



Get the Most Out of Erasmus+ Good Practices

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Abstract. This paper describes the evolution of the doctoral work related to the “Methodological guide for the successful use of digital technologies in education: Improving learning through European educational projects”. The research focuses on the analysis of a group of European projects of the Erasmus+ Program considered as good practice or successful experience and related in some way to eLearning or educational technologies. The current publication explains how the research has been carried out so far, after having done the sampling, project selection, analysis, a questionnaire, and interviews, and is currently about to implement two differentiated focus groups. An analysis of the most outstanding results obtained in the different phases is also carried out, emphasizing the 22 interviews carried out on specific projects that are still useful today. The most outstanding result of these interviews is the design of projects to meet real needs, which are also innovative and transferable to other institutions or educational fields.

Keywords: Education · Technology · European projects · Interactive learning environments · Electronic learning

1 Context and Motivation that Drives the Dissertation Research

The research presented here seeks to find out what makes certain projects developed within the framework of Erasmus+ worthy of the label of good practice and/or success story. Likewise, it aims to find the relevant indicators and patterns that have helped not only to make projects successful, but also to continue to be useful after the funding period. This is what is called in the field of Erasmus+ Programme [1] that the projects are sustainable over time and one of the motivations of the programme. The programme promotes projects with real impact in the educational field in a way that they could help to improve our educational system in the short, medium, and long term.

The reason for choosing Erasmus+ for this investigation is based on the fact that educational projects at multiple educational levels are carried out within its framework, in which students and teachers are usually involved. Knowing projects that have been developed satisfactorily in this field is a great help to be able to guide teachers when

designing institutional projects. The characteristics that define the good practices of Erasmus+ projects are undoubtedly very useful to consider when designing educational projects.

In these moments in which we live in such changing world due to continuous technological development, social changes, pandemics, wars, energy crises, teachers more than ever need to be well trained and be able to carry out an efficient professional development and learning plan throughout life [2]. Therefore, providing guides and tools to help them in this process is of great importance and the cornerstone of the work described in this article.

For this reason, the analysis of projects compiled on the Erasmus+ results platform (E+PRP - <https://bit.ly/3sZMYXt>) is a great tool for collecting useful indicators. This, together with additional information provided by the project coordinators, serves as the basis for the study presented here. Specifically, for this research, in order to focus the study on a specific group of projects, it has started from a group of projects with some relation to electronic learning [3, 4].

The following sections include the state of the art, the starting hypothesis for the research, the objectives, methods used, results achieved to date, the state of the dissertation, current and expected contributions and conclusions.

2 State of the Art

An effective education system requires supporting the continuous training of teachers from the beginning to the end of their professional careers to achieve prepared teachers who contribute to high-quality teaching (Teachers Professional Learning Study (TPL): <https://bit.ly/3MX7fVz>). Teacher empowerment is achieved through initial teacher training, induction, and ongoing professional development, giving rise to a robust and successful educational system (OECD Initial Teacher Preparation study -ITP-: <https://bit.ly/3wWQSTw>).

The Incheon Declaration for Education 2030 [5] has designed a new framework for education seeking to involve member states in ensuring the empowerment of teachers, with adequate contracts, good training and professional qualification, motivated and supported by the administration.

The objective of this Declaration is to achieve an education that allows transforming lives, with a key role in the development and achievement of the proposed SDGs. Enact a common educational agenda that is holistic, challenging, and helps ensure that no one is left behind. In this, SDG 4 is focus on achieving inclusiveness and equity in education, improving quality and promoting continuous learning for all [5]. Moreover, UNESCO promotes lifelong learning, including e-learning as one of the means to achieve it [6].

On the other hand, the OECD publications give information related to the school equipment, teacher training, digital competence of teachers and students, as well as school resources with data collected in the studies: Program for the Evaluation International Student Study (PISA) [7] and the Teaching and Learning International Survey (TALIS) [8, 9], among others. In both studies, especially the latter, the importance of teaching collaboration and how the practices of observation and exchange of good practices can help in the process of improving teaching practice are stressed.

The European Union (EU) also promotes the implementation of European Educational Projects to improve teacher training through observation practices and exchange of good practices between educational institutions. In the case of Erasmus+, projects are financed in which the participation of the teaching staff and students of the centers is strategic [1].

The Erasmus+ Project Results Platform (E+PRP - <https://bit.ly/3sZMYXt>) brings together all the projects financed by the Erasmus+ Program and its predecessor programs in the fields of education, youth, and sport since 2007. These projects are labelled according to their characteristics, among which those of good practice or success stories stand out. Its analysis allows us to find keys that can inspire teachers and educational institutions for continuous improvement in teaching. Therefore, the research presented in this publication uses this resource of great value to help collect the main aspects that can serve as a tool and learning in teaching [3, 4]. Within the framework of the group in which this research is carried out, experiences of good educational practices have also been explored as a tool for improving teaching-learning processes [10, 11].

In summary, international, and national organizations are investing great efforts to meet the need to continue improving education through institutional educational projects.

