Examples of good practices in teacher training through Erasmus+ projects

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Abstract— **Teacher training plays a fundamental role in educational success, as recognized in the different studies carried out by OECD, UNESCO, the World Bank, and other prestigious institutions. The European Union and associated countries promote actions to improve the educational system and among them teacher training has an important role. One of the programs that allows the development of this type of activity is the Erasmus+ Programme. The projects of this program are the source of inspiration for the research that is being carried out in order to obtain a methodological guide for the successful use of digital technologies in education in improving learning. This article focuses on five examples of projects classified as good practice or successful experience related to teacher training as a result of the analysis that is being carried out in that research. The examples that are developed here show how to work towards a better specialization of the teaching staff and serve as inspiration to design training practices that encourage initial and continuous learning and professional improvement of teaching methods, in turn influencing the improvement of the educational system as well as teaching and learning processes. All this aimed at covering the real training needs of teachers.**

Keywords— Education, European Projects, Innovation, Teachers' training

I. INTRODUCTION

Effective teaching is at the heart of a successful educational systems. It is increasingly recognized that supporting teachers' professional learning from the beginning to the end of their career is essential to fostering high-quality teaching (Teachers' Professional Learning (TPL) Study: https://bit.ly/3MX7fVz). Preparing teachers for the classroom by promoting policies and practices that support and develop teachers as professional learners, from initial teacher education through induction and continuing professional development, can help lay the foundation for a more empowered teaching profession. solid and a quality educational system (OECD Initial Teacher Preparation -ITP-study: https://bit.ly/3wWQSTw).

For school systems, continuous professional learning is essential to complement the initial preparation of teachers, continue to improve the quality of teaching and learning, and retain effective staff over time. The growing diversity of learners and learning needs, the increasing use of information and communication technologies (ICTs), and the changing requirements of the workplace require teachers to continually update their knowledge and skills. Therefore, a lifelong learning approach to TPL that connects the initial teacher preparation (ITP) and continuing professional learning (CPL) systems is essential [1].

While the importance of effective teacher learning is widely recognized, creating efficient, equitable and sustainable TPL systems is far from trivial. However, the most recent data from the OECD Teaching and Learning International Survey (TALIS: https://bit.ly/3KOU9tc) reveals that, although a large part of teachers participate in courses and/or seminars, the Teacher engagement remains low for other types of learning that use more teacher-centered methods and collaborative formats [1]. The TALIS Teachers and School Leaders as Lifelong Learners report [2] offers a series of policy directions to help strengthen the knowledge and skills of the teaching workforce to support their professionalism. The results it presents are from the 2018 cycle that explore and examine the various dimensions of the professionalism of teachers and school leaders across education systems.

Schools seem to be recognizing the value of innovative teaching in responding to the challenges of the 21st century. A great percentage of teachers and school leaders consider that their educational centers are opened to innovative practices and with enough capacity to adopt them. On average across OECD countries in TALIS (https://bit.ly/3KOU9tc), 78% of teachers report that they and their colleagues help each other implement new ideas. However, in the case of the teachers in Europe and millennial teachers it is found that they are less likely be so open to innovation [2].

Eighty-two percent of teachers report that the training had a positive impact on their teaching practice. The participation in impactful training help teachers to have higher levels of self-efficacy and job satisfaction [2].

But some areas of professional development are still missing, according to teachers. Developing advanced ICT skills is an area where teachers say they need more training, in addition to teaching in multicultural/multilingual settings and teaching students with special needs. About half of teachers and principals also report that their participation in the professional development available to them is restricted by scheduling conflicts and lack of incentives [2].

The Incheon Declaration for Education 2030 [3] defines a new framework for education. It specifically urges member states to «ensure that teachers and educators are empowered, adequately recruited, well-trained, professionally qualified, motivated and supported within well-resourced, efficient and effectively managed systems».

The objective of that Declaration is to foster education to transform lives, recognize the important role of education for the development and in the achievement of the other proposed

SDGs. It urges to move to a unique and renewed educational agenda with special characteristics: holistic, ambitious and aspirational, leaving no one behind. All these goals are fully integrated by the SDG 4 «Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all and its corresponding targets » [3].

The European Commission, aware of these challenges, promotes funded actions so that educational projects are carried out that allow teacher training, among other purposes, in fact, in the latest edition of the Erasmus+ Programme, in addition to the actions of previous programs, it has included a specific for the promotion of the Erasmus+ Teacher Academies. This action arises on the occasion of the Council Resolution on the further development of the European Education Area of 2019 (https://bit.ly/3av4MDJ; https://bit.ly/3t27kzm). This resolution invites the Commission to «develop new means to train and support competent, motivated and highly qualified teachers, trainers, educators and school leaders, and to promote their continuing professional development and quality, research-based education » [4].

