

**Enhancing University Language courses with an App  
powered by game-based Learning and tangible user  
Interfaces Activities  
(EULALIA)**

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ERASMUS+PROGRAM – KEY ACTION 2:  
STRATEGIC PARTNERSHIPS FOR HIGHER EDUCATION 2019

**IO4 -Report of the impact of EULALIA  
Toolkit for the Erasmus Plus Students**

## Amendment history

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## Glossary and abbreviations

AB: Advisory Board

AMU: Adam Mickiewicz University in Poznań

EUF: European University Foundation

HE: Higher Education

HEI: Higher Education Institution

IO: Intellectual Output

ME: Multiplier Event

NA: National Agency

OER: Open Educational Resource

PC: Project Coordinator

SM: Smarted Srl

TUI: Tangible User Interface

UA: University of Alicante

UOM: University of Malta

UNINA: University of Naples Federico II

UP: University Partners

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# 1 Introduction

Universities in Europe are exhorted to cultivate multilingualism, as “*one of the cornerstones of the European project and a powerful symbol of the EU’s aspiration to be united in diversity*” (Erasmus+ Programme Guide 2022, p. 11). Being exposed to different languages and cultures during cross-border mobility programmes not only has a positive impact on educational development but also is an enriching and mind-opening experience. It encourages students to overcome differences through communication, and ultimately improve their future job prospects in an increasingly interconnected world.

Yet, the use of different languages within the European space can easily become a barrier to the learning process if students are not adequately supported during their stay abroad. Indeed, very often Erasmus+ students are asked to attend university courses in the language of the host institution and the same goes for the language used in final exams. In this context, providing language support is essential to improve students' overall learning performance. Equally important is the necessity for language teachers to adapt to new technologies and tools, to be more aligned with contemporary cognitive learning styles and meet students' demands.

In response to the need to promote multilingualism and incorporate new technologies into teaching and learning practices, a collaborative European partnership established the EULALIA project (Enhancing University Language courses with an App powered by game-based Learning and tangible user Interfaces Activities). This partnership includes four Higher Education Institutions (HEIs): the University of Naples Federico II (UNINA) as project coordinator (PC), the University of Alicante (UA), the Adam Mickiewicz University in Poznań (AMU), the University of Malta (UOM), as well as the start-up Smarted Srl (SM) and the European University Foundation (EUF).

## 2 The EULALIA Project

The objective of the EULALIA project was twofold. First, it aimed to improve and integrate the learning methodologies of the university language centres for Erasmus students in the four HEIs involved in the project through the development of innovative learning tools based on the paradigm of Mobile Learning and Game-Based Learning methodology.

The second objective was working towards an approach supporting the learning and teaching processes for all students, including those with sensorial or multisensorial disabilities by utilizing the Tangible User Interfaces (TUIs) paradigm (i.e., the setting that enables the learner to interact with cards, maps, blocks, everyday life- objects). This approach embraces both the virtual and real dimensions, closely connecting them, hence allowing for an interaction between the user and the digital interface, through the mediation of tangible objects.

COVID-19 outbreak and the subsequent introduction of mobility restrictions, together with the closing of HEIs had a big impact on the second objective of the EULALIA project. The pandemic has affected the participation of students in the Erasmus+ programme all over Europe, including in the four UP involved in the EULALIA project. Students were faced with the difficult decision of whether to continue their activities through distance learning, suspend or cancel their mobility period abroad. Therefore, all activities included in the project had to be moved online, requiring extra effort from all partners. Ultimately, the consortium managed those challenges jointly, but adjustments were made to the planning to accommodate some necessary changes. All adjustments to the original plan will be further detailed in this report.

Despite the difficult circumstances, the four UP successfully organised and carried out ten Multiplier Events (ME). Four of them (E1-E2-E3-E4) aimed at

teaching lecturers and professors how to use the OER authoring tool and the EULALIA APP. This competence has been then transferred to the students during the workshops for Erasmus Students (E6-E7-E8-E9). Throughout the final phase of the EULALIA project, international students have been able to use and test the APP “in the field” (pilot phase) and teachers interested in diversifying their teaching methods have improved their awareness of emerging technologies.

### 3 IO4 - Report of the impact of EULALIA Toolkit for the Erasmus Plus Students

The present report summarises the main results achieved during the pilot phase of the EULALIA project (M23-M30). The first sections include key findings and policy recommendations for future exploitation. The second part of the report summarises the application in real university courses, the trials executions, and the overall effects on the learning processes.

#### 3.1 Methodology

The mixed-method research undertaken to support this report has included:

- The circulation of two online student surveys (pre-survey and post-survey) which received respectively 328 and 239 responses.
- Five online interviews with lecturers.
- An expert review carried out by two members of the EULALIA project Advisory Board (AB).

##### 3.1.1 Student surveys

The two surveys called *pre-survey* and *post-survey* were respectively disseminated during the first weeks and at the end of the language courses in the four UP. The target audience were foreign students and, more specifically:

- A group of students having used the EULALIA APP (hereafter called EULALIA group).
- A control group (hereinafter called Reference group).

The EULALIA group had access to the EULALIA APP, while the Reference group did not have access to it. The surveys were hosted via Google Forms and were open between October and December 2021 (M26-M28). Survey questions were prepared in English by EUF. Each survey took approximately 15 minutes to complete, and efforts were made to maintain respondents' confidentiality and anonymity.

### 3.1.2 Interviews with lecturers

Five semi-structured interviews with one lecturer per UP were conducted online via Teams or Zoom by EUF between late November and December 2021 (M27-28). The interviews were designed to encourage lecturers to engage with the topic being discussed and lasted between 30 minutes and 1 hour. The list of common interview questions was drafted in English by EUF and with contributions from the partners (Appendix 1). In the case of UA, two interviews were conducted: one with a lecturer teaching Spanish, and a second one with a lecturer teaching Catalan. The five interviewees, who used the EULALIA APP in their classrooms, were selected by the UP. All interviewees were informed about the objective of the interview prior to the meeting (information sheet) and invited to sign a consent form (Appendix 2). Data was recorded with the consent of participants and then transcribed by EUF (Appendix 3).

### 3.1.3 Expert review: the Rubric for eLearning Tool Evaluation

Lastly, UNINA invited two members of the AB to carry out an expert review, designed to identify potential usability issues in the EULALIA APP. The two experts were invited to place the APP on the scale of "works well", "minor concerns", "serious concerns" in the [Rubric for eLearning Tool Evaluation](#) (Anstey and Watson 2018). The expert review was carried out at the beginning

of January 2022 (M29) and its results were submitted to EUF in mid-January 2021.

### 3.2 Pilot phase

As summarised in the table that follows (table 1), the evaluation of EULALIA APP and related activities carried out during the pilot phase tackled the following five dimensions:

1. Development of Language competencies for Erasmus students.
2. Learning of cultural aspects of the hosting city.
3. Community of practice.
4. The EULALIA APP accessibility.
5. Pedagogical impact.

Each dimension was linked to: (1) a specific evaluation question, (2) the measurement criterion used, (3) the target group.

**Table1:** Evaluation overview

Dimension	Evaluation question	How will it be measured?	Target group
1. Development of language competencies for Erasmus students.	Does the EULALIA APP have an impact on the language competencies of students?	Pre- and post-Survey.	Students who had access to the EULALIA APP and their peers who did not have access to it.
2. Learning of cultural aspects in the hosting city.	Does the EULALIA APP have an impact on the students' knowledge about the city where the university is located?	Pre- and post-Survey.	Students who had access to the EULALIA APP and their peers who did not have access to it.



3. Community of practice.	Is there an increase in students' development of digital skills and their perceptiveness of co-creation in their language learning by having worked with the EULALIA APP?	Pre- and post-survey.	Students who had access to the EULALIA application and their peers who did not have access to the application.
4. The Eulalia App accessibility.	Are there anomalies in the EULALIA app considering accessibility, pedagogy and GDPR?	1) Qualitative instrument: Expert review: Rubric for eLearning Tool Evaluation  2) Quantitative instrument: users' questionnaires: System Usability Scale (in the EULALIA group post-survey).	1) The expert review gives an overall view of the EULALIA APP usability from the perspective of the experts.  2) The System Usability Scale will give an overall view of the EULALIA APP usability from the perspective of users.
5. Pedagogical Impact.	Do lecturers who have been working with the EULALIA APP and related methodologies describe any changes in their professional practices?	Online interviews with one lecturer per UP – 2 in the case of UA.	Lecturers having used the EULALIA APP.

### 3.3 Data limitations

An important caveat needs to be made at this point, before moving to the most important conclusion of this report. As mentioned already, Covid-19 had a severe impact on the incoming mobility of students towards the four HEIs involved in the project. To avoid major impacts on the project outcomes, and

in order to successfully meet the project deadlines, the consortium decided to make a few adjustments. More specifically:

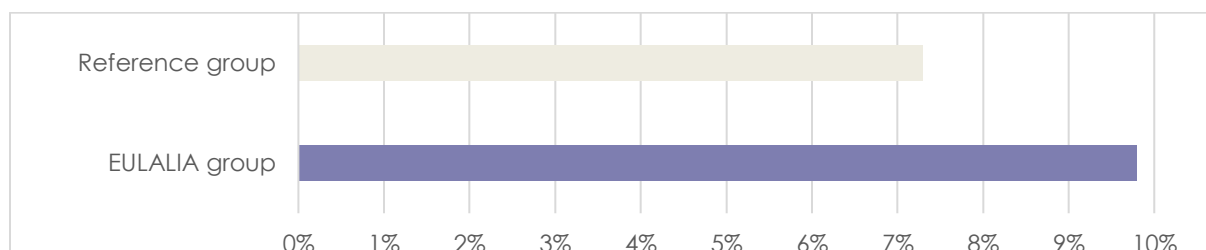
- The survey sample consisted of Erasmus students where applicable (UNINA, AMU and UA-Spanish), other international students (UNINA, AMU), internal university students (UA-Catalan), adult foreign students (UOM).
- The student surveys sample size was different in the four UP.
- Participants may have had different interpretations of the questions asked in the surveys, hence slightly altering the results, although a significant effort was made to avoid this from happening.
- The number of OERs created was heterogenous across UP.



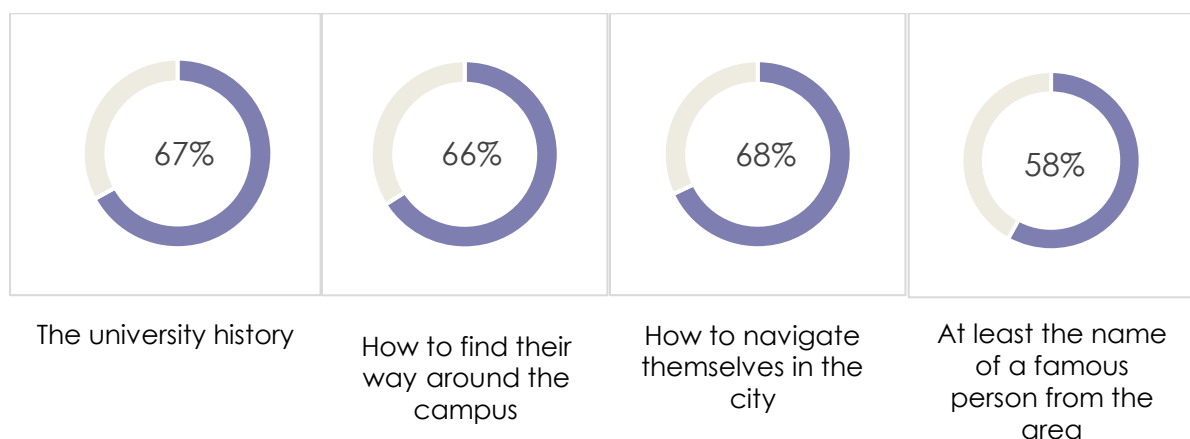
## 4 Key Findings

- On a scale from 1 to 10, the average **cultural knowledge of the host city gained at the end of the language courses** was 0,98 (**9,8%**) among

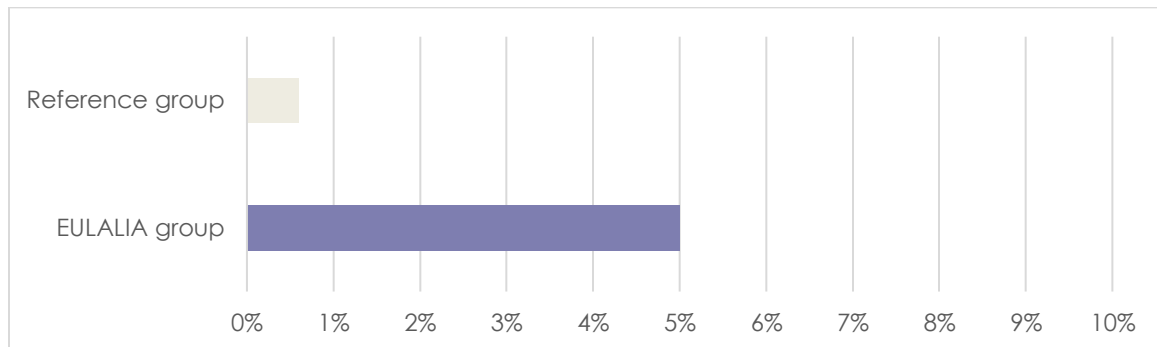
students having used the EULALIA APP, compared to 0,73 (**7,3%**) in the control group.



- **Major improvements were visible among students with an intermediate language level and above**, showing that the EULALIA APP is most likely suitable for students with a level ranging from B1 to C1 (CEFR).
- Around **65%** of respondents in the EULALIA group felt that their **knowledge about the host city** improved thanks to the language courses, compared to **57% of respondents in the control group**. More specifically, **the EULALIA group of students reported that**, thanks to the language courses in the UP, **they have learnt about:**



- On a scale from 1 to 10, the average **improvement in digital skills** made by **the EULALIA group** was 0,5 (**5%**), compared to 0,06 (**0,6%**) in **the control group**.



- The **2 experts** and members of the EULALIA Advisory Board **reported that overall, the EULALIA APP seems to be working well and it is GDPR compliant**: the number of “works well” on the “[Rubric for e-Learning Tool Evaluation](#)” is 14 out of 27. However, improvements are still needed in terms of functionality, accessibility, technical aspect, mobile design.
- **Students were asked about the EULALIA APP usability**. On a scale ranging from 0 to 100, the **EULALIA APP Usability Score was 53,63**.
- All lecturers interviewed confirmed that **co-creation in learning and teaching was the most successful part of the project**. It was perceived by students as **a learning experience done with their active involvement and participation**. Co-creation allowed for the development of a closer relationship between students involved in the pilot phase and future students, as well as students and teachers.
- Overall, the lecturers interviewed reported that **the introduction of the EULALIA APP and related methodologies can enhance student motivation, concentration, engagement, communication, and negotiation skills**.

## 5 Recommendations

Drawing on the results gathered during the pilot phase of the EULALIA project, the following recommendations were made to further exploit EULALIA APP and methodologies in other HEIs.

### **1. Increase the attractiveness of your HEI by activating advanced and up-to-date language courses.**

The introduction of mobile learning applications is growing in popularity, presenting new opportunities for students and teachers. Using different primary data sources, we documented that the introduction of the EULALIA APP proved to be a successful means of supporting students' language-learning processes. The practices reviewed in this report present a great potential for *transferability* to other HEIs. The transferability is possible thanks to the open and ready-to-use educational materials developed by UP (OERs), available for download on Google Play Store the at the following link: <https://play.google.com/store/apps/developer?id=Eulalia+Apps>.

