIL RECOMMENDATIONS..... 73
3.4 PEER MENTORING..... 44	2.2 THE PEDAGOGICAL DEBATE ON OERs..... 74
3.5 ONLINE TEACHING PRACTICE..... 45	2.3 THE ASSES OF THE MEDIA IN EDUCATION..... 75
3.6 BEST PRACTICES IN FOREIGN LANGUAGE TEACHER'S ONLINE EDUCATION..... 45	2.4 NOTIONS ON ICT-BASED LANGUAGE TEACHING AFTER THE DIGITAL TURN..... 76
4. RECOMMENDATIONS, DO'S AND DON'Ts..... 46	2.4.1 Digital Turn and Digital Gap..... 76
CHAPTER FOUR HIGHER EDUCATION STUDENTS' MOTIVATION TO LEARN LANGUAGES USING DIGITAL TECHNOLOGIES AND RESOURCES..... 50	2.4.2 STRENGTHENING DIGITAL LITERACY..... 76
1. BASIC THEORIES ON MOTIVATION..... 50	2.4.3 ENHANCING TEACHER CONFIDENCE AND AUTONOMY..... 77
1.1 MOTIVATION: DEFINITIONS AND TYPOLOGY..... 50	3. HOW TO USE DIGITAL RESOURCES AS AN INTEGRATION OR AN ALTERNATIVE TO CLASSROOM ACTIVITIES: TOOLS AND CASE STUDIES..... 77
1.2 TYPOLOGY OF MOTIVATION IN PSYCHOLOGY..... 51	3.1 SUPPORTING FINNISH-SPOKEN LANGUAGE LEARNING USING THE PHILIPPA SUOMEN? Web Course..... 78
1.3 THEORIES OF MOTIVATION IN PSYCHOLOGY..... 51	3.2 USING THE APP FORUMMAGS TO SUPPORT ITALIAN L2 INCIDENTAL LEARNING..... 79
1.4 APPROACHES TO MOTIVATION IN LANGUAGE LEARNING..... 51	3.2.1 STRUCTURE AND FEATURES..... 80
2. MOTIVATION IN DIFFERENT LEARNING SCENARIOS..... 53	3.2.2 TESTING..... 80
2.1 THEORIES AND MODELS IN DIFFERENT LEARNING SCENARIOS..... 53	3.3 USE OF PODCASTS IN LSP TEACHING AND LEARNING..... 81
2.2 LSP SCENARIOS..... 54	3.3.1 Why Podcasts?..... 81
3. ASSESSING MOTIVATION, ADDRESSING NEEDS AND TAILORING LANGUAGE COURSES TO THE SPECIFIC NEEDS OF HIGHER EDUCATION STUDENTS STUDYING LSP..... 55	3.3.2 EMERGOPTION OF A PODCAST FOR LSP..... 81
3.1 ASSESSING MOTIVATION..... 55	3.4. DEUTSCHAM JOB – PHÖNIX GELISCHT: ENHANCING SECTOR-SPECIFIC DISCOURSE..... 81
3.2 COMPONENTS AND DESCRIPTION..... 56	3.4.1 FEATURES OF THE WEB COURSE..... 82
3.3 ADDRESSING NEEDS AND TAILORING LANGUAGE COURSES TO THE SPECIFIC NEEDS OF HIGHER EDUCATION STUDENTS STUDYING LSP..... 57	3.4.2 TRYING STUDENTS' RESPONSES..... 82
4. ADDRESSING EFFECTIVELY THE NEEDS OF STUDENTS TO LEARN LANGUAGES AS A TOOL TO SUCCESSFULLY ENTER THE JOB MARKET AND DEVELOP FUTURE BUSINESS..... 58	3.4.3 GOING A STEP FURTHER: INTEGRATING THE OER..... 82
4.1 BEST PRACTICES..... 58	4. CONCLUSION..... 83
4.2 NEED ANALYSIS TOOLS..... 59	
5. CONCLUDING REMARKS..... 60	
CHAPTER FIVE IMPLEMENTING DIGITAL TECHNOLOGIES IN LANGUAGE LEARNING AND TEACHING AT A SYSTEMIC LEVEL IN THE HE SECTOR..... 65	
1. THEORETICAL BACKDROP..... 65	
2. LOOKING INTO QUILL'S OER CASE STUDY..... 67	
3. PRACTICAL GUIDELINES FOR THE IMPLEMENTATION OF OER FOR LANGUAGE LEARNING AND TEACHING IN HIGHER EDUCATION..... 69	

Figure 4. IO3. Book contents

## IMPACT OF QUILL

This project enabled the contractual partners to gain a deeper understanding of various teaching practices and methodologies in language learning. One of the project's significant strengths was finding common ground in language learning supported by digital technologies. All partners enhanced their collaborative skills, sharing ideas on teaching and learning methodologies developed in their countries that could be adapted to different contexts. The impact of QuILL was not only obvious for all partner members, as they were directly involved in all the tasks carried out. The project's target audience has gained insight into an area that needs constant updating, benefitting from a plethora of useful language learning resources, apart from essential guidelines relevant to the professional awareness of a specific group of lecturers who teach language for specific purposes. Moreover, policymakers at several higher education institutions became more informed and alert regarding these issues, especially when combining the language approach and technology. The open educational resources were welcomed by higher education institutions in general due to the many possibilities they opened across several teaching and learning contexts in today's lecturing environment.