3 Hypothesis/Thesis and/or Problem Statement

This research starts from the assumption that knowledge about the implementation of successful projects with a real impact on educational institutions are very relevant as guidance to achieve improvement in learning, curricular diversification, leading to an evident impact on the teaching-learning process. It is mainly focus on projects in which digital technologies or eLearning have been used.

For this reason, it is sought, through the analysis of educational projects considered as good practices or success stories in the field of study, to establish a methodology for the design and development of educational projects in digital technologies in education and/or eLearning [3, 4], to improve teachers' technology acceptance and avoiding the existing barriers [12].

The Erasmus+ Project Results Platform is used as the main database with real projects that have been carried out and for which there is useful public information.

4 Research Objectives/Goals

The research is in its third year with an advanced analysis of projects based on an initial sample of projects located on the E+PRP platform that were classified as good practice or success story and that had some connection with the tokens "eLearning" or "e-Learning". With this initial sample, a selection was made of those projects that met some basic requirements and those projects were contacted to fill out a questionnaire [3, 4].

In this third year, interviews have been carried out with 22 projects among those who completed the questionnaire and demonstrated that they had carried out educational projects with products that were still being used and that had involved teachers and/or students [4].

Likewise, based on the projects that have been interviewed, two focus groups will be held with a small group of high-impact projects to study to what extent they can get the most out of these experiences, as well as of digital technologies for future educational projects, knowing more closely what are the success factors that the analyzed projects have had.

The goal is to provide tools that allow designing projects with impact, that are sustainable over time and achieve teaching-learning processes using the maximum potential of technology.

5 Your Research Approach and Methods, Including Relevant Rationale

The methodology used combines quantitative and qualitative analysis, taking advantage of the strengths of each type to answer the research questions. Since it is about getting the most out of analyzing developed projects, the guide for systematic reviews of research projects has been used as a basis [13, 14]. This method allows comparisons of completed projects by observing how technological ecosystems evolve in the study area.

The research process has been carried out in four phases: study definition, sample design, project selection and analysis. Currently, the research is in the analysis phase, in which the results obtained are reviewed in relation to the common factors that have influenced the success of different Erasmus+ educational projects linked to “e-Learning” or “eLearning” tokens: its implementation, results, impact and sustainability after the funding period. These results will help detect clear indicators to achieve good quality in future projects. The development of the analysis has been structured in four stages:

- First, the review of the projects in the E+PRP platform, obtaining relevant information on the projects, the results achieved, the institutions involved, etc.
- Second, a questionnaire has been implemented and sent to the project coordinators to gather information of interest related to their possible success and the ICTs used [3].
- Third, an interview phase has been carried out at the time of writing this article, only with those projects with sustainable results over time and with teachers or students involved [15].
- Fourth, two focus groups will be held with a final selection of projects with a real impact and sustainable over time.

The next two sections explore interviews and focus groups.

5.1 Interview

One of the most common techniques of qualitative research is the interview with a specific strategy to collect the information of interest for the research. This requires a good design considering key aspects for the objectives of the work and the type of inquiry selected. The type of interview depends on the objectives projected in the study, and for the case that applies to us, the semi-structured interview modality has been considered, in which a common script is used for all the interviewees, although with freedom so

that they can express themselves freely. Around the axes of work, without forcing the questions to go in order [15].

In this case, it was sought to create a friendly and open environment, giving project coordinators the opportunity to express themselves on the aspects that were of interest in relation to the success they have achieved. Table 1 indicates the three requirements and areas of interest.

Table 1. Requirements or areas of interest.

Requirement-area	Description
First requirement	To know to what extent and in what way teachers and students were involved
Second requirement	The usefulness of the results achieved in the project and its materials beyond its completion
Third requirement	How these were useful in the pandemic

In the development of the script, the aim was to discover specific aspects related to the areas already covered by the questionnaire but focused on these three indicated areas. The methodology used has been:

- First, questions have been considered to collect information on the three proposed topics, in addition to obtaining an assessment of the validity of the previous questionnaire [3, 15].
- Second, a mapping has been carried out with the sections of the questionnaire [15].
- Third, the validity has been verified with the two initial interviewees [15].
- Fourth, the interviews have been organized following the phases shown in Fig. 1.

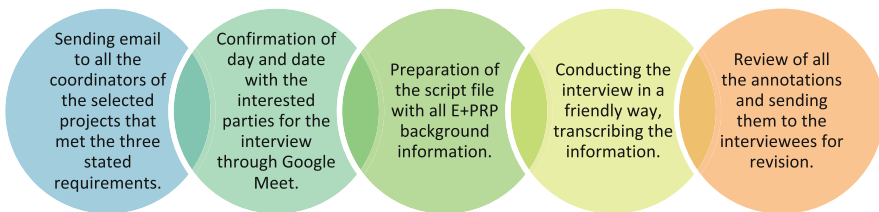


Fig. 1. Phases for the interview.

Once all the interviews have been completed, a detailed analysis of all of them has been carried out using the information collected through categorization to obtain quantitative data on the most significant qualitative aspects.