### **2. Provide adequate support for teachers.**

Teachers play an important role as agent of change. To encourage the shift towards more inclusive and technological-oriented pedagogical strategies, adequate support should be offered to them. Institutional support can be expressed in different forms, such as financial investment in the necessary equipment or training on new language teaching strategies. During the lifetime EULALIA project, time was allocated to successfully transfer the competencies needed to teachers and students involved in the pilot.

### **3. Implement peer-learning opportunities for teachers and students.**

Empirical results included in this report have shown that student peer-learning opportunities can lead to greater motivation and engagement, also thanks to the personalised, context-oriented learning material created. For the teachers, knowledge transfer using peer-mentoring is an effective way to foster knowledge gain in a collaborative and international environment, ultimately deepening teachers' understanding and confidence in using the EULALIA APP.

### **4. Use the EULALIA APP as a complementary teaching tool.**

Mobile applications are increasingly being used among educational practitioners. However, lecturers interviewed during the pilot phase emphasised that the EULALIA APP should be used as a *complementary* resource instead of an *alternative* to traditional class learning strategies. The tool cannot replace the real-world experience, but it can instead be used to improve students' language competencies, as a curricular or extracurricular resource.

### **5. Foster a student-centred approach**

An open dialogue between teachers and students on how to improve existing language resources is not only useful to enhance learners' motivation and

team building skills, but it is also key to better meet their language needs. In the framework of the EULALIA project, students had the opportunity to contribute equally to the creation of educational material (OERs) useful for themselves and for future students.

## **6. Use gamification to enhance second language learning**

Learning a second language is a challenging task, which can be eased by the introduction of gamification. As a pedagogical strategy, gamification refers to the introduction of game elements in an educational context (in our case, a classroom). Empirical evidence showed that students exposed to gamified learning activities were more motivated and engaged than the students in the control group. The use of the EULALIA APP also allowed students to study at their own pace.

## 6 Student Surveys: main findings

The main goal of the student surveys was to assess the effects of the EULALIA APP on:

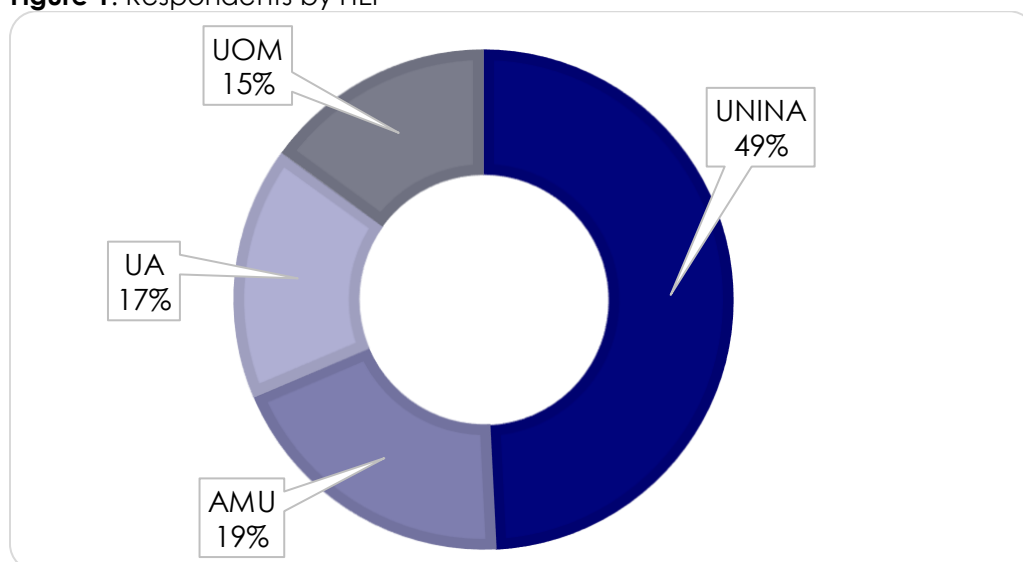
1. Students' language competencies.
2. Students' knowledge about the city where the university is located.
3. Students' potential development of digital skills.

Due to time constraints, the EULALIA APP was tested by UP over a timescale of five weeks on average, from November 2021 to mid-December 2021 (M27-M28).

### 6.1 Survey participants

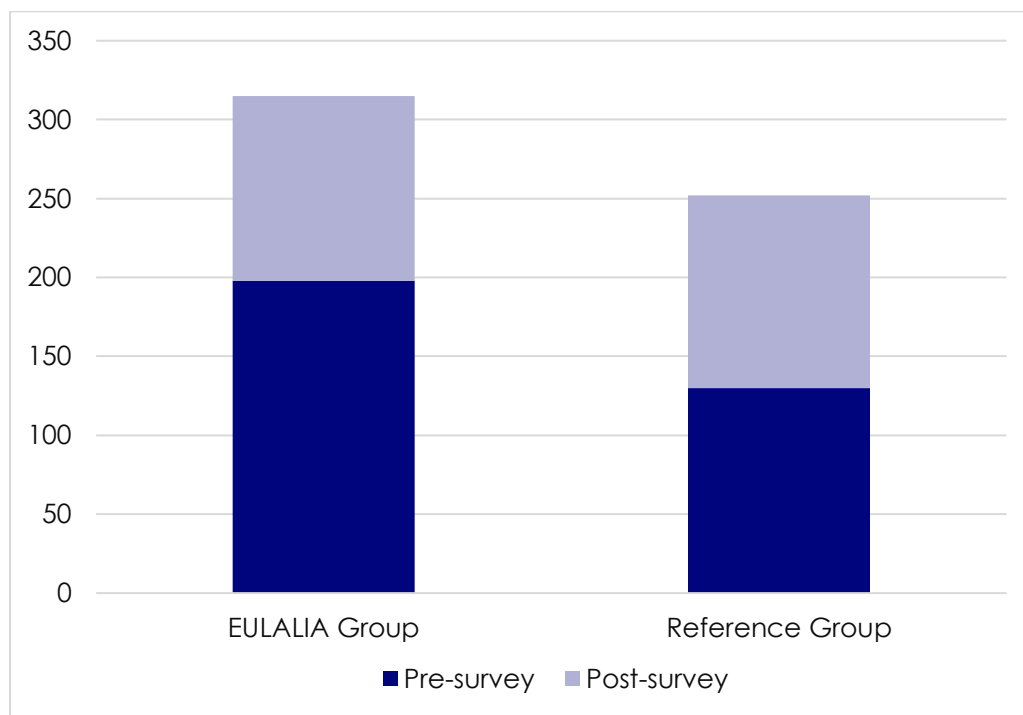
The survey received a total of 567 responses. The most represented HEI was UNINA, with around 49% of students having studied at the language course of the same university, followed by AMU (19%), UA (17%) and UOM (15%).

**Figure 1:** Respondents by HEI



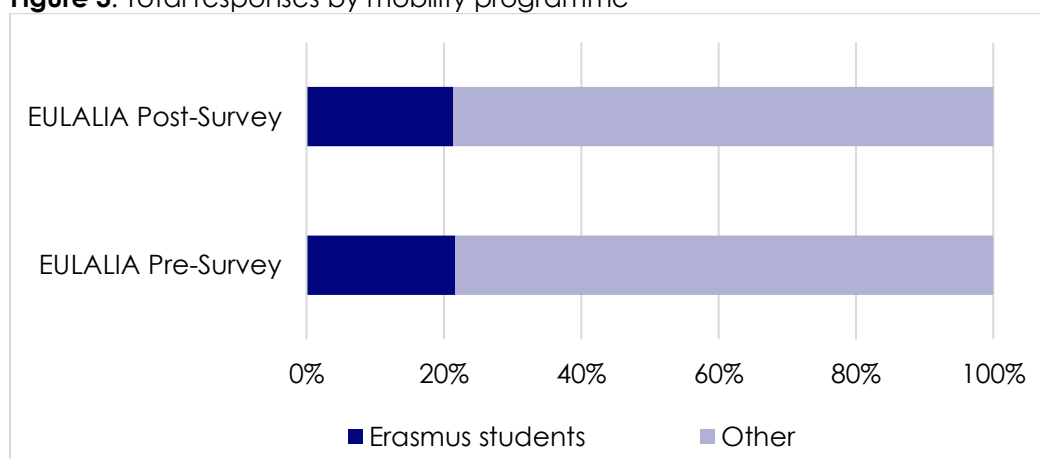
Among the 567 total responses, 328 surveys were filled in by students before the language courses in the four UP (pre-survey responses) and 239 were filled in at the end of the language courses (post-survey responses).

**Figure 2:** Total responses by student group



Due to Covid-19 and the subsequent introduction of mobility restrictions, different groups of foreign students were involved in the pilot phase. The survey received responses from Erasmus students (UNINA, AMU, UA-Spanish), other international students (UNINA, AMU), internal students (UA-Catalan) and adult foreign students (UOM). All the above-mentioned students were following an Italian, Spanish, Catalan, Polish and Maltese language course at the language centres of the UP.

**Figure 3:** Total responses by mobility programme



## 6.2 Cultural and linguistic competencies

The survey asked respondents to state their knowledge about the culture in the host city before the language course and at the very end of it. More



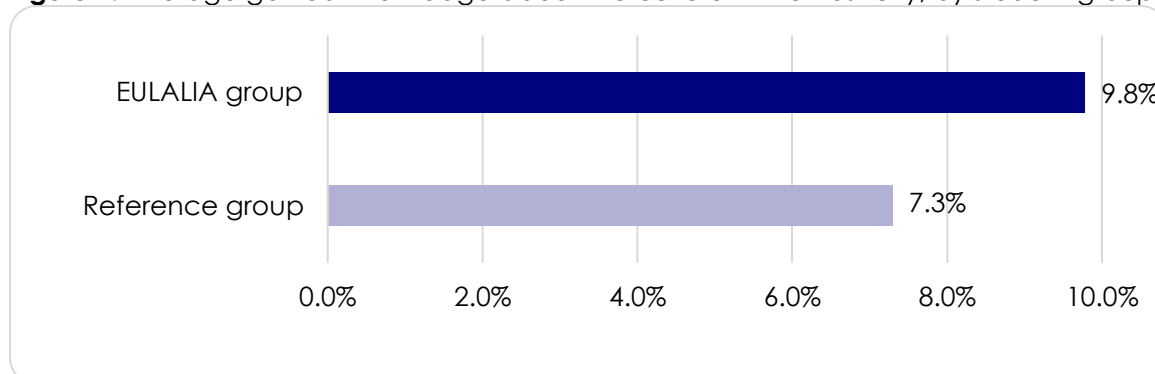
specifically, respondents were asked to rate their knowledge about the culture in the host city on a scale from 1 (basic knowledge) to 10 (advanced knowledge). The same question was asked to the EULALIA group (students having used the EULALIA APP and methodologies) and to the Reference Group (students who had no access to the EULALIA APP).

In broad terms, the EULALIA group of students did show an improvement, although the app was tested only for a limited amount of time. It remains to be seen whether:

- (I) this improvement is confirmed/increases when testing the EULALIA APP over a longer period (e.g., one semester).
- (II) gamification works well on a longer time span, hence not only because of its “novelty effect”.

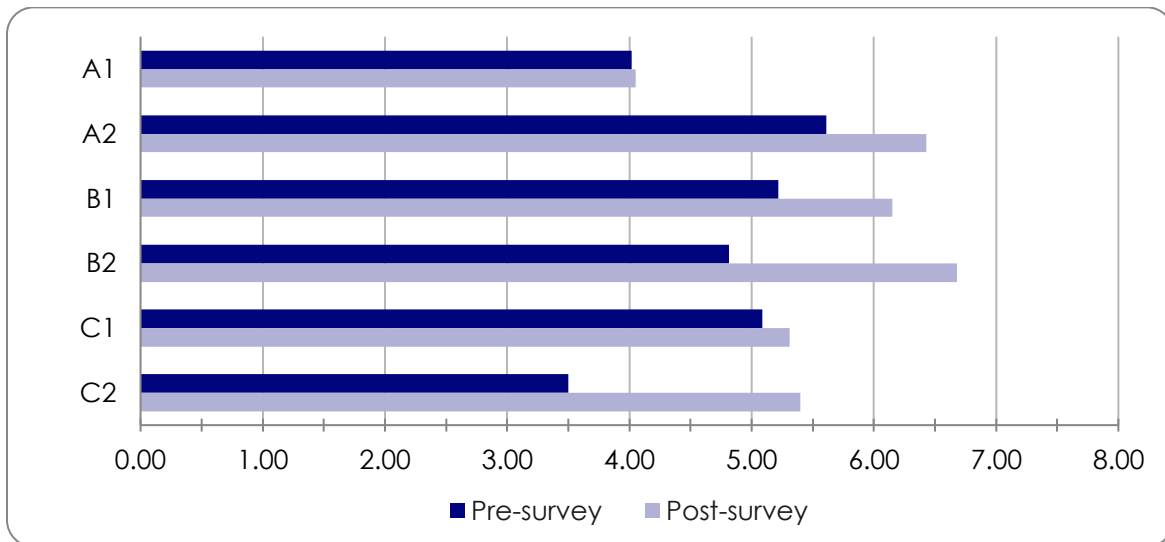
On a scale from 1 to 10, the average improvement made by the EULALIA group was 0,98 (9,8%), while that of the Reference group was 0,73 (7,3%).

**Figure 4:** Average gained knowledge about the culture in the host city, by student group



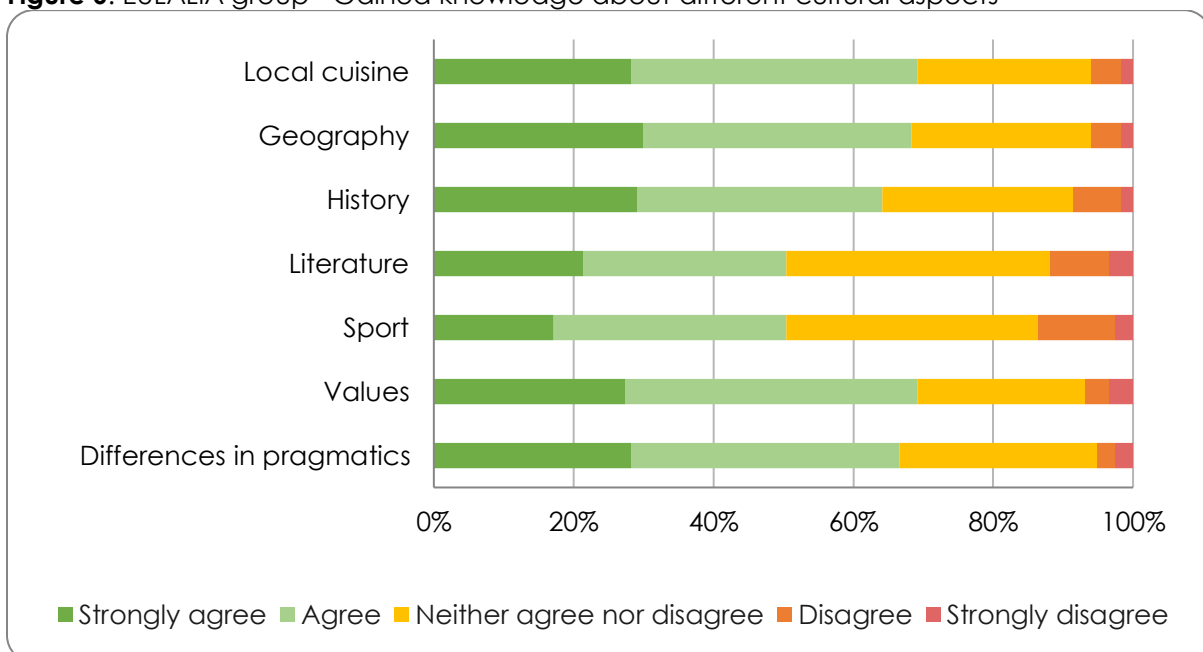
Overall, major improvement was visible among students with a language level ranging from A2-B1 to C2 of the Common European Framework of References for Languages (CEFR), showing that the EULALIA APP is most likely suitable for students with an intermediate level and above.