## The project's impact on higher education lecturers

The university lecturers have a wide range of open educational resources available on the website, providing a ready-made pool of resources to draw on. Despite being tested by other lecturers, the resources can easily be transferred to different contexts, being adapted to their own teaching contexts whenever needed. The use of digital resources integrated into new methods is also a challenge to more traditional approaches/contents. Consequently, lecturers benefit significantly from this novel approach, based on digital technologies, to language learning and teaching processes. The training package also allows them to develop their digital skills as well as expand the scope of teaching methods and techniques. In addition, the online training package also enables the lecturers to reflect upon their teaching activities. IO3 provides lecturers with useful and important guidelines for their own teaching careers. The set of outcomes constitutes a solid foundation for lecturers to create their own resources following quality parameters, which were confirmed and validated by the project, thus enabling them to navigate the sea of available resources on the internet with more comprehensive and thorough awareness.

### **The project's impact on higher education students**

Students are also provided with digital novelty regarding teaching/learning processes. Students have at their disposal many resources that they can use in an autonomous way, at their own pace. The domains, the CEFR levels, skills and other guidelines provided are also important beacons of how and for what purposes the resources can be used by the students. Students who want to become teachers can also find in IO2 and IO3 significant tips for their training.

### **The project's influence on other relevant stakeholders**

Several agents in the educational context were relevant stakeholders, particularly in higher education, and agents from technological backgrounds aiming to join both aspects. In fact, stakeholders have a wealth of knowledge and insight in this field. Key stakeholders can provide requirements or constraints based on information from their backgrounds that will be important to have when understanding project constraints and risks. In this case, stakeholders realized the impact of QuILL through the outputs. It was an opportunity for them to have access to what is being carried out within the context of Language for Specific Purposes in Higher Education and adapt it to their range and level. Therefore, stakeholders became aware of the importance of providing training for teachers in digital technologies to enhance digital literacy. Additionally, they are equipping schools and higher education institutions with new technological resources to support the implementation of innovative methodologies using digital tools and technologies.

As such, we can infer that the value of the project was understood, and the impact is viewed beyond its immediate results. In fact, some stakeholders demand part of the project be transformed into a formal training activity, thus maximizing its impact in the future. The project has supplied various target groups with evidence-based information useful for transforming everyday processes.

### **CONCLUSION**

Though formally concluded, the QuiLL project shows potential for ongoing and future value since it can be permanently updated, and lecturers around the world can not only retrieve from what the website has to offer regarding the abovementioned intellectual outputs but also contribute to making it more complete through the addition of resources in 18 languages, comments on existing ones and participation in the online training package, which is highly interactive and readily available for use. The publication represents a pillar for those who intend to improve their digital literacy in language teaching.

The potential of the project has been publicly recognized by the Portuguese National Erasmus+ Agency, which has recently awarded QuILL with an Honorable Mention in the category of Cooperation Partnerships for the year 2023.

The project aimed to enhance the digital literacy of lecturers and students, equipping them with the skills needed to tackle societal challenges and meet the evolving demands of the job market. From our perspective, these goals have been successfully achieved.

In addition to incorporating 18 European languages, including several less commonly spoken ones, the project promotes a multicultural approach. This undoubtedly enhances understanding and awareness of the current importance of language learning and how it facilitates global communication for various purposes.

This article displayed the project's intellectual outputs, explaining and detailing them in the face of a teaching and learning context based in Europe but with the possibility of expanding to other world regions. The project's accomplished outcomes can enrich the digital literacy of higher education lecturers, especially in Languages for Specific Purposes. The availability of 385 high-quality open

educational resources that have been tested, evaluated, and validated surely provides an opportunity for a wide range of higher education lecturers.

The project also provides an outline of diverse methodologies that have proven valuable in specific contexts, allowing lecturers in several contexts to obtain inspiration for their classroom practices.

One of the most relevant achievements of the project is the technology enhanced approach, which allows the incorporation of free online resources from the Internet in a resourceful and structured way, solidly described in the published guidelines for lecturers, stakeholders and other agents to replicate.