5.2 Focus Groups

At the time of writing this article, the most prominent projects among those interviewed have already been contacted to organize the focus groups. It has been decided to divide into two groups: one from school education, which is from the sector with the most Erasmus+ projects, and another from the rest of the educational fields (Higher Education, Vocational Education and Training and Adults). The development of these focus groups is still in the design phase.

6 Results to Date and Their Validity

The steps undertaken so far include the mapping of Erasmus+ projects based on specific criteria: linked to eLearning/e-Learning tokens (almost 10,000 projects), projects catalogued as good practices or success stories (nearly 1,200 projects), the key actions KA1 and KA2 in which schools are involved.

Since the interest of the research focuses on projects in which educational centers participate, as a strategic element to analyze the improvement in the learning process, those projects that did not involve educational centers were excluded as well as those without an email address or a phone number available.

Several analyzes have been carried out as a result of which the design of the interview phase began [15]. This was designed to be carried out with the projects that indicated in the survey that they had had the participation of teachers and students, the results were useful during the pandemic, and they had used and generated valuable digital resources for the community and that are still useful today. The final number of projects involved until now are reflected in the Fig. 2.



Fig. 2. Number of projects involved until now.

Of those that have passed the interview phase, a total of 15 projects have been selected to carry out two focus groups, one with 8 projects from the school education sector and another one with 7 projects from the rest of the sectors.

Regarding the results among the analyzed projects in the interview phase, it stands out above all that they responded to the real needs of the students and/or teachers, which were related to innovative topics with great incidence and effective use in the institutions involved. In addition, they created results that can be adapted or transferred to interested parties or colleagues. Moreover, it highlights that at present the learning outcomes and materials developed are still useful and have even been adapted and integrated into the teaching processes, in some cases they are part of the study plans or subsequent work of the students. Coordination between the partners is also relevant, maintaining their relationship and carrying out successive projects, and there are even examples in which they have created networks.

As regards to the use of ICTs, they were a constant in all the projects that used them as a complement to facilitate teaching processes, as well as communication, although it was not the main objective of most of the projects interviewed, but rather the means to achieve their goals.

7 Dissertation Status, Current and Expected Contributions

As it has been explained, currently, the analysis of the information collected in the interviews with the coordinators of 22 successful projects is being carried out and two focus groups will be held shortly with the 15 most representative projects to obtain indicators of help and inspiration for future research or projects.

This doctoral program is being developed within the framework of the Education in the Knowledge Society PhD. It is a program at the University of Salamanca (Spain) [16–18] with a platform that serves as the main tool to support communications and visibility of its progress. In addition, this work is being implemented within the GRIAL Group of the University of Salamanca [19], so all the results will be openly accessible [20].

At the time of writing this publication, a total of seven conference papers, three book chapters and one journal article have been published, and another three conference papers are in the process of being submitted and accepted, including this one: X International Conference on Ecosystem Technology for the Empowerment of Multiculturality (TEEM'22) and XII International Congress of Virtual Campus (JICV'22).

8 Conclusions

The main objective of this article is to present a research work aimed at obtaining effective indicators in the design of projects that are of quality and useful for teachers. It focuses especially on projects that include aspects related to electronic learning with an impact in the classroom.

The main objective is to be able to design a methodology for teachers using educational projects collected in the Erasmus+ Project Results Platform. This platform gives us the opportunity to search for and analyze educational projects, with their results, and select those that have been labeled as good practices or success stories. The methodology specified in the guide for a systematic review of research projects [13] is suitable for the analyzing the projects.

Presently, the research work process is in the phase of analysis and collection of additional information. The first step for this investigation consisted of analyzing and gathering the data available on the E+PRP platform taking into account those Erasmus+ educational projects considered as good practice and related to ICT and/or eLearning, only including key actions 1 and 2 projects with educational centers involved. The second step of the work was based on the design of an online questionnaire that was sent to all eligible project coordinators and it was filled in by 187 respondents. Both the data from the E+PRP platform and those collected in the survey have allowed a preliminary analysis.

Afterwards, it was carried out an interview phase with those selected institutions that have projects in which teachers and/or students were involved, the results were still useful after the funding period, throughout the pandemic and continue to be used today. The interview phase ended in May 2022, after which two focus groups have been organized to be held in early July. The data gathered in these stages will allow a joint analysis of all the main results and how they can help and serve as an example to improve teaching-learning processes in schools.

In relation to the main results to date, it is interesting to highlight the great importance of a good analysis of the needs of students and/or teachers in topics that are innovative with a real incidence and use in the institutions that participate in the projects. It is important also to implement a process of adapting and integrating the project, its results and/or products in the teaching-learning processes (educational project, curriculum, etc.). It is also highly recommended to have a good quality and stable relationship with most partners.

In summary, with all the data gathered throughout the research, it will be possible to make a good analysis, achieving indicators that allow teachers and teacher trainers to be guided in key aspects for a good design of educational projects, with a real impact, as well as an optimal use of ICT resources in the teaching-learning processes.

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