**Figure 5:** EULALIA group – Average gained knowledge about the culture in the host city, by language level (CEFR)



Culture is, of course, a term encompassing a diverse set of tangible and intangible aspects. For the purpose of this survey, only a few characteristics were taken into consideration, with the ultimate goal of assessing potential improvements made by students. Data showed that notable improvements were achieved by both the EULALIA and the Reference group at the end of the language courses.

**Figure 6:** EULALIA group - Gained knowledge about different cultural aspects

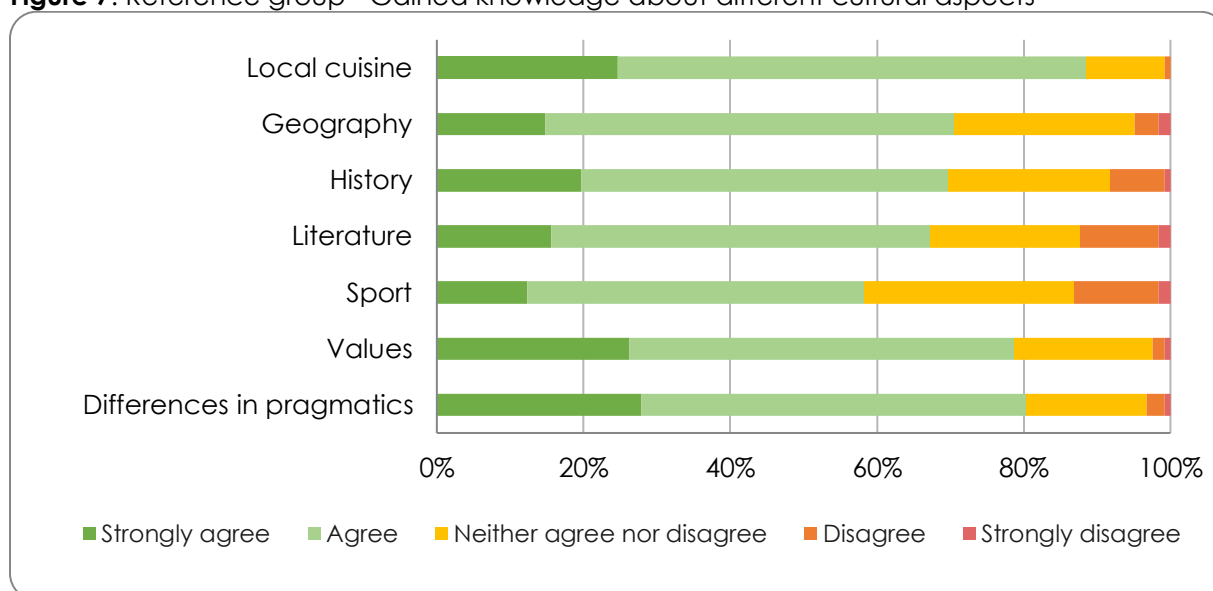


In the case of the EULALIA group, on average over 60% of respondents reported having gained some knowledge about the different cultural aspects mentioned in the survey. As for the Reference group, on average over 70% of

respondents reported having improved their knowledge about the same cultural aspects.

In this respect, it is worth pointing out that number of OERs created by each UP was heterogenous. The creation of more OERs is therefore desirable, and their content could be further diversified. Further, some technical issues with the OERs have been detected by UP and were being fixed during the piloting.

**Figure 7:** Reference group - Gained knowledge about different cultural aspects



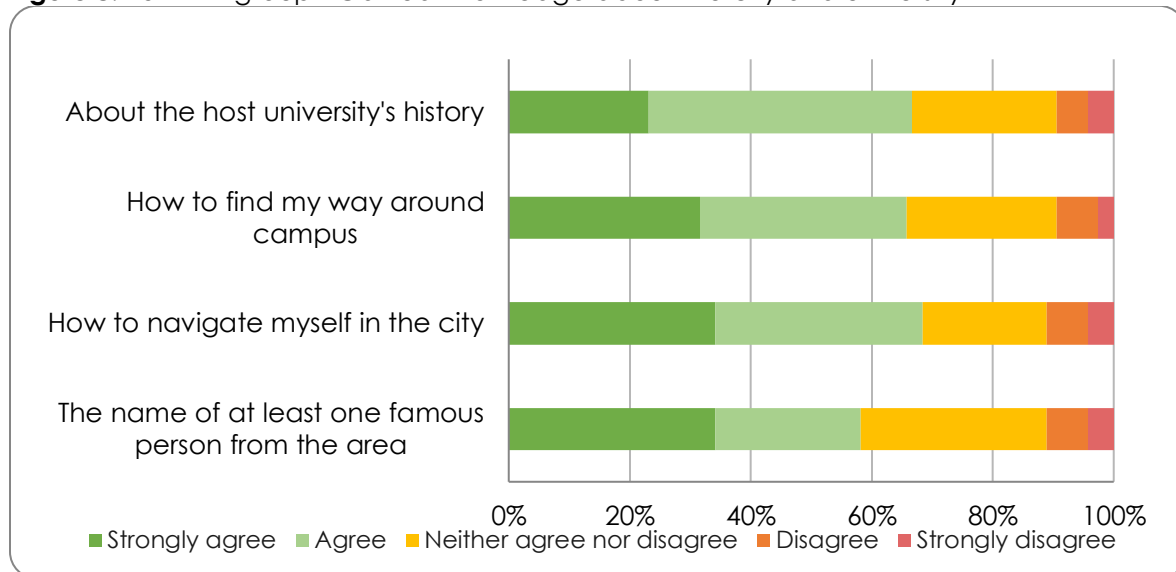
### 6.3 Knowledge about the city where the university is located

Respondents were then asked to assess the acquired knowledge about the city where their host university is located. On average, around 65% of respondents in the EULALIA group felt that their knowledge improved thanks to the language course, compared to 57% of respondents on average in the Reference group.

More specifically, within the Eulalia group:

- 67% of respondents reported that they have learnt something about the host university history.
- 66% have learnt how to find their way around the campus.
- 68% have learnt how to navigate themselves in the city.
- 58% reported knowing at least the name of one famous person from the area.

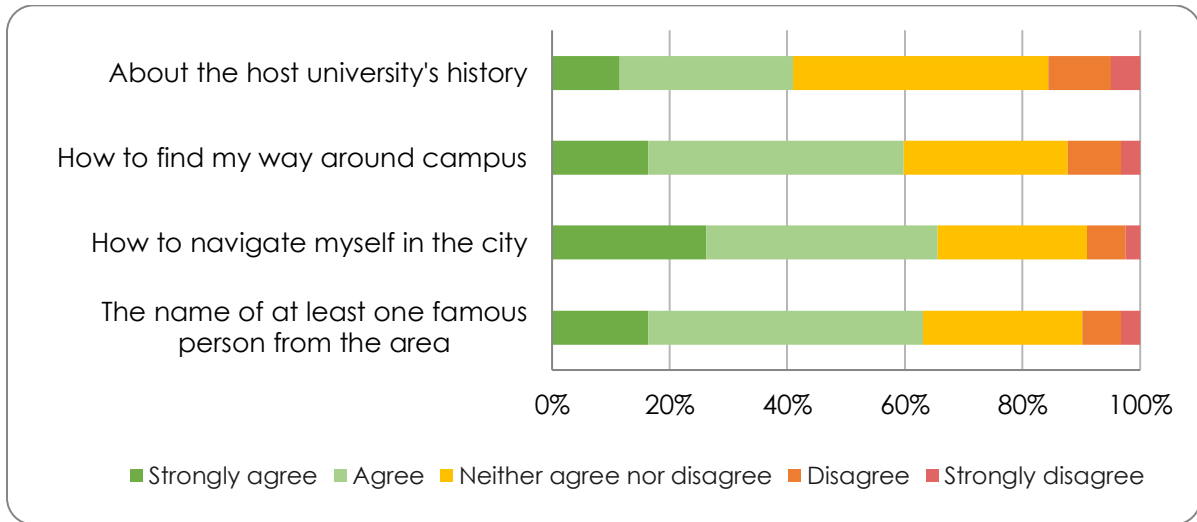
**Figure 8:** EULALIA group - Gained knowledge about the city and university



In the case of the Reference group:

- 41% of respondents reported having learnt something about the host university history.
- 60% have learnt how to find their way around the campus
- 66% have learnt how to navigate themselves in the city
- 63% reported knowing at least the name of one famous person from the area.

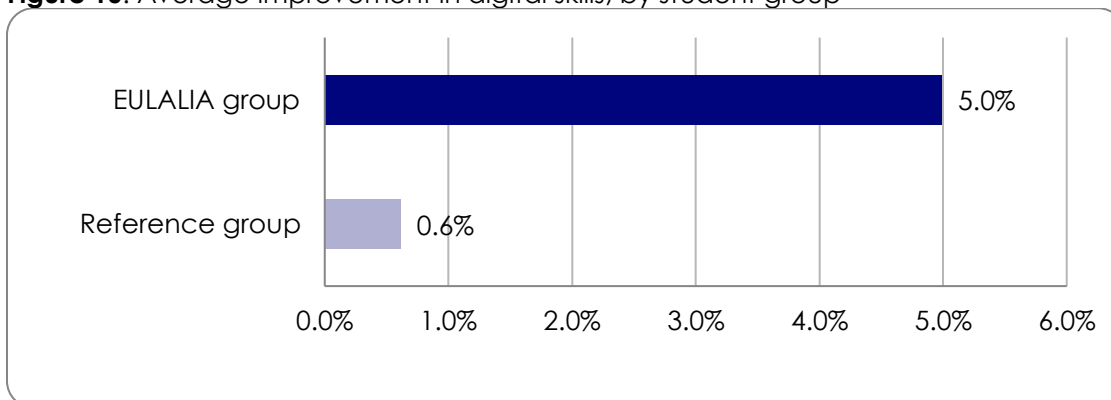
**Figure 9:** Reference group - Gained knowledge about the city and university



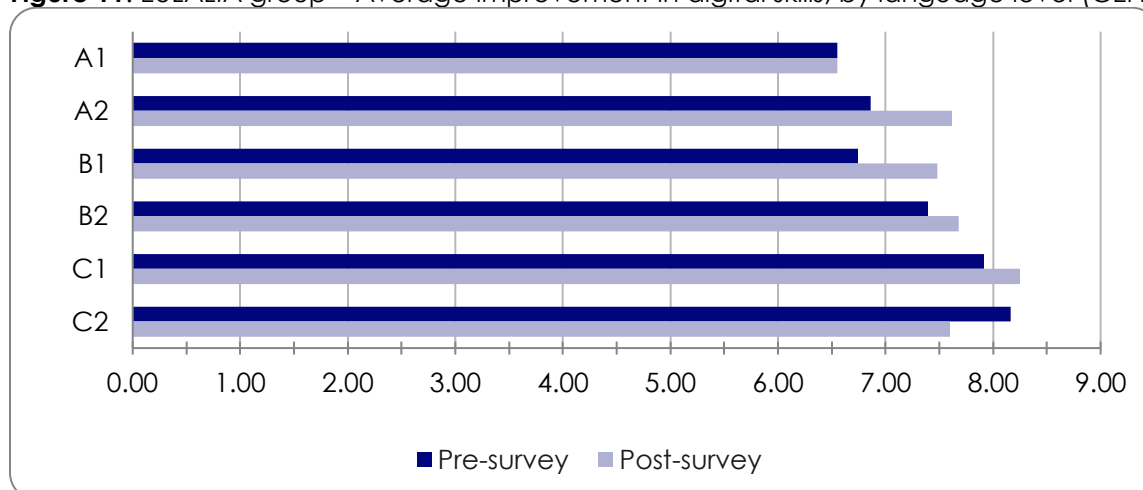
## 6.4 Students' digital skills

The final sections of the survey asked respondents about their level of digital skills before the language course and at the end of it. Respondents were asked to rate their digital skills on a scale from 1 (basic knowledge) to 10 (advanced knowledge). The same question was asked to the EULALIA group and to the Reference Group of students. The EULALIA group of students showed the largest improvement: on a scale from 1 to 10, the average improvement made by the EULALIA group was 0,5 (5%), while that of the Reference group was 0,06 (0,6%).

**Figure 10:** Average improvement in digital skills, by student group



More specifically, within the EULALIA group of students, major improvement in digital skills was visible among students with a language level ranging from A2 to C1 CEFR.

**Figure 11:** EULALIA group – Average improvement in digital skills, by language level (CEFR)

## 7 Evaluation of the EULALIA APP: main findings

Suitability of the EULALIA APP has been done using two different instruments:

- A qualitative one: the “Rubric for e-Learning Tool Evaluation”
- A quantitative one: The System Usability Scale.

The objective was to monitor the compliance with the pedagogical goal of the project and with GDPR, as well as the level of potential inclusion of students with visual or multisensory impairment. Feedback was collected from the perspective of experts and its own users.

### 7.1 The “Rubric for e-Learning Tool Evaluation”

In January 2022, UNINA invited two members of EULALIA Advisory Board to evaluate the EULALIA APP through the “[Rubric for e-Learning Tool Evaluation](#)” (Anstey and Watson 2018), specifically designed to offer a framework of criteria and level of achievement for e-learning tools. The rubric is organised in 8 categories, highlighted in different colours. Each category contains a set specific criterion against which the EULALIA APP was evaluated. For each criterion, the following scale applies: “works well”, “minor concerns” and “serious concerns”. The evaluation results are available in Appendix 4.

To sum up, the two experts provided the same evaluation and agreed in reporting that the EULALIA APP is overall working well. More concretely:

- The number of “works well” reported is 14 out of 27, and mainly refers to the EULALIA APP *accessibility, its cognitive, teaching and social presence, and GDPR compliance*.
- The expert reported 4 “minor concerns” on the EULALIA APP *functionality (hypermediality), accessibility (user-focused participation), technical aspects (desktop/ laptop operating systems), mobile design (functionality)*.
- 9 “not applicable” were also reported, as those criteria were considered as not relevant.

## 7.2 The System Usability Scale

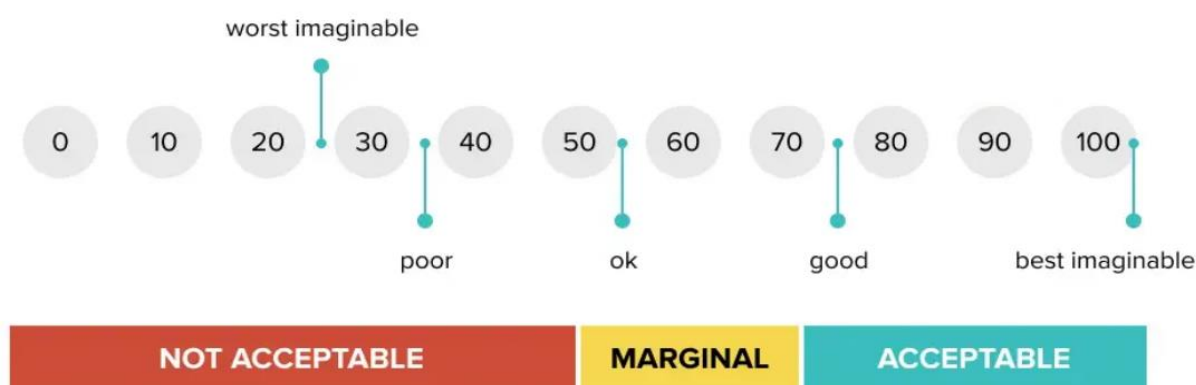
The System Usability Scale (SUS) is commonly used to measure the usability of a tool. It consists of a 10-question questionnaire to be filled in by end users once they had the chance to use the tool. The 10 questions were asked to the EULALIA group of respondents (EULALIA post-survey). The list of questions is available in Appendix 5.