## NOTES

- <sup>1</sup> Joanne Blannin, *Beginning teaching with Digital Technologies* (Thousand Oaks: Sage, 2022), 88.
- <sup>2</sup> Robert J. Blake, *Brave New Digital Classroom: Technology and Foreign Language Learning* (Washington, D.C: Georgetown University Press, 2012), 2.
- <sup>3</sup> Graham Stanley, *Language Learning with Technology: Ideas for Integrating Technology in the Classroom*. (Cambridge: Cambridge University Press, 2013), 2.
- <sup>4</sup> Nergiz Kern, "Technology-integrated English for Specific Purposes Lessons: Real life language, tasks, and tools for professionals" In *Innovations in Learning Technologies for English Language Teaching*, edited by Gary Motteram (London: British Council, 2013), 92.
- <sup>5</sup> Li Li, *New Technologies and Language Learning* (London: Palgrave, 2017), 11-12.
- <sup>6</sup> Kamilla Kraft and Mi-Cha Flubacher, "Multilingualism in the workspace. Issues of space and social order." In *The Routledge Handbook of Multilingualism*, edited by Carolyn McKinney, Pinky Makoe and Virginia Zavala (New York: Routledge, 2023), 369-382.
- <sup>7</sup> Rina Vuorikari, Stefano Kluzer, and Yves Punie, Y., DigComp 2.2: The Digital Competence Framework for Citizens, EUR 31006 EN, (Luxembourg: Publications Office of the European Union, 2022).
- <sup>8</sup> Gottfried Schweiger, "Introduction. The Global and Social Consequences of the Covid-19 pandemic. An Ethical and Philosophical Reflection." In *The Global and Social Consequences of the Covid-19 pandemic. An Ethical and Philosophical Reflection*. (Salzburg: Springer, 2022). 1-16.
- <sup>9</sup> Elizabeth Lank. *Collaborative Advantages. How Organizations Win by Working Together*. (New York: Palgrave MacMillan, 2006), 12.
- <sup>10</sup> Elisabete M. Silva, Sandro Moraldo, Anna Zingaro, Maria Elena Gómez-Parra, Ildiko Szabó, Loreta Chodzkiènè, Teodora Ghivirigă (Orgs.), *Implementation of Digital Language Learning Opportunities in Higher Education. Guidelines for Good Practice*. (Bragança: Instituto Politécnico de Bragança, 2023).  
<https://doi.org/10.34620/dadosipb/BBMSQE>

## BIBLIOGRAPHY

- Blake, Robert J., *Brave New Digital Classroom: Technology and Foreign Language Learning*, Washington, D.C: Georgetown University Press, 2012.
- Blannin, Joanne, *Beginning teaching with Digital Technologies*. Thousand Oaks: Sage, 2022.
- Kern, Nergiz, "Technology-integrated English for Specific Purposes Lessons: Real life language, tasks, and tools for professionals." In *Innovations in Learning Technologies for English Language Teaching*, edited by Gary Motteram. London: British Council, 2013. 87-116.
- Kraft, Kamilla and Mi-Cha Flubacher, "Multilingualism in the workspace. Issues of space and social order." In *The Routledge Handbook of Multilingualism*, edited by Carolyn McKinney, Pinky Makoe and Virginia Zavala. New York: Routledge, 2023.
- Lank, Elizabeth. *Collaborative Advantages. How Organizations Win by Working Together*. New York: Palgrave MacMillan, 2006.
- Li, Li, *New Technologies and Language Learning*. London: Palgrave, 2017.
- Schweiger, Gottfried. "Introduction. The Global and Social Consequences of the Covid-19 pandemic. An Ethical and Philosophical Reflection." In *The Global and Social Consequences of the Covid-19 pandemic. An Ethical and Philosophical Reflection*, edited by Gottfried Schweiger. Salzburg: Springer, 2022.
- Silva, Elisabete M., Moraldo, Sandro, Zingaro, Gómez-Parra, Maria Elena, Szabó, Ildiko, Chodzkiènè, Loreta, and Ghivirigă, Teodora (Orgs.). *Implementation of Digital Language Learning Opportunities in Higher Education. Guidelines for Good Practice*. Bragança: Instituto Politécnico de Bragança, 2023.  
<https://doi.org/10.34620/dadosipb/BBMSQE>
- Stanley, Graham *Language Learning with Technology: Ideas for Integrating Technology in the Classroom*. Cambridge: Cambridge University Press, 2013.
- Vuorikari, Rina, Kluzer, Stefano, and Punie, Yves, DigComp 2.2: The Digital Competence Framework for Citizens, EUR 31006 EN, Luxembourg: Publications Office of the European Union, 2022.