In this article, examples of good practice Erasmus+ projects are analyzed in which the training and specialization of teachers in specific fields are specifically worked on. These are projects reviewed within the framework of research aimed at obtaining a methodology on the design and implementation of successful educational projects [5]–[8]. In the first section, the methodology used for this research is reviewed, to then expose some examples of good practice in projects aimed at teacher training and conclude with the conclusions.

II. METHODOLOGY

The research, on which this article is based, is being carried out following the guidelines specified in systematic reviews of research projects [9]. This analysis of projects allows obtaining an overview of current trends and identifying deficiencies and relevant results to define new lines of investigation. It consists in four stages: study definition, screening definition, projects' selection, and analysis. Through this methodology, robust states of play can be developed [10], as for example a project to identify the most significant challenges in Higher Education according to the perception of teachers at a public university in western Mexico [11] and an analysis on the impact of the Emergency Remote Teaching and Learning [12].

Presently, the research is in the analysis phase of the results collected through an interview phase, designed to collect information on key aspects of the projects in terms of their degree of success and the ICT tools used [13]–[16].

Regarding the sample of projects with which we have worked, of the 187 institutions that successfully completed the initial questionnaire, interviews have been conducted with coordinating institutions of a total of 22 projects that met the requirements established for this stage: they attend to the real and concrete needs of students and teachers of the project educational sector, provide sustainability of the projects over time as they continue to be used and updated; and they have been very useful for the institutions that feel better prepared.

The interview phase has been carried out from December 2021 to May 2022 via videoconference with Google Meet app. It was semi-structured, with a script that allowed defining the objectives of the information that needed to be collected for the research but giving the project coordinators the possibility and flexibility to express themselves freely.

III. EXAMPLES OF GOOD PRACTICES

A. *Example 1 – KA 201 – School Educational Field: Development of skills through art and emotional intelligence, to improve learning and situations of social exclusion*
URL: https://bit.ly/3z5WXyk

This is a collaborative project for fostering inclusion using art. It involved different educational centers that have any ongoing project of inclusion through art that could be promoted and reviewed internationally thanks to the funds of the Erasmus+, as well as carrying out an exchange of good practices that would allow reviewing and improving strategies.

There were many educational centers interested in participating. Teachers, artists, minors and also families were included for the design of the project, the project was proposed with fewer challenges that were later carried out. The teaching practices were improved through art and families and minors showed great interest and encouraged their regular attendance at class.

The presence of artists is essential to work on feelings, great progress is achieved with this link. The teachers do joint work with the artists in the classroom. It is integrated into the schools planning and must be previously approved by the school faculty; hence it is part of the daily teaching.

B. *Example 2 – KA202 – Vocational Education and Training Field: Training on Safety Assessment and Management for New and Innovative Children's Products*
URL: https://bit.ly/3GtKmGV

The initial project of 2014 arises from the need to offer quality training on security measures and legislation with a global, multidisciplinary perspective, risk assessment, child behavior, regulation to apply, toys, play areas, equipment, etc., seeking to cover the demand for training to be up to date with regulations and standards in the EU. At the end of the project, online sales were also booming and from this came the next project of 2017 call to cover the entire part of the safety of children's products in online sales.

The contents are not covered by regulated professional training, but rather form part of lifelong professional learning, however, they have used the course in the case of teachers of Early Childhood Education Vocational Education and Training studies, to better understand how to best select the products to be used in Nursery Schools.

They developed a free course. For the design they considered to avoid the obsolescence of the materials, with official sources that are always update, open sources of the CE, own sources so that they are updated, they carry out studies and share information. In this way, it is covered the permanent need of all types of companies in the sector, consumer organizations, consumer authorities, regional authorities, local administration, etc.

Online sales of children's products have skyrocketed with the pandemic and this fact encouraged them to create informative posts, with products for children, which increased

a lot, to be used during lockdown. Similarly, as they created open online resources, everyone had the opportunity to go on using them and training. In that field there was enough activity to cover the educational needs of children in homes, families demanded products that would allow to help them in the best possible way.

They are fully integrated into the institutions training programs and are open courses for groups related to the subject, therefore, they continue to be valid because they have a global projection and are integrated into business training.

C. *Example 3 – KA203 - Higher Educational Field: Massive open online courses with videos for palliative clinical field and intercultural and multilingual medical communication*
URL: https://bit.ly/3N3VSeH

The project arises from the context of work in the faculties/University of medicine and pharmacy in which training on the improvement in palliative care was needed, for elderly patients or those in terminal stages of life. It was about looking for an approach, from the medical point of view, to achieve good training for the correct administration of treatments. Above all, it focused on terminal cases for people with low socioeconomic status with greater difficulty in having a quality care environment. Hence, better training of doctors and teachers was needed on these treatments and types of situations that could be found. It was not only meant for the medical point of view but also the emotional side. Two MOOCs were developed, one on medicine and the other on languages on a non-commercial platform.