Feedback was collected in the form of a final score ranging from 0 to 100. The procedure to calculate the SUS score is the following:

- Add up the total score for all *odd-numbered questions*, then subtract 5 from the total to get (X).
- Add up the total score for all *even-numbered questions*, then subtract that total from 25 to get (Y).
- Add up the total score of the new values (X+Y) and multiply by 2.5.

The EULALIA APP Usability Score was 53,63, falling into the category of OK (figure 12). Usability, is of course, a quality that does not exist in absolute terms, but widely depend on the context where the tool is applied (Brooke 1996). It is therefore important to stress that, in the case of the EULALIA APP, the context of reference where the APP was used played an important role and could have influenced the final score.

**Figure 12:** System Usability Scale – Acceptability Score



Source: <https://xd.adobe.com/ideas/process/user-testing/sus-system-usability-scale-ux/>.  
Image credit: [10up.com](https://www.10up.com/).

## 8 Interviews: main findings

A total of 5 semi-structured interviews were conducted online between late November and December 2021 by EUF, involving one lecturer per UP. In the case of UA, two interviews were conducted: one with a lecturer teaching Spanish, and a second one with a lecturer teaching Catalan.

A set of specific topics was covered during the interviews, to get a better understanding of the main advantages and challenges associated with the use of the EULALIA APP and report any relevant changes in lecturers' teaching practices. More concretely, the aim of the interviews was:

- To discuss lecturers' experience working with the EULALIA APP (opportunities and challenges).
- To detail any changes in terms of pedagogy, didactics, teaching strategies, as well as motivation and evaluation of the students.
- To gain feedback on the co-creation approach.

### 8.1 Overview

The lecturers interviewed teach a variety of languages in the four UP and overall have a quite heterogeneous knowledge of mobile language learning apps. The large majority reported having previous knowledge and some experience with this language learning methodology, although for one of them this was a new experience.



Considering the six language levels within the Common European Framework of References for Languages (CEFR), EULALIA students' language entry-level ranged from:

- the elementary level: A1 (25%) and A2 (18%).
- to the intermediate level: B1 (26%) and B2 (17%).
- and the advanced level: C1 (11%) and C2 (3%).

All lecturers interviewed participated in the workshop for teachers (ME) organised before the pilot phase, aiming at teaching lecturers how to use the EULALIA APP. A large majority of them participated in the workshops with students as well.

## 8.2 Why use the EULALIA APP?

Lecturers reported being overall keen to learn more about language learning apps as an innovative way of teaching foreign languages to Erasmus and other international students. In some cases, lecturers started using the EULALIA APP because of the limited language options in similar apps, or because it is an appealing tool to students:

"Well, the introduction of applications for foreign languages is innovative, right? For [language] itself is particularly useful, as we have limited resources. Here, you see, a certain amount of people speaks the language, so the more resources we have the better. Then it's even better when it's technological resources because this is relatively new, for us as teachers and for the students who have got the chance to use them."

"[...] working with Eulalia has allowed the teachers to experience different methods for welcoming foreign students coming from all over the world."

"Since the phone is so important for this generation of our students, well... just let it be the way to teach them."

The feedback received by lecturers on their experience with the EULALIA APP was overall positive, although necessary adjustments are needed to solve some technical issues and improve its usability. A teacher particularly appreciated its authenticity and context-based learning. Another teacher reported that having access to the material created by different students is an interesting additional resource.

"[The APP] is local, connected with the region. For example, in the book that we are using there is a lot of info on famous tourist cities, and our capital, of course...but not necessarily about [name of the city]. And that was also a huge factor. When they [the students] found out that it was about where they live, they were happy, and they said that. It was very helpful because they somehow learnt *how to react, how to live, how to be in the city*".

"We discussed that it might be a really interesting additional resource, for us. And especially Erasmus students could use it as a complementary resource, and they can make good use of anything extra they can get. So, it might be a good resource for them. And not just to create the materials, but once the APP is completely ready, it would be good to get access to other students' materials".

However, lecturers also named a few limitations they faced when using the EULALIA APP in their classrooms:

- Time restriction, as the APP has been tested only for 5 weeks, on average.
- The EULALIA APP needs to be better tested on all language skills (writing and speaking in particular) to meet all the different language needs.
- The number of OERs created was heterogenous in the 4 UP. More OERs should be created by each HEIs, to ensure valuable social and culturally diverse language learning.
- The EULALIA APP is only available in the Google Store, hence students with an iPhone cannot use it yet.
- The EULALIA APP usability can be improved. For the time being, there is no way for the user to move one-step backward/forward to the selected OER without having to begin all over again.
- It can be difficult to have technical support beyond the lifetime of the project.

To overcome main obstacles, lecturers suggest integrating the EULALIA APP into the course design, as a *complementary* language learning tool, rather than an *alternative* to traditional teaching practices.

### 8.3 What's different with the EULALIA APP?

Lecturers were then asked to assess any changes in terms of pedagogy, didactics, teaching strategies, as well as motivation and evaluation of the student groups. In broad terms, lecturers valued the following aspects:

- The EULALIA APP is a potentially innovative way of teaching foreign languages, showing that teachers are up to date.
- It enhanced group dynamics, concentration, and retention of information, as students were excited by the idea of working on their own material and using their phones.
- It also enhanced students' motivation and involvement, as students were looking forward to the game.
- It let students naturally progress at their own pace.
- It improved basic students' capacity to communicate and experience local life, thanks to the context-based learning.

All the above is well summarised by some of the lecturers' responses:

"The use of digital tools and active methodologies, inspired by the learning by doing principle, has enhanced the learning of the language while respecting cultural and linguistic diversity. We believe it is a playful and cooperative learning model, capable of stimulating linguistic, emotional and social intelligence at the same time".

"They [the students] got so involved with the gamification. I never thought that because I'm not a gamer, you know. I don't have that gene and I don't understand how and why..., but I see that for our students it's definitely working, they're gamers. It motivates them a bit more because they're used to it and then they've been creating it and they liked it."

"Well, it [the APP] gives more motivation, or it should give more motivation, let's say, right? For example, to have something in your hands means that you actually need to follow somehow. Even for differentiation... I'm using this word. What I mean is that I can go two steps further than my friend. I get there easy, faster, so I don't need to wait for that much. So, everyone can move at their own pace.

"They got very involved with the gamification... and it was easier to activate the group, I think. Usually, when I talk, they just sleep [laugh]...I can literally jump out of the window, and they wouldn't even notice. But this time it was different! This kind of involvement and activation of students is definitely the most important part for me... and I guess for every teacher."

There was consensus across the lecturers that "nothing" or "not much" has changed concerning the evaluation of students' competences. This is because the EULALIA APP was one of the resources used by lecturers during the language courses. However, a teacher reported that the high level of

commitment and active participation will be considered in the evaluation process.

“Not really. First, because it's one activity more, one little project more to be counted when assessing, of course, but it won't change the assessment.”

“Our focus has shifted towards educational feedback in order to provide students, step by step, with positive reinforcements that are useful for improving language learning. The evaluation methodology has therefore considered commitment and active participation in the project.”

“Not really. I think because the final assessment is an official examination, which is the same for all students all over the country. So, the final assessment cannot be changed.”

## 8.4 How to meet students' needs: the co-creation approach

When asked about the potential advantages of the co-creation approach – as a collaborative way to develop new ideas or improve existing ones by actively involving students – all the lecturers reported that it was the most successful part of the project.

The content of the OERs developed by UP included, but it's not limited to, local culture, gastronomy, cultural sights, vocabulary. All the OERs are freely available as apps on Google Play Store. For a complete overview, please refer to the following link:

<https://play.google.com/store/apps/developer?id=Eulalia+Apps>.

Students were invited to create learning material potentially useful for themselves and for future students.

“I think that it's the most interesting part of the project, for the time being at least. Creating things together, writing, recording together... that's interesting. Also, creating things that might be useful for other students in the future. It's a collaborative project, which is good but, at the same time, it can be useful for other students in the future. It has these two ways or meanings and I think this is really interesting”.

The idea of co-creation does not imply a level of equality between parties, but instead focus on *“students' active participation, learner empowerment, shared decision-making, student agency, and negotiation of learning and*

*teaching*" (Bovill 2020). This very aspect was also highlighted by the lecturers interviewed:

"Then, for example, local traditions, which was very nicely done. It was created by the students, and they had to do some research. They had to find some info about [country] because well... we are in the middle of the pandemic. So, it was also a tool to get more knowledge about what they exactly are going to do soon, when things will be better. The all process was pretty fast going, and students got involved and I think that when I would do it once again, I would give more place to the students. Because they did a really great job, and we are very proud of them".

"But the more interesting part of EULALIA for us is the co-creation, the creation of a new app, because that's where students negotiate. They have to speak to each other. They have to interact. They have to write a small piece of text, they have to record it. They have to find information about the topic, take pictures so it's more creative. Of course, you could do all this without an app. But the fact that at the end of the process there will be an app online with their own work is really satisfactory and it's motivating".

The advantages of the co-creation approach were visible for students and teachers as an effective way to foster creativity, enhance collaboration and learning from each other, including peers. However, lecturers pointed out the use of these OERs is still at its infancy, as more OERs are needed.

## 9 Conclusion

The present report demonstrates that, albeit with limitations, the language teaching strategies in place in the four UP are responding to the need to incorporate new technologies into teaching and learning practices. Complementing traditional teaching methods with the use of the EULALIA APP has brought positive effects for both students and teachers involved in the project.

The co-creation of OERs embedded in the local context proved to be an effective solution to increase students' engagement, motivation, and empowerment throughout the learning process, as the educational material was produced and consumed by students themselves. Further, the student-centred approach allowed to better meet students' language needs. On their side, lecturers were involved in designing up-to-date and ready-to use learning content in different languages, creating a collaborative international environment and further promoting the use of technologies at their own institution.

To conclude, the EULALIA APP offers a variety of learning material that can be freely accessed and applied to other HEIs, hopefully supporting linguistic diversity and heritage in Europe.

# Appendix 1

## Part 1– Information sheet and interview manuscript

### Practical arrangements

The interviews are designed for one interviewee and one interviewer. EULALIA University Partners (hereafter called UP) are expected to suggest and confirm one lecturer each who have been working with the app to be interviewed.

The UP are expected to facilitate the contact between EUF, the interviewee, to fix the date and time for the interview. The interviews will be conducted at the end of November, online, lasting approximately one hour/one hour and a half.

The interviews will be recorded, a transcript will be written following the template below and approved by the interviewee. The transcripts will be anonymous and published in annexe to the final IO4 report. Participants will be provided with a copy of the signed consent form (below, pp. 4-5).

When? End of November

How long? 1h - 1:30min max

Format? Online

Language? English

Where? MS Teams, meeting room will be provided by EUF.

### Purpose of the Interview

To feed the answer of:

*Do lecturers who have been working with the EULALIA applications and methodology describe any positive trends in their didactics and pedagogics by the application of the tools?*

### Interview manuscript

Introduction	
Institution?	AMU/UA/UNINA/UOM
Language thought with EULALIA?	
Students' language entry level?	
How many students?	
Participated in a workshop for teachers (ME)?	
Participated in a co-design workshop with Erasmus Students (ME)?	

Motivation to start working with EULALIA?	
-------------------------------------------	--

Working with EULALIA	
How has it been working with EULALIA? Why?	
<b>Pedagogy,</b> Practices, have you changed your pedagogy when using the EULALIA methodology? Please elaborate	
<b>Didactics,</b> Would you say teaching with EULALIA leads to different learning? Please elaborate	
<b>Teaching methodology</b> Have you changed your teaching strategies when using EULALIA? How? Please elaborate?	
Did the use of EULALIA change your attitude to the use of gamification in the langue and culture teaching process? If so, how?	
<b>Co-creation,</b> Any difference/shift in the balance of co-creation? Please elaborate	
<b>Evaluation</b> Have you changed your evaluation and assessment strategies when using EULALIA? If so, how?	
Do you find working with EULALIA beneficial for you as a teacher? Why?	
Do you find working with EULALIA beneficial for your students? Why?	
Have you noticed any changes in the motivation of your students when working with EULALIA?	
Have you noticed any changes in the results	



achieved by your students since they started using EULALIA?	
-------------------------------------------------------------	--

<b>Perspectives</b>	
Will you continue to work with EULALIA?	
Would you recommend a colleague to apply EULALIA tools and methodologies?	
List the topic/OERs you find most useful and the least useful with EULALIA	
Which topic would you add (if any) to the OER list?	
Do you have any recommendations for the EULALIA team to improve EULALIA APP/OERs?	
Any Other Business	

## Appendix 2

### Part 2 – Interview Consent Form

EULALIA  
Enhancing University Language courses with an  
App powered by game-based Learning and  
tangible user Interfaces Activities

Project number: 2019-1-IT02-KA203-063228

[Name of the institution] is a partner institution involved in the [EULALIA European project](#) (Enhancing University Language courses with an App powered by game-based Learning and tangible user Interfaces Activities).

Participants are asked to complete an online interview on Teams. As a participant, you will be asked questions concerning your experience working with the EULALIA APP. Your participation will require approximately 1h30 min.

The information collected during the interview is likely to be uncontroversial.

With your permission, the interview will be recorded. A transcript will be written following a template (interview manuscript) you will be asked to approve within a week after the interview. Electronic data, signed consent forms and copies of the interview transcripts will be stored on a password-protected computer. You will be provided with a copy of the consent form.

The interviews (audio files and transcripts) will be solely used to serve the EULALIA project outcomes, namely the IO4 report, and among the EULALIA project partner institutions.

Your participation is completely voluntary and anonymous. If you choose to withdraw from the study, all information you provided during the interview will be withdrawn from the study and destroyed.

I have read and understood the information provided above, and hereby consent to participate in this research under the following conditions:

I consent to the interview being audio recorded.

Yes

No

Participant Name \_\_\_\_\_

Participant Signature \_\_\_\_\_

Date \_\_\_\_\_

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Interviewer Name \_\_\_\_\_

Interviewer Signature \_\_\_\_\_

If you have any concerns about your treatment as a participant in this study, please contact [fabiana.minneci@uni-foundation.eu](mailto:fabiana.minneci@uni-foundation.eu).

## Appendix 3

### Transcript - Interview n. 1

F.M.	OK, thanks a lot for taking the time for this interview. My first question is quite generic really. Can you tell me the name of the institution you are currently working at?
Interviewee	Yeah, we work at the language centre of the [university name], so we are part of the university, but we're not part of the [school name], but an independent centre: the language centre.
F.M.	And can you tell me what language you are teaching there?
Interviewee	[Name of the teacher] is one of our [language] teachers but we also have English, French, Italian, German courses.
F.M.	Perfect, thank you – so which is the language thought with EULALIA?
Interviewee	It's [language]. All international students, all exchange students get a language class as part of their study abroad experience here or the exchange, so all of them have a [language] class.
F.M.	Can you tell me more or less what's the entry-level of the students currently working with EULALIA, in CEFR if possible?
Interviewee	We used... well [name of the teacher] used it only with B1 students. We have all levels here, but we realised that it was better suited for B1 students.
F.M.	And how many students are currently using, I mean working, with EULALIA?
Interviewee	I'm not sure. [Name of the teacher], how many students do we have? 16.
F.M.	And my next question refers to the workshop for teachers and students included in the EULALIA project. Did you participate in any of these workshops?
Interviewee	Yeah, we both did – in separate ones, but we both participated.
F.M.	And did you also participate in the workshop with the Erasmus students then?
Interviewee	[Name of the teacher] did. She was part of the workshop that [name of another colleague] did with our students. I was not part of it, but she was there.

F.M.	Thank you. Can you tell me what's the main reason why you decided to use the EULALIA APP?
Interviewee	Well, I know it's a bit confusing because we are the language centre and they are the language service. It sounds kind of a weird thing, but we cooperate closely. [...] There are plenty of things we do together – so it makes sense for us to apply EULALIA in our courses and we are the only ones on-campus teaching [language] for international students. So, we thought that applying EULALIA APP in our classes would be interesting for our students, obviously.
F.M.	Perfect thank you – And how is working with the EULALIA APP for you? I mean, what do you think of the APP?
Interviewee	Well, I discussed it with my colleague before, because I knew you want me to explain a bit. It's been a nice experience, but it's been a really restricted use due to time limits. Then, those courses for Erasmus students are quite short in the total number of hours and there's a lot to be done asynchronously. So, well... there've been some time restrictions and the EULALIA APP is not completely developed yet, but still, we could use it. It was nice for the students to create these materials that future students might use too. So, it was really nice as a class activity – similar to some others we do, but still... limited in use, due to time restriction and to the APP situation. It was OK other than that.
F.M.	Thank you. My next question relates to pedagogy and didactics. As a teacher, would you say that using EULALIA changed your pedagogy and/or lead to different learning processes?
Interviewee	Well, I don't think so. Probably not because it's quite similar to things we normally do. I mean, most of us already used a lot of competitive work in collaborative projects and tasks in class. And especially [name of the teacher], I mean, she's an expert and has been creating so many materials with us. She's developed a lot of our material because you see... we have our own material. We didn't use a textbook in courses related to production, interaction activities in oral language. So, I think it's basically not that new, in the sense that we already do that type of thing. That's why we also wanted [name of the teacher] in the project: because she's someone who's already using that type of creative work, and I would say she is involved in these meaningful tasks if that makes sense.
F.M.	I see, in a way, it is a consolidation of the work you are currently doing already.
Interviewee	Yeah.
F.M.	And relating to the teaching methodology, any change at all?
Interviewee	No, not really. It's basically an action-oriented methodology and we already do this, which I'd say it's coherent with the EULALIA approach.

F.M.	What about gamification? Did the use of EULALIA change your attitude towards the use of gamification in learning?
Interviewee	I would say they didn't get there because they just created the APP, but there's no gamification actually in what we applied. So, it doesn't change much in this case, no. They co-created the materials and maybe in the future, when the APP is done...completed, I mean, it might, you know, affect it. But for the time being, there's no gamification really.
F.M.	Speaking of co-creation: do you think that the involvement of students, lecturers in this co-creation approach was beneficial or not?
Interviewee	I think that it's the most interesting part of the project, for the time being at least. Creating things together, writing, recording together... that's interesting. Also, creating things that might be useful for other students in the future. It's a collaborative project, which is good but, at the same time, it can be useful for other students in the future. It has these two ways or meanings and I think this is really interesting.
F.M.	Great, thanks. Although I know that the activities have not been completed yet, do you think that your evaluation and assessment strategies will change?
Interviewee	Not really. First, because it's one activity more, one little project more to be counted when assessing, of course, but it won't change the assessment. And then, as we said, they haven't completed yet so... it's definitely not altering anything.
F.M.	Can you tell me if working with the EULALIA APP as a teacher is beneficial or do you see any challenge for yourself or the colleagues who might use it?
Interviewee	We discussed that it might be a really interesting additional resource, for us. And especially Erasmus students could use it as a complementary resource, and they can make good use of anything extra they can get. So, it might be a good resource for them. And not just to create the materials, but once the APP is completely ready, it would be good to get access to other students' materials. We've discussed with EULALIA researchers before and realised that one of the most important things would be to address real-life experiences for Erasmus students, like tutorials or things they prepare for future students. For example: "tips for your life in [name of the city]" or any other city. That type of thing that connects both sides of the APP: the co-creation part with the user part and I think that can be really interesting in the future.
F.M.	So, if I understand correctly, the benefits would be particularly evident for students, and as a teacher, it would be mostly used as a complementary resource, one among other resources. Is that correct?
Interviewee	Yeah, I think is more an additional resource, indeed.

F.M.	Perfect, thank you. And can you tell me if you have noticed any changes in the motivation of your students working with the APP and if you observed any changes in the results achieved?
Interviewee	I don't know, right now probably not because it's quite limited. I mean, the main result achieved might be the motivation, as this is a task that might motivate the students. But it's not necessarily so different to other things they do, so the results are quite similar now. And also, it's been so brief... there's been a short time span. There's no way to know how much impact this could have in the long run. Also, students will complete everything right before they leave, so it's difficult now to measure the impact it might have. Maybe in the future, if it's done several times in the semester, maybe some specific assessment will be devoted to that, and we could actually see if there's a clear impact or at least it's just helping with motivation and the practice. So, it will probably have a positive impact, but it's impossible to measure now.
F.M	Relating precisely to the future use of the APP, my next question is: will you consider using the APP in the future and would you recommend it to your colleagues?
Interviewee	Once the APP is ready, it would be something to recommend. For the time being though, the only thing we can do is to suggest... like, given the addresses of the other materials that have been created in the workshops and stuff. For example, there's something on [name of the city], something else on [name of the city], there are different things available. We will give them access to all that in case they want to do an extra activity out of class. But it will be definitely something to recommend once the APP is ready so that they can download it and then get access to the different resources there. It will be also easier for teachers to incorporate it into their classes. Yeah, because there will be some kind of authoring tool within the APP, probably, so it's not like you need these specific workshops all the time, so it will be probably easier to use it in the future. I think it's an interesting resource, but it will be more interesting once it's complete.
F.M.	Yeah, definitely, I can understand. My next question then is mostly related to the use and utility of these OERs: is there any topic you find particularly useful or not so useful?
Interviewee	I think the connection to the local life is the most interesting part of it. Many teachers already do that, but normally it's limited to the class walls. Like: "let's pretend you're writing a tutorial on" or "you're writing tips for future Erasmus students on what to do in [name of the city]". That's great, it's classwork and we do that. I mean, we've done that for 20 years or more. The thing is that, with the APP, you could do that connection to local life and real-life and make it available for other students too. And this is a very specific result of that work and might be useful for future students. Also, from the perspective of students, creating something that you know will be then consumed, used, by someone else it's interesting. It's key for the APP to make sense in the future that all those OERs will be connected to local life and to be usable for other students.

F.M.	And is there any specific topic would add in the future?
Interviewee	The good thing about this APP is that students come up with the topics, so students find out what other students might need in the future. The idea is that the analysis is done by them and not by us. Obviously, we can also think about it. For example: "I don't know how to find an apartment" or "How do they find the right place to buy food from their country?" Or local traditions and culture. There are many things, but those other things... well, we think about them as teachers. I think the good side – or one of the most interesting things of EULALIA – is that students can come up with their own need analysis, you know, and they can come up with their own topics. Which is good.
F.M.	Definitely. We are now close to the end, so my final question is: "Do you have any recommendations for the EULALIA team on how to improve the EULALIA APP?"
Interviewee	I don't know what they can improve because first, we need to see the complete APP to then know and assess it. But there's probably a lot of development ahead. But that is out of our scope.
F.M.	Sure. Well, that's really all from me. Feel free to ask any question... or if there's anything you would like to discuss, feel free to.
F.M.	Thank you so much for your time. It was really nice meeting you and perhaps we'll meet at the final conference.
Interviewee	Thank you, bye.

### Transcript - Interview n. 2

F.M.	Thank you for your time! The recording should start in a couple of seconds, and I am going to start with a few broad questions if that's alright.
Interviewee	Yeah, sure.
F.M.	Which institution are you affiliated with?
Interviewee	The [university name].
F.M.	And what language are you teaching to the students, using EULALIA?
Interviewee	[Language], as a foreign language though.



F.M.	Thank you. Can you tell me more or less what's the entry-level of your students working with EULALIA?
Interviewee	They finished the course with an A2 certificate.
F.M.	Thank you. And how many students did you have in your class?
Interviewee	Well for [language], it's about 17 students.
F.M.	Have you been involved in any workshop for teachers, organised as a Multiplier Event within the EULALIA project?
Interviewee	What do you mean? In which way?
F.M.	Sorry, what I mean is: did you participate in any of these workshops?
Interviewee	Oh yes, I did. I have participated in this training for this course.
F.M.	Ok, and did you participate in the workshop with the Erasmus students?
Interviewee	No, not with the Erasmus students. Which course are you referring to? No, I had a course enabling me to teach, not with Erasmus students.
F.M.	I'm asking this because during the first part of this project, basically, the idea was to involve lecturers or professors that would use the EULALIA APP and to teach or explain to them how to use the APP.
Interviewee	No well, we were there to discuss it, I had a meeting with lecturers involved in this project and they explained to us what EULALIA is, etc., etc., and when to use it, how exactly we should use it...this kind of information.
F.M.	OK, so basically the lecturers explain to you how to use the APP?
Interviewee	Yes, indeed.
F.M.	Great, thank you. And can you tell me why you decided to start working with the EULALIA APP?

Interviewee	Well, the introduction of applications for foreign languages is innovative, right? For [language] itself is particularly useful, as we have limited resources. Here, you see, a certain amount of people speaks the language, so the more resources we have the better. Then it's even better when it's technological resources because this is relatively new, for us as teachers and for the students who have got the chance to use them.
F.M.	Ok, perfect. And now that you are using EULALIA, do you think that pedagogy changed somehow? Have you applied new practices? If so, did those influence the learning process?
Interviewee	Well, now that I'm using the APP, yes it changes. I mean, from simple handouts or PowerPoint, now we're using more interactive tools. Students have their own gadget, and they can use it, you know... it's more hands-on. I would have used some hands-on learning, but then they have to click on something that is mine, you see? Not something that it's in their hands. This is different now because it's there: they can use it from their mobile, from their tablet, etc. It's there, wherever they are.
F.M.	I see, sure.
Interviewee	Also, if I'm teaching online – right now, for example, because of COVID-19 I have to teach online – they will tell me which is the answer, and I would click it forward because I'm the one sharing the PowerPoint on screen. It's different than what I did before when they could just stand up and come, you know, in front of the class and click themselves. With EULALIA, they have the tablet, or their Android phone and they could click on it themselves, so it's more hands-on that way.
F.M.	Absolutely. So, my following question is: Do you think that teaching with EULALIA leads to different learning outcomes?
Interviewee	Well, it gives more motivation, or it should give more motivation, let's say, right? For example, to have something in your hands means that you actually need to follow somehow. Even for differentiation... I'm using this word. What I mean is that I can go two steps further than my friend. I get there easy, faster, so I don't need to wait for that much. So, everyone can move at their own pace.
F.M.	Makes total sense and it's actually linked to my next question, which has to do with the teaching strategies. If I am not wrong, you were saying before that you are currently adjusting them. Is that correct?
Interviewee	Exactly – it would help me as a teacher to have different students working at their own pace at different times. So not everyone jumps simply because they need to follow me, but it's more student-oriented learning, rather than teacher-oriented.
F.M.	And do you think that using this APP changed your attitude towards gamification at all?

Interviewee	My attitude [lost connection for a couple of seconds]. I already believed that this should be the next step within the learning process... technology is the way forward, I believe. So, in a way, I was already into this kind of resource. Again, the more the merrier. As for EULALIA, obviously, yes, it affected me in a good way: I would search for resources that are similar.
F.M.	Do you think that involving students in developing possible useful ideas for other students was beneficial or not?
Interviewee	Can you repeat the question, please?
F.M.	Yes, sure. I mean, do you think that the co-creation approach – as a collaborative way to develop, improve new ideas – was somehow valuable? Did you experience any difference during the learning process?
Interviewee	Well, this APP I think is limited to creating ideas. Because it has to do with following the steps that are on the APP. So, there's a limit to how they can be creative. Every APP differs from one another, of course, but in this one, you had to follow a map...so, following a map limit the way one can be creative, I think.
F.M.	Yes, I understand. If further developments of the APP are foreseen, new activities could be implemented, and this aspect will be enriched. Now, looking at the assessment and strategies put in place to evaluate the work being carried out by the students, did you experience any difference in the process?
Interviewee	Well, it's easier for me to understand what they know. I'm not simply referring to the language itself, because it was cross-curricular, so to say: between the culture and the language. And I teach culture as well – not to this specific group, but I had an idea where they stood in culture and also where they stood in [language]. So, for me, it was better. I was not accessing them on culture at all, but I could have a better understanding of what they were learning and understanding in the two subjects.
F.M.	And do you find working with the EULALIA APP beneficial for you as a teacher? Why?
Interviewee	Of course. As I said before we are living in the 21st century so it's the way forward.
F.M.	And do you think your students would say that working with EULALIA is beneficial for them?

Interviewee	Well, most of them I would say yes. Again, I'm teaching to [specific group], so, uhm, the touch of technology might be a little bit out of their comfort zone, so to say. But most of them are enthusiastic about technology! They would like to learn about technology as well, so that's another thing that they're learning. Also, they are learning how to use the apps. It wasn't always that easy, you know? Especially for the eldest ones, because they're not used to that.
F.M.	I see, of course... and I think that my next question would make even more sense now, because I wanted to ask you if you noticed any changes in the motivation and results achieved by your students when working with EULALIA.
Interviewee	Well... younger students would probably find it more interesting. They would probably love it. Love the idea that they're not working on handouts, that they're not working on a normal PowerPoint that they've known since they were kids, right? [...] I mean, to have something on your phone or on your tablet, that you're using in daily life, and now you're using it to learn! Something that you would feel more comfortable, alright? And even the fact that students can go at their own pace. As I said before, to have your own APP rather than the whole class having it would motivate them. Not simply motivate them but, as a result, they can learn without rushing things...they would not feel lost.
F.M.	So, will you continue working with EULALIA, in the future?
Interviewee	Yes, I would. As I said before, it's great, especially for [language] that is very limited. It's not like English, which is, you know, everywhere around the world and you could find resources everywhere. With [language] is different, it has this disadvantage, and EULALIA is making it easier for us to create resources like this.
F.M.	And would you recommend the EULALIA APP as a tool and its methodologies to your colleagues?
Interviewee	Of course, I would. I would since I believe that it helped me.... So I would believe that it will help other teachers as well. It's great.
F.M.	Can you list the topics that were particularly useful for you and one that was not so much?
Interviewee	That I used or that can be used in the future?
F.M.	That you have used already.

Interviewee	For example, since I teach at the A2 level, it made sense to have the tenses, the verbs, along with the vocab that I use... having a mix between the vocab and for example the imperative used in a recipe, like [name of the dish] which is a soup. That was great. These were topics that I covered, that I had to cover, and it served me as revision. So, it was very well created.
F.M.	So now, I'm asking you: would you add anything to the APP? Would you add any other topic that is currently not included?
Interviewee	The house. There was a little bit about the kitchen, but the house is very important. Then the workplace would be also very important: to learn vocab about this is very important for them to better integrate into society, and that is also one of the main reasons for the course I teach. So, I would say the regular daily life, obstacles, daily life routines, the job, and the workplace. Then the house and life with their children. That you know would be great, yeah.
F.M.	Great, thank you. And my final question is: "Do you have any recommendations for the EULALIA team on how to improve the APP?"
Interviewee	Well, as I said before, I would add more subjects to reach more capacity of the language. And one comment is that the APP is not on iPhone, for example, but only on Android and this is a little bit of a problem, considering that Apple phones are quite popular here in [country], as everywhere else.
F.M.	Yes indeed, it makes sense. Well, thank you very much for this interview, this was really it from my side. But if you have any questions or comments, please feel free to ask.
Interviewee	Well, I have a small question: you told me that the APP is going to be further developed because this is the beginning?
F.M.	Well, as you know EULALIA as a project will end early next year, in February. During the lifetime of this project, the idea came up to implement this APP with different... scenarios, let's say, the map being one of them. But you see, this is something we will need to ask the UNINA team and Smarted. But this also explains why I wanted to ask you what you think is currently missing or what can be improved.
Interviewee	Alright. Well, in that case, I think one part to add would be the imputing: not just clicking on something but imputing by typing (for example the imperative, as I was saying before). Not simply clicking on flags or things like that, but testing students' abilities on something else than listening, reading. Do you know what I mean?
F.M.	Definitely and I think this is indeed valuable feedback for the team. Anything else you would like to add? We still have the time, as I foresaw a bit too much time for the interviews. [...]

Interviewee	Well, no not really. That's it.
F.M.	Ok. Thank you for your time then. Bye.
Interviewee	Bye, bye.

### Transcript - Interview n. 3

F.M.	Thank you for your time! The recording has now started, you will see a flashing red light. As you have probably seen in the information sheet, I would like to start with some generic questions, if that's alright with you. The first one is: "can you tell me in which institution are you currently working?"
Interviewee	Sure, the [university name], in [country].
F.M.	Thank you. And what's the language you're teaching to the students working with the EULALIA APP?
Interviewee	It's [language].
F.M.	Perfect – and how many students do you have in your classroom, roughly?
Interviewee	So, I have a list here, to show you the exact number and not to forget anyone – because I somehow don't trust my mind anymore [laugh]. So, the testing group is [name of the programme] and has 8 students, then the [name of the programme] 18 students, and Erasmus students with an individual study programme: 14 students. And the Reference group – working with the paper version of the EULALIA materials – was the [name of the programme] 12 students from the first year and 24 students in the second year.
F.M.	Perfect, thank you very much for this detailed information. So basically, you've been testing the APP not only with Erasmus students but also with other students, internal students... is that correct?
Interviewee	Yes, yes – with our regular students from two faculties: [faculty name] and at the [name of the programme]. These are, you know, two different types of studies.
F.M.	Perfect, thank you, and what was the entry-level of your students?
Interviewee	It's A1/A2 and sometimes B1, especially with [name of the programme].
F.M.	Great, thank you. Did you participate in any of the workshop included in the EULALIA project, for teachers?

Interviewee	Yes, we had a meeting about how to schedule the work and how to divide the work, I mean making it... "you will be working with those maps, those materials and so on". We had a kind of... how to call it: internal workshop? Just for us. It was very nice, by the way. It was from [name of the colleague] from the [name of the department].
F.M.	That's nice to know, thank you. And did you participate in the workshop with the Erasmus students as well?
Interviewee	Yes, we had the workshop with students because some of the material was prepared by our students and they also needed to know how to make it, how it should look like and how to work with it. So yes, we did it and it was the most fun! It was very nice for us and for our students. They were so involved and so proud of themselves, knowing that they were going to participate in preparing an application. So, it was extremely important for them. It was nice and especially for the students from [country]. For example, for our [student group], it was really something big, really important: I mean, to be participants and preparing an application...even the word is, you know, <i>magic</i> for them. So, it was very nice.
F.M.	I'm very glad to hear that, thank you. Can you tell me now why you decided to start working with the APP?
Interviewee	Yeah, because I suddenly became a fan of online teaching. You know, like, five years ago I was not very much involved in this type of teaching, because it was not really useful for me. I thought it was a kind of teaching that maybe will be needed at some distant part of the time, but not every day, or just like that... straight away. And then it occurred that from one day to another we all needed to use all these applications, programmes, online platforms, TEAMS, which is not the easiest tool in my opinion. So, I decided I wanted to use EULALIA because it's a kind of virtual tool that is very helpful and it's quite engaging, and then students are working fine with it. I didn't know that yet, but I was assuming that they would be interested in it...it's pretty interesting. That's how I changed my mind. Then, it's also a kind of personal story here. Yes, because I was not a huge fan of technology, but I became one now, and I think that for younger students can be interesting too. For example, my [student group]. They are so much involved with this device! During the lecture they usually have: a computer, then one tablet, a second tablet, and a phone, or multiple phones... I thought that it was just for, you know, entertainment. But, it's not. They are using it to learn, and it's very good for them, it's efficient. So, why not use it and why not do something about [name of the city], about the local place where they live now. They can use their phone and even in a better way, I think.
F.M.	It makes sense. And how was working with the EULALIA APP for you, as a teacher?

Interviewee	<p>It was fun! Especially writing material and then also helping others writing material...it was fun. And then you know, in the paper version or the APP, we basically did the same things. But this time, during the interaction, I was observing students that were using their own material. As far as I can remember the part on local traditions was extraordinary. Students had to find out about those traditions and then decide on their own what is important and what it's not... and then they also had to prioritise as not everything is equally important. You know, it was very pleasant to watch this, to see students so involved. As a teacher, it brought me joy, really. And then, since they are using their phones all day, why not use it to teach them something. So that's why it was also fun for me.</p>
F.M.	<p>As a teacher, would you say that using EULALIA changed your pedagogy and/or lead to different learning processes?</p>
Interviewee	<p>I think the APP motivated the students a bit more, as a phone is something they are used to having in their hands all day. Also, they got very involved with the gamification... and it was easier to activate the group, I think. Usually, when I talk, they just sleep [laugh]...I can literally jump out of the window, and they wouldn't even notice. But this time it was different! This kind of involvement and activation of students is definitely the most important part for me... and I guess for every teacher. So, since the phone is so important for this generation of our students, well... just let it be the way to teach them.</p>
F.M.	<p>And what about the gamification part? Can you tell me a little bit more about it?</p>
Interviewee	<p>They got so involved with the gamification. I never thought that because I'm not a gamer, you know. I don't have that gene and I don't understand how and why..., but I see that for our students it's definitely working, they're gamers. It motivates them a bit more because they're used to it and then they've been creating it and they liked it. So, it works excellent, and it was easy to use EULALIA. So, well, I think the element of gamification was very important and I didn't even expect that.</p> <p>I think they had fun! The most popular part, well, I don't know how to say it properly because it's about vulgarisms. We had a part about vulgarisms that is no longer available unfortunately because Google took it off. But that part was the most interesting for our students and the level of activation on that, well it was something! The level of involvement during this was huge. One student told me that he never had such a great lesson ever. The truth is that these are the words that they hear the most, from the people they have contact with. So, they finally had the opportunity to know what these words mean, when you can say something when you can't because it's inappropriate. I mean, how strong something is so that you cannot use it just like that because it brings consequences. And also, what does it mean? Because you know, maybe they know that it's vulgar, but they have no idea about the meaning. Well, every language has the same, those vulgar words are the first words that you learn.</p>
F.M.	<p>Thank you. And did you notice any change in your teaching strategies?</p>



Interviewee	Well, I think that the gaming experience brought up something new...different. I'm referring to the process of realisation, when you are about to win something or finish, complete something. It was not so important for me as a person, but now I know that for my students it is important and all this also brought their attention very, very high. It was interesting.
F.M.	Thank you. Can you tell me now how was the co-creation experience? Any difference at all?
Interviewee	<p>It was pretty nice. I mean everyone was preparing the materials for their own, but we also decided that some of the material must be prepared by the students themselves. We decided that it was going to be something easy but at the same time something not that easy. For example, soups. Soups are very easy, so my friend did it because it's very easy and it wouldn't be so much of a challenge for students with this language level.</p> <p>Then, for example, local traditions, which was very nicely done. It was created by the students, and they had to do some research. They had to find some info about [country] because well... we are in the middle of the pandemic. So, it was also a tool to get more knowledge about what they exactly are going to do soon, when things will be better. The all process was pretty fast going and students got involved and I think that when I would do it once again I would give more place to the students. Because they did a really great job and we are very proud of them.</p>
F.M.	This is very nice to hear. In terms of evaluation, have you noticed any change in the evaluation or assessment strategies with EULALIA?
Interviewee	I think it's fine. Half of the students were using the APP and the other half more or less were using the same material but on paper. It was done the traditional way: they had to come to class, we gave them the papers they had to read something. They were doing the activities on paper, but it was not the same. I mean, students were working during classes, of course. They finished the assessments and we checked them together, but there was not the same enthusiasm. None of that... energy: "Oh look! Something is moving". Or: "Shut up, it's saying something". So with the APP, it was a completely different level of activation of the group.
F.M.	Now I'll probably ask you to repeat a bit something you just said, but, do you think that for you as a teacher, and for your students, EULALIA was beneficial?
Interviewee	Definitely for the students...because it's local, connected with the region. For example, in the book that we are using there is a lot of info on famous tourist cities, and our capital, of course...but not necessarily about [name of the city]. And that was also a huge factor. When they found out that it was about where they live, they were happy, and they said that. It was very helpful because they somehow learnt how to react, how to live, how to be in the city. It was very, very nice to watch that.
F.M.	Absolutely. And then also in terms of motivation, isn't it?

Interviewee	Yes, this learning process helped them open up, I think. Because sometimes our student groups just talk with themselves although they live here, in [name of the city]. They study together, they sometimes even live together and they don't have any contact with locals. People with [country] culture, for example. They live here for a year, and they have never tasted local food. Yes, I know a lot of such cases, especially students from [country]. But with the APP, for example, they learnt how to order [local cucumber soup name] and it was very important for them.
F.M.	Definitely. Did you notice any change in the results achieved by the students, perhaps even if not strictly linked to the language course?
Interviewee	They probably believe in themselves more, as they can go outside and communicate. Because when we do a language course, we focus a lot on grammar because the truth is that [country] grammar is not easy and you cannot speak properly without grammar. During the normal course, the grammar is pretty important and they hate that. But here we focused more on communication, how to activate communication and we didn't expect that communication to be very precise grammatically. We wanted them to say whatever they wanted, and they liked it. They finally had the chance to do something different than simple things to remember, places, names. It was kind of a relief for them.
F.M.	So, in the end, do you think you will be working with The EULALIA APP in the future?
Interviewee	Yes, definitely.
F.M.	And would you recommend it to your colleagues?
Interviewee	Yes, this is happening already. We had the material from EULALIA on the table and some colleague asked me: "What is it? How does it work?". They were interested and when my friend showed them with the phone how it works, well...they wanted to try it as well. So, as you can see, it is spreading automatically.
F.M.	What was the OER that you liked the most? The topic that in your opinion was most useful for your students?
Interviewee	I think that the UNESCO one was very interesting.
F.M.	OK – Can you tell me a little bit more about it?
Interviewee	Yes, sure. It's the part of the APP that shows the list of UNESCO places in [name of the country]. Of course, during the pandemic they didn't have the chance to visit them, so it was extremely interesting for them to know that there are a lot of beautiful places to see. Also, local traditions, as this was prepared by the students, and they did a great job. Then, as I said,

	<p>the vulgarism, because it was strange...the energy, the reaction. There was a group saying: "Ah, I finally understand what is going on!". A second group was surprised: "Oh, you are a teacher, why do you want me to know such words?". Finally a small group, mostly girls that didn't want to look at it, probably it was also because of cultural differences. So, it was interesting, also in terms of different reactions...you see? As for the topic that was less interesting, from my point of view, it was the animals, but our students did it and somehow wanted it. It was important for them so, why not?</p>
F.M.	<p>Definitely. And would you add any other topic that is not included at the moment?</p>
Interviewee	<p>Honestly, I don't know. I think that we have to ask the students. Yes, because I have that experience that you as a teacher can think that something is important or something is not important. But when you ask the students, it can be completely the opposite. So, by doing something like this next time I would suggest asking people first. Maybe a long catalogue of different things and let people vote. What is the most important for them? Because for me, for example, the topic of soups is not that very much important, but for my students it was very important. It's all about the point of view, I guess.</p>
F.M.	<p>Thank you, I just wanted to mention that this is something that other colleagues mentioned in previous interviews.</p>
Interviewee	<p>Really? Well, it's good to have students' opinions on that because in the end what we expect as teachers is probably somehow different... the needs of Erasmus students or international students are pretty different from our needs. Yes, so it's it would be better to ask them.</p>
F.M.	<p>Thank you, and would you recommend any change or improvement to the APP to the EULALIA team?</p>
Interviewee	<p>Yeah, probably a couple of technical things. I would like Google not to take away our vulgarisms, but you know, it's beyond our possibility, so I understand. And then I would like to change the fact that now you cannot jump around the APP, so you know when they start to talk. Now you cannot go fast forward and sometimes when the APP is still not very stable it will throw you out and then you have to listen to everything all over again. I would definitely make the process of using the APP more agile. What I mean is that you can jump from one to the other and now it's like a line and you have to listen it from the beginning till the end. So that is what is disturbing me a little.</p>
F.M.	<p>Thank you, that was my last question. Would you like to add anything? Or ask anything?</p>
Interviewee	<p>Not really, I can say that EULALIA is a really nice name!</p>
F.M.	<p>Well, then, I want to thank you for your time, it was really nice talking to you. Bye-bye.</p>

Interviewee	Bye!
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#### Transcript - Interview n. 4

F.M.	Thank you for your time! As you know, I will start with a few broad questions. Can you tell me in which institution are you currently working?
Interviewee	Yes, we are working at [university name] in [country].
F.M.	Thank you. And can you tell me what was the language entry-level of your students working with the EULALIA APP?
Interviewee	It was B1.
F.M.	And roughly, how many students did you have in your class?
Interviewee	Well, in the case of [language], we have 18 students, but we haven't got any student in the [language] group, because of the pandemic situation. And therefore, we have been working only with [students' group].
F.M.	OK. Did o you participate in the ME workshop for teachers and in the one for the students?
Interviewee	We participated last year in the first ME for teachers. And then we had a second ME which is not included in the project, but we held a second event like an advanced workshop for teachers and participated in it.
F.M.	And did you also hold a workshop for the students?
Interviewee	The workshop for students we did last year was for a different group of students, obviously, because that was held before the summer. So, for [colleague's name] group of students, we have used the same materials that we created for that workshop. We have shared it with them. We have arranged like a video explanation about the project, so it was roughly like a workshop.
F.M.	Can you tell me why did you decide to start working with the EULALIA APP?
Interviewee	Well, we decided to put into practise the EULALIA APP in our class because it's a good idea to test it in a real language course.
F.M.	Indeed, and can you tell me a bit more of your experience with the APP?
Interviewee	[Colleague's name] used it as a class activity. The problem with our course is that it's very limited in time. We have a very strict programme, and our students have a course for three months. Then, at the end, they will have to pass an official exam for the B1 certification. So, the problem to use EULALIA in the course was how to do it without interfering with all the content that has to be dealt with. So, the colleague used one of the OER's that were already available on the APP as a class activity. It was used as a hearing comprehension activity in one of the sessions and also, the students were invited to co-create. So, to work for the production of writing and speaking activity. Now they are in the process of co-creation. Students will use instructions, they will use food, vocabulary and so on. They will create a recipe in the end.

F.M.	Thank you. My next question refers to pedagogy and didactics. Did you notice any change at all in your practices? Would you say that teaching with the EULALIA APP leads to different learning outcomes?
Interviewee	Well, what we have seen is that the OERs that have already been created and are available are a bit limited. They can be used as a comprehension activity. You can learn a bit of culture or vocabulary, but they are very limited. They are also not very easy to use. I don't know if you have tried to use one, but the usability is quite limited and the interaction with the user is very limited as well. So, we wouldn't say it has a big impact on the learning of the students. But the more interesting part of EULALIA for us is the co-creation, the creation of a new app, because that's where students negotiate. They have to speak to each other. They have to interact. They have to write a small piece of text, they have to record it. They have to find information about the topic, take pictures so it's more creative. Of course, you could do all this without an app. But the fact that at the end of the process there will be an app online with their own work is really satisfactory and it's motivating. So, I would say that this is the most interesting part.
F.M.	Thank you. And then in terms of teaching strategies, did you notice any particular difference?
Interviewee	The more important point that our colleague found in the practise is the gamification, because it could be a good point to put in practice with students.
F.M.	Thank you. And this is exactly what I wanted to ask you next. Do you think that using this APP changed your colleague's attitude towards gamification at all?
Interviewee	So, the use of technology was something she was already used, so it didn't change much. Our colleague said that the great advantage is that it was useful to break the ice, and to stop and better explain some points of the grammar. She also wanted to point out that this course is held online, so students couldn't to play with full EULALIA activities and they couldn't touch it. They could only use the virtual app. They are online. So maybe they haven't explored the full possibilities.
F.M.	I think this is a good point. So basically, they had to use this map, isn't it?
Interviewee	Yeah, just online. And some of them couldn't also download it because it's not available for iPhones.
F.M.	Yes, thank you. Actually, this is something that came up in another interview and, as you said, something that definitely need to be taken into consideration. Moving to my next question: Have you changed your evaluation or assessment strategy?
Interviewee	Not really. I think because the final assessment is an official examination, which is the same for all students all over the country. So, the final assessment cannot be changed.
F.M.	And do you think that working with the EULALIA APP was somehow beneficial for your colleague as a teacher?
Interviewee	Yes, I believe so. To introduce some grammar points, for example. The idea is that the teacher could use some kind of help out of the usual way to communicate the programme to the students. And she said that this experience was very useful.
F.M.	So basically, if I'm not wrong, the idea is that it was more beneficial for students than as a teacher. Is this correct?
Interviewee	Yes, indeed.
F.M.	Did you notice any change in the motivation of your students?

Interviewee	Well, yes. But the students are more motivated with the co-creation experience than the use of the APP only. For the students who participated in the co-creation activities, it was very interesting.
F.M.	And did you notice any change in the results achieved by your students, compared to the traditional way of learning?
Interviewee	Well, it's difficult to say because we have only used it as class activity in one session. They used one OER that was already made and now they are co-creating. It will be helpful for them, obviously. But it's just a short-term use and we cannot really say if and how this will make a big difference. The fact that they will see a final product it's definitely motivating, but it's difficult to say if this will increase their ability in the long term.
F.M.	Thank you. Would your colleague consider working with the EULALIA APP in the future and would she recommend it to the colleagues?
Interviewee	If we can manage to have a collection of OERs that are interesting enough, probably yes, but it takes time for us to create new OERs. So, if we can continue producing more OERs, and the topics available are different and interesting, we think this could be something extra we can offer to our students. They could access it while they are at home, for example, to keep working on different topics or aspects.
F.M.	Perfect. Which were the most and the least interesting OER, for your colleague?
Interviewee	I think the colleague found the one about [town] interesting. That's the one she used in her class. It's a map in this case, and it's a visit in the town. She chose it because the theme is interesting for them because it's a city they know and also because of the structure, the language used in this OER which was reachable for them. There was a similar one for another town, but that was more complicated because it included a historical description of the site.
F.M.	Is there any other topic that you think your colleague would add in the future, that is not yet included?
Interviewee	Yeah, there are many topics that we could include. As I said previously, we only have a very limited list of OERs now. So, if we can increase them, for sure.
F.M.	Thank you. Do you have any specific recommendation on how to improve the APP?
Interviewee	From a teaching point of view, maybe it would have been easier if the technical team had offered us different templates for different type of structures, not just a map. Because we are using this structure to work on recipes now, for example, or to talk about different parts of the house. But we have to devote an important amount of time to fill in the form, and the form is available in English only. So, we cannot ask our students to fill in the form directly because some of them may not speak English so well, and that's not the purpose of our courses. It would have been better if we had it translated and simplified... a more user-friendly template, or system, to create new OERs. Also, we think that it's important to take into consideration the bilingual aspect, instead of including the material in one folder only, which can be confusing for the user.
F.M.	Definitely. Anything else you would like to add or comment?
Interviewee	This is just suggestions. The usability of the APP it's a bit limited and we would find it interesting if we could, for example, stop when you are listening to some information. if you could stop the recording, move forward, backwards, or whatever you may need. Because we were thinking about students that may have some learning difficulties and these things are not available yet.
F.M.	Other partners pointed out the same thing, so thanks for this.

	Well, thank you for taking the time for this interview. Unless you have anything else to add, this was really it.
Interviewee	No, thank you. I hope this was helpful for your work. Bye!
F.M.	Bye!

### Transcript - Interview n. 5

F.M.	Thank you for your time! As you know, I will start with a few broad questions. Can you tell me in which institution are you currently working?
Interviewee	Yes, we are working at [university name] in [country] and we are teaching [language].
F.M.	Thank you. And can you tell me what was the language entry-level of your students working with the EULALIA APP?
Interviewee	It's A1/A2, so elementary level and B1/B2, intermediate level.
F.M.	And roughly, how many students did you have in your class?
Interviewee	Well, 70 students for the elementary level and 30 students for the intermediate one.
F.M.	OK, thank you. Did o you participate in the ME workshop for teachers and in the one for the students?
Interviewee	Yes, the meetings with the Eulalia project staff
F.M.	And did you also hold a workshop for the students?
Interviewee	Yes 2 actually: "the Eulalia project" workshop, promoted by the [name of the University] in December 2021 and as keynote speaker in the "workshop for students [country]" at [name of the University], in April 2021. In both workshops, students themselves have created language learning scenarios under the guidance of their L2 teachers.
F.M.	Perfect. And can you tell me why you decided to start working with the EULALIA APP?
Interviewee	To introduce to our foreign students some key aspects of [country and regional] culture in order to gain lexical/socio-cultural competence, promote inclusion and foster intercultural understanding, enhance language learning by carrying out tasks related to everyday language use, and motivate students to participate in context-guided new experiences to continuously stimulate metalinguistic awareness of morphological structures of [language].
F.M.	Can you tell me a bit more of your experience with the APP?
Interviewee	Yes, sure. Working with Eulalia has been very constructive and meaningful, as the project is meant to support learning/teaching processes with tangible interfaces accessible to all students, including those with sensory or multisensory disabilities. This is possible with the use of the Tangible User Interfaces (TUI) paradigm, which is the setting that allows students to interact with papers, maps, blocks, and everyday objects.

F.M.	Thank you. My next question refers to pedagogy and didactics. Did you notice any change at all in your practices?
Interviewee	Well, after having used the Eulalia APP I began to systematically adopt a teaching approach based on playing and communication so as to bring learners closer to a conscious use of the language. EULALIA allows students to achieve their language goals by developing communicative skills in a fun and interactive way. As for the didactics, using EULALIA in teaching practice supports teachers in designing and implementing linguistic-cultural paths that provide for cooperative learning, such as group work and tutoring, and thus encouraging mutual responsibility. EULALIA inspires the construction of a motivating and inclusive learning environment in order to actively involve students. The use of inclusive and multisensory methodologies based on modern technologies has allowed students to explore the rich heritage of [city name] and learn [language] through pre-established paths into local historical and artistic sites. The EULALIA experimentation is intended to give foreign students the opportunity to develop language skills under the supervision of Italian L2 teachers, with a focus on the cultural aspects and characteristics of the host city.
F.M.	Thank you. And then in terms of teaching methodology, did you notice any difference?
Interviewee	I have. The selection of tasks, strategies, materials, tools and evaluation criteria is now more appropriate to the context and the linguistic and emotional needs of foreign students.
F.M.	Thank you. And do you think that using this APP changed your attitude towards gamification?
Interviewee	The use of digital tools and active methodologies, inspired by the learning by doing principle, has enhanced the learning of the language while respecting cultural and linguistic diversity. We believe it is a playful and cooperative learning model, capable of stimulating linguistic, emotional and social intelligence at the same time.
F.M.	Moving to my next question: How was the co-creation in learning and teaching?
Interviewee	Thanks to EULALIA, teaching becomes an educational game, so experiential learning by trial and error. The co-created paths are based on a communicative approach: words are thought of as concentric waves and the nodes of the scenarios are imagined as video games.
F.M.	Have you changed your evaluation and assessment strategies when using EULALIA?
Interviewee	Our focus has shifted towards educational feedback in order to provide students, step by step, with positive reinforcements that are useful for improving language learning. The evaluation methodology has therefore considered commitment and active participation in the project.
F.M.	And do you think that working with the EULALIA APP was somehow beneficial for you as a teacher?
Interviewee	The first benefit certainly concerns the APP accessibility. Knowing and identifying the special educational needs of individual learners is not always possible when you teach [language] to foreigner, also at academic level. You should therefore think in the broadest and most inclusive terms possible so that everyone's needs can be met. In my opinion, the EULALIA APP does not



	<p>present barriers in using it and is also accessible for students with sensory disabilities. The vocal text reading tools make the APP easy to use by all students. The adoption of a personalized approach in the use of the APP also gives students with specific learning disorders, and primarily dyslexia, the opportunity to enjoy the vocal text reading.</p> <p>Secondly, working with Eulalia has allowed the teachers to experience different methods for welcoming foreign students coming from all over the world into [university name] academic community.</p>
F.M.	And do you find working with EULALIA beneficial for your students?
Interviewee	<p>I do, since the methodology proposed by EULALIA improves the language learning process and best meets to the students' varied needs. We learn best through a playful and emotionally stimulating approach.</p> <p>The teaching methodology of the [language] and culture promoted by EULALIA welcomes innovative practices made possible by information and multimedia technologies. This approach makes it possible in particular to encourage the inclusion of students with special linguistic needs, such as students with visual impairments or language disorders. Each course is always accompanied by an audio file to strengthen the role of the auditory canal in teaching the language. In doing so, we have fostered an open and inclusive learning dimension, respectful of linguistic and cultural differences.</p>
F.M.	Did you notice any change in the motivation of your students?
Interviewee	<p>During the language and culture courses organised by the language centre I managed to collect feedback from my students, who underlined how EULALIA gave them the opportunity to study with greater motivation and fun. They even thanked me at the end of the course!</p>
F.M.	And did you notice any change in the results achieved by your students, compared to the traditional way of learning?
Interviewee	<p>Strategies used in the EULALIA project with the purpose of development of communication skills have stimulated creativity and critical thinking in students. The cooperative dimension of the project played a fundamental role in fostering positive interdependence and empathy among the students. The groups, always quite heterogeneous with regard to origin and entry language proficiency levels, proved to be very willing and inclined to reach common goals. These objectives were achieved thanks to a personalization of the learning experience that EULALIA implemented through touchable technology and game-based learning.</p>
F.M.	Thank you. Will you continue working with the EULALIA APP in the future and would you recommend it to your colleagues?
Interviewee	<p>I certainly would, as it gives the opportunity to experience a foreign language and better understand the culture which it is linked to by the use of innovative learning methodologies.</p>
F.M.	Thank you. Which were the most and the least interesting OER for you?
Interviewee	<p>Beginners usually find useful the gastronomic tour and the places around the university that welcome foreign students on arrival, while those who possess an elementary knowledge of [language] are particularly interested in the traditions of the city, such as the topic about mysteries of [city]. Courses concerning cinema and literature certainly arouse greater interest in students with an advanced level of competence.</p>

F.M.	Thank you. And is there any other topic that you would like to add in the future?
Interviewee	Well, perhaps the following scenarios could be added: city libraries, subway lines and stations, the crib art, the islands of [name], historical professions, art sites, such as museums, theatres, palaces... nightlife, places of interest for a foreign student within the social context of the host city, also considering the current epidemiological situation... university offices, pharmacy, supermarket, post office, vaccination HUB.
F.M.	Thank you. Do you have any specific recommendation on how to improve the APP?
Interviewee	In my opinion, the interaction between the narrator and the foreign student using the APP should include real-time user feedback for monitoring purposes. Also, the APP should be available for Android users and IOS.
F.M.	Definitely. Anything else you would like to add or comment?
Interviewee	No, thank you. I think that's all.
F.M.	Well, thank you for your time then and I hope to see you soon. Bye!
Interviewee	Me too, bye-bye!

## Appendix 4

[Rubric for eLearning Tool Evaluation](#), (Anstey and Watson 2018).

### Expert 1 – Evaluation results

#### Rubric for eLearning Tool Evaluation

This rubric has been designed for instructors and staff as a formative tool to evaluate eLearning tools in higher education. eLearning tools are defined as any digital technology, mediated through the use of a computing device, deliberately selected to support student learning. The rubric supports a multi-dimensional evaluation of functional, technical, and pedagogical aspects of eLearning Tools.

#### Instructions

Not all rubric criteria are necessarily applicable to all eLearning tools and those using the rubric are encouraged to assess irrelevant criterion as "not applicable". The rubric does not identify a discrete threshold that an eLearning tool needs to cross before a tool should be used; the rubric is a formative tool intended to offer insight into the relative strengths and weaknesses of an eLearning Tool, as evaluated against a set of criteria.

Category	Criteria	Works Well	Minor Concerns	Serious Concerns	Not applicable
Functionality	Scale	The tool can be scaled to accommodate any size class with the flexibility to create smaller sub-groups or communities of practice	The tool can scaled to accommodate any size class but lacks flexibility to create smaller sub-groups or communities of practice	The tool is restrictive to a limited number of users and cannot be scaled	X
	Ease of Use	The tool has a user-friendly interface and it is easy for instructors and students to become skillful with it in a personalized and intuitive manner.	The tool has an interface that may be confusing to either instructor or learner; there is limited opportunity for personalization.	The interface is not user-friendly for either the instructor or learner; it is cumbersome, unintuitive, rigid, and inflexible.	
	Tech Support / Help Availability	Campus-based technical support and /or help documentation is readily available and aids users in troubleshooting tasks or solving problems experienced; or, the tool provider offers a robust support platform	Technical support and help documentation is available but limited, incomplete, or not user-friendly	Technological support and help documentation is not available	X

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	Hypermediaity	The tool allows users to communicate through different channels (audio, visual, textual) and allows for non-sequential, flexible/adaptive engagement with material	The tool allows users to communicate through different channels (audio, visual, textual) but is limited in its ability to provide non-sequential, flexible/adaptive engagement with material	The tool is restrictive in terms of the communication channels employed (audio, visual, textual) and presents information sequentially in a rigid, inflexible format	
Accessibility	Accessibility standards	The tool meets accessibility guidelines (e.g. local accessibility legislation and/or W3C WCAG 2.0 standards)	The tool has some limited capacity to meet accessibility guidelines	The tool fails meet accessibility guidelines or no information of compliance has been made available for the tool	
	User-focused participation	The tool is designed to address the needs of diverse users, their various literacies, and capabilities, thereby widening opportunities for participation in learning	The tool has some limited capacity to address the needs of diverse users, their various literacies, and capabilities	The tool is restrictive in meeting the diversity of needs reflective in the student body. The tool likely restricts some learners from fully participating.	
	Required Equipment	Proper use of the tool does not require equipment beyond what is typically available to instructors and students (computer with built-in speakers and microphone, internet connection, etc.)	Proper use of the tool requires specialized equipment (e.g. unique device) that likely requires purchase at a low cost	Proper use of the tool requires specialized equipment requiring moderate to significant financial investment	

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	Cost of Use	All aspects of the tool can be used free of charge.	Limited aspects of the tool can be used for free with other elements requiring payment of a fee, membership, or subscription.	Use of the tool requires a fee, membership, or subscription. Use of the tool requires a purchase that is likely to pose a financial burden on students (exceeding \$50 for a single half term course)	
Technical	Integration/ Embedding within a Learning Management System (LMS)	The tool can be embedded (as an object via HTML code) or fully integrated (e.g. LTI-compliant tools) into an LMS while maintaining full functionality of the tool.	The tool can be embedded within an LMS, perhaps with with limited functionality, but can not be fully integrated.	The tool can only be accessed in an LMS through a hyperlink or static representations of the tool (e.g file export), rather than a functional version of the tool itself	
	Desktop / Laptop Operating Systems	Users can effectively utilize the tool with any standard, up-to-date operating system.	Users may encounter limited or altered functionality depending on the up-to-date operating system being used	Users are limited to using the tool with one specific, up-to-date operating system.	
	Browser	Users can effectively utilize the tool with any standard, up-to-date browser	Users may encounter limited or altered functionality depending on the up-to-date browser being used	Users are limited to using the tool through one specific browser	

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	Additional Downloads	Users do not need to download additional software or browser extensions.	The tool uses a browser extension or software that requires a download and / or user permission to run.	The tool requires a past or version of a browser extension or software.	
Mobile Design	Access	The tool can be accessed, either through the download of an app or via a mobile browser, regardless of the mobile operating system and device. Design of the mobile tool fully takes into consideration the constraints of a smaller-sized screen.	The tool offers an app, but only for a limited set of mobile operating systems. Tool is not accessible through a mobile browser. Design of the mobile tool constrained by the limitations of the mobile device.	Access to the tool is limited or absent on a mobile device.	
	Functionality	There is little to no functional difference between the mobile and the desktop version, regardless of the device used to access it. No difference in functionality between apps designed for different mobile operating systems.	Core features of the main tool are functional on the mobile app but advanced features are limited. Some difference in functionality between apps designed for different mobile operating systems, but has limited impact on learners' use of the tool.	The mobile app functions poorly such that core features are not reliable or non-existent. Significant difference in functionality depending on the mobile device's operating system used to access the tool.	
	Offline Access	Offers an offline mode: Core features of the tool can be accessed and utilized even when offline, maintaining functionality and content.	Offers a kind of offline mode, where the tool can be used offline but core functionality and content are affected.	The mobile platform cannot be used in any capacity offline.	

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Privacy, Data Protection, and Rights	Sign Up/ Sign In	Use of the tool does not require the creation of an external account or additional login, such that no personal user information is collected and shared.	Either instructors are the only users required to provide personal information to set up an account; or the tool has been vetted through appropriate channels to ensure strict adherence to local, institutional, or personal policies/standards for protecting the collection and use of student personal data by a third party group.	All users (instructors and learners) must provide personal information to a third party in creating an account and there is some question or concern of the adherence to local, institutional, or personal policies/standards for protecting the collection and use of such data by the third party group.	
	Data Privacy and Ownership	Users maintain ownership and copyright of their intellectual property/data; the user can keep data private and decide if / how data is to be shared	Users maintain ownership and copyright of their intellectual property/data; data is shared publicly and cannot be made private	Users forfeit ownership and copyright of data; data is shared publicly and cannot be made private, or no details provided.	
	Archiving, Saving, and Exporting Data	Users can archive, save, or import and export content or activity data in a variety of formats	There are limitations to archiving, saving, or importing/exporting content or activity data	Content and activity data cannot be archived, saved, or imported/exported	X
Social Presence	Collaboration	The tool has the capacity to support a community of learning through both asynchronous and synchronous opportunities for communication, interactivity, and transfer of meaning between users	The tool has the capacity to support a community of learning through asynchronous but not synchronous opportunities for communication, interactivity, and transfer of meaning between users	Communication, interactivity, and transfer of meaning between users is not supported or significantly limited	X

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	User Accountability	Instructors can control learner anonymity, the tool provides technical solutions for holding learners accountable for their actions	Instructors cannot control learner anonymity but the tool provides some solution for holding learners accountable for their actions	Instructors cannot control learner anonymity and there is no technical solution for holding users accountable to their actions	
	Diffusion	The tool is widely known and popular, it's likely that most learners are familiar with the tool and have basic technical competence with it	Learners' familiarity with the tool is likely mixed, some will lack basic technical competence with its functions	The tool is not well known/foreign, it is likely that learners are not familiar with the tool and lack basic technical competence with its functions	X
Teaching Presence	Facilitation	The tool has easy-to-use features that would significantly improve an instructor's ability to be present with learners via active management, monitoring, engagement, and feedback	The tool has limited functionality to effectively support an instructor's ability to be present with learners via active management, monitoring, engagement, and feedback	The tool has not been designed to support an instructor's ability to be present with learners via active management, monitoring, engagement, and feedback	
	Customization	Tool is adaptable to its environment; easily customized to suit the classroom context and targeted learning outcomes	Limited aspects of the tool can be customized to suit the classroom context and learning outcomes	The tool cannot be customized	X

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Expert review

	Learning Analytics	Instructor can monitor learners' performance on a variety of responsive measures. These measures can be accessed through a user-friendly dashboard	Instructor can monitor learners' performance on limited measures; or data is not presented in a format that is easily interpreted	The tool does not support the collection of learning analytics	
Cognitive Presence	Enhancement of Cognitive Task(s)	The tool enhances engagement in targeted cognitive task(s) that were once overly complex or inconceivable through other means	The tool enables functional improvement to engagement in the targeted cognitive task(s)	The tool acts as a direct tool substitute with no functional change to engagement in the targeted cognitive task(s)	
	Higher Order Thinking	Use of the tool easily facilitates learners to exercise higher order thinking skills (given consideration to design, facilitation, and direction from instructor)	The tool may engage learners in higher order thinking skills (given significant consideration to design, facilitation, and direction from instructor)	The tool likely does not engage learners in higher order thinking skills (despite significant consideration to design, facilitation, and direction from instructor)	
	Metacognitive Engagement	Through the tool, learners can regularly receive formative feedback on learning (i.e. they can track their performance, monitor their improvement, test their knowledge)	Opportunities for receiving formative feedback on learning are available, but infrequent or limited (i.e. poor opportunities for tracking performance, monitoring improvement, testing knowledge on a regular basis)	There are no opportunities for formative feedback on learning (i.e. lacking opportunities for tracking performance, monitoring improvement, testing knowledge on a regular basis)	

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## Expert 2 – Evaluation results

### Rubric for eLearning Tool Evaluation

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	Ease of Use	The tool has a user-friendly interface and it is easy for instructors and students to become skilled with in a personalized and intuitive manner.	The tool has an interface that may be confusing to either instructor or learner; there is limited opportunity for personalization.	The interface is not user-friendly for either the instructor or learner; it is cumbersome, unintuitive, rigid, and inflexible.	
	Tech Support / Help Availability	Campus-based technical support and/or help documentation is readily available and aids users in troubleshooting tasks or solving problems experienced; or, the tool provider offers a robust support platform	Technical support and help documentation is available but limited, incomplete, or not user-friendly	Technological support and help documentation is not available	X

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	Hypermediality	The tool allows users to communicate through different channels (audio, visual, textual) and allows for non-sequential, flexible/adaptive engagement with material	The tool allows users to communicate through different channels (audio, visual, textual) but is <del>limited</del> in its ability to provide non-sequential, flexible/adaptive engagement with material	The tool is restrictive in terms of the communication channels employed (audio, visual, textual) and presents information sequentially in a rigid, inflexible format	
Accessibility	Accessibility standards	The tool meets accessibility guidelines (e.g. local accessibility legislation and/or <del>W3C WCAG 2.0 standards</del> )	The tool has some limited capacity to meet accessibility guidelines	The tool fails meet accessibility guidelines or no information of compliance has been made available for the tool	
	User-focused participation	The tool is designed to address the needs of diverse users, their various literacies, and capabilities, thereby widening opportunities for participation in learning	The tool has some limited capacity to address the needs of diverse users, <del>their various literacies, and capabilities</del>	The tool is restrictive in meeting the diversity of needs reflective in the student body. The tool likely restricts some learners from fully participating.	
	Required Equipment	Proper use of the tool does not require equipment beyond what is typically available to instructors and students (computer with built-in speakers and microphone, internet connection, etc.)	Proper use of the tool requires specialized equipment (e.g. unique device) that likely requires purchase at a low cost	Proper use of the tool requires specialized equipment requiring moderate to significant financial investment	

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	Cost of Use	All aspects of the tool can be used free of charge.	Limited aspects of the tool can be used for free with other elements requiring payment of a fee, membership, or subscription.	Use of the tool requires a fee, membership, or subscription Use of the tool requires a purchase that is likely to pose a financial burden on students (exceeding \$50 for a single half term course)	
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	Desktop / Laptop / Operating Systems	Users can effectively utilize the tool with any standard, up-to-date operating system.	Users may encounter limited or altered functionality depending on the up-to-date operating system being used	Users are limited to using the tool with one specific, up-to-date operating system.	
	Browser	Users can effectively utilize the tool with any standard, up-to-date browser	Users may encounter limited or altered functionality depending on the up-to-date browser being used	Users are limited to using the tool through one specific browser	X

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	Additional Downloads	Users do not need to download additional software or browser extensions.	The tool uses a browser extension or software that requires a download and / or user permission to run.	The tool requires a past or version of a browser extension or software.	X
Mobile Design	Access	The tool can be accessed, either through the download of an app or via a mobile browser, regardless of the mobile operating system and device. Design of the mobile tool fully takes into consideration the constraints of a smaller-sized screen.	The tool offers an app, but only for a limited set of mobile operating systems. Tool is not accessible through a mobile browser. Design of the mobile tool constrained by the limitations of the mobile device.	Access to the tool is limited or absent on a mobile device.	
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Privacy, Data Protection, and Rights	Sign Up/ Sign In	Use of the tool does not require the creation of an external account or additional login, such that no personal user information is collected and shared.	Either instructors are the only users required to provide personal information to set up an account; or the tool has been vetted through appropriate channels to ensure strict adherence to local, institutional, or personal policies/standards for protecting the collection and use of student personal data by a third party group.	All users (instructors and learners) must provide personal information to a third party in creating an account and there is some question or concern of the adherence to local, institutional, or personal policies/standards for protecting the collection and use of such data by the third party group.	
	Data Privacy and Ownership	Users maintain ownership and copyright of their intellectual property/data, and user can keep data private and decide if / how data is to be shared.	Users maintain ownership and copyright of their intellectual property/data; data is shared publicly and cannot be made private	Users forfeit ownership and copyright of data; data is shared publicly and cannot be made private, or no details provided.	
	Archiving, Saving, and Exporting Data	Users can archive, save, or import and export content or activity data in a variety of formats	There are limitations to archiving, saving, or importing/exporting content or activity data	Content and activity data cannot be archived, saved, or imported/exported	X
Social Presence	Collaboration	The tool has the capacity to support a community of learning through both asynchronous and synchronous opportunities for communication, interactivity, and transfer of meaning between users	The tool has the capacity to support a community of learning through asynchronous but not synchronous opportunities for communication, interactivity, and transfer of meaning between users	Communication, interactivity, and transfer of meaning between users is not supported or significantly limited	X

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	User Accountability	Instructors can control learner anonymity, the tool provides technical solutions for holding learners accountable for their actions	Instructors cannot control learner anonymity but the tool provides some solution for holding learners accountable for their actions	Instructors cannot control learner anonymity and there is no technical solution for holding users accountable for their actions	
	Diffusion	The tool is widely known and popular, it's likely that most learners are familiar with the tool and have basic technical competence with it	Learners' familiarity with the tool is likely mixed, some will lack basic technical competence with its functions	The tool is not well known/foreign, it is likely that learners are not familiar with the tool and lack basic technical competence with its functions	X
Teaching Presence	Facilitation	The tool has easy-to-use features that would significantly improve an instructor's ability to be present with learners via active management, monitoring, engagement, and feedback	The tool has limited functionality to effectively support an instructor's ability to be present with learners via active management, monitoring, engagement, and feedback	The tool has not been designed to support an instructor's ability to be present with learners via active management, monitoring, engagement, and feedback	
	Customization	Tool is adaptable to its environment; easily customized to suit the classroom context and targeted learning outcomes	Limited aspects of the tool can be customized to suit the classroom context and learning outcomes	The tool cannot be customized	X

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	Learning Analytics	Instructor can monitor learners' performance on a variety of responsive measures. These measures can be accessed through a user-friendly dashboard	Instructor can monitor learners' performance on limited measures; or data is not presented in a format that is easily interpreted	The tool does not support the collection of learning analytics	
Cognitive Presence	Enhancement of Cognitive Task(s)	The tool enhances engagement in targeted cognitive task(s) that were once overly complex or inconceivable through other means	The tool enables functional improvement to engagement in the targeted cognitive task(s)	The tool acts as a direct tool substitute with no functional change to engagement in the targeted cognitive task(s)	
	Higher Order Thinking	Use of the tool easily facilitates learners to exercise higher order thinking skills (given consideration to design, facilitation, and direction from instructor)	The tool may engage learners in higher order thinking skills (given significant consideration to design, facilitation, and direction from instructor)	The tool likely does not engage learners in higher order thinking skills (despite significant consideration to design, facilitation, and direction from instructor)	
	Metacognitive Engagement	Through the tool, learners can regularly receive formative feedback on learning (i.e. they can track their performance, monitor their improvement, test their knowledge)	Opportunities for receiving formative feedback on learning are available, but infrequent or limited (i.e. poor opportunities for tracking performance, monitoring improvement, testing knowledge on a regular basis)	There are no opportunities for formative feedback on learning (i.e. lacking opportunities for tracking performance, monitoring improvement, testing knowledge on a regular basis)	

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## Appendix 5

### System Usability Scale

(Included in the EULALIA group post-survey)

For each of the following statements, students are asked to mark one box that best describes their reaction to the EULALIA APP.

	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neither agree nor disagree</b>	<b>Agree</b>	<b>Strongly agree</b>
1. I think that I would like to use this APP again					
2. I found this APP unnecessarily complex					
3. I thought this APP was easy to use					
4. I think that I would need assistance to be able to use this APP					
5. I found the various functions in this APP were well integrated					
6. I thought there was too much inconsistency in this APP					
7. I would imagine that most people would learn to use this APP very quickly					
8. I found this APP very cumbersome/ awkward to use					

9. I felt very confident using this APP					
10. I needed to learn a lot of things before I could get going with this APP					

## References

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