They implemented a laboratory with which they trained the students, and the teachers were also involved. The challenge was to implement capabilities, competencies more than just knowledge. It was about doing it in a very practical way. They have many documented success stories that have helped them in improving the situation of patients as well as the people who interact with them. This laboratory and activities continue to work today, it is fully integrated into the training of professionals in palliative care.

During the COVID it was very useful due to the accessibility of the materials, they helped to continue training during this period.

D. *Example 4 – KA204 - Adult Education Field: Developing Skills in Dealing with Emergencies: Civil protection for people*
URL: https://bit.ly/3lUQ5fA

It began due to the need for training in aspects related to civil protection that were not sufficiently known by the people. The aim was to train volunteers and other people to learn more about how civil protection works in situations of natural disasters: floods, fires, earthquakes, volcanos, etc. In addition to providing training, the aim was to train the participants to be able to solve problems in these situations and be able to be of help for the community.

Volunteers, adults, seniors from different non-profit organizations specialized in civil protection such as the Red Cross (in Italy) were involved. They collaborated with educational centers and carried out practices with the students of those schools/universities, with emergency plans for their homes, and they discussed them with their families, they created videos on YouTube to explain what they did in each case. They also worked on raising awareness of the use of the 112-telephone number (emergency number, explaining how to use it- in Greece).

Regarding the teachers, they were provided with materials to use in the educational centers (in their schools, age 12-15, or 10-12 or 15-18), and they used them to organize activities for the students. They are being used and updated through another subsequent project aimed at working on techniques on how to teach volunteers in fire protection, it is a larger project and in which they use their own eLearning platform for training and android app and want to create a network at the end of the project from the one in both projects. The idea is to expand the scope of this type of action in Europe with more partners.

E. *Example 5 – KA205- Youth Field: Summer e-CHALLENGE: Acquiring Soft & Digital Skills Through Non-formal Free-time Practices*
URL: https://bit.ly/3LZsfK2

This project was aim at reconciling work and family life in summer, for the age range of 8 and 14 extendable to 6-16 approximately corresponding to the period of Compulsory Education. It was about meeting the needs with varied activities, such as culture, photography, arts, science, open air, study visits, leisure parks, environmental-ecological issues, robotics etc. The teachers assisted in the planning and design of the activities covered. It included all areas: culture, STEAM (science-technology, arts), humanities, entrepreneurship, development, citizenship.

All the contents are made with public access and anyone can use them, this project began in 2016, a new project with the same format and objectives has been carried out every year, it has even been extended to the Christmas and Easter holiday periods. It is incorporated into local practices by the City Council, and it is prepared a month before.

With the Moodle platform for training, it helped to have it as a resource and in those cases that could not do it in person and as a repository of useful resources, conducting surveys, studying results, proposing ideas. It allowed communication between technicians, teachers, etc. fostering a team spirit.

The collaboration model between different institutions (21 organizations to promote educational activities) has been very useful, since it allowed the development of previous project activities, not only this one but others such as "Click Education for youngster". In all of them, activities were carried out to prepare teachers for taking advantage of ICT for their didactic use in the classroom, in addition to having a bank of opensource resources. Therefore, prior to the pandemic, all these experiences were available, the network was established, and this helped to use it during the pandemic, the teachers were better prepared. The list of available resources greatly facilitated their teaching work during that period and afterwards. The participation of teacher mentors or "influencers" who got involved in activities with talks, seminars, workshops and other international activities is highlighted. Many contents could be adapted.

There are additional projects with good practice award such "Spark Seed" (https://www.sparkseed.pt/), carried out with other partners. They have contact with the project partners, but they have not been involved in the development of materials for this latest project.

IV. Conclusions

This article has presented five examples of Erasmus+ projects classified as good practice in which teacher training stands out to better prepare and give tools that allow them to be successful in the teaching process.

The projects presented arise from the research that is being carried out to be able to provide a useful guide for teachers, in which the educational projects, compiled in the Erasmus+ results platform (PRPE+ - https://bit.ly/3sZMYXt), are being analyzed. This allows an analysis of the type of projects, results, topics and see those that have been classified as good practice or success story. This database is the main tool for collecting information together with the collaboration of the main actors of those projects that have been successful.

The methodology used is that provided by the guidelines for systematic reviews of research projects [9]. Currently, the research is in the phase of analysis and collection of additional information among the selected projects after having carried out an initial survey filled in by coordinators of 187 projects and an interview process in which a total of 22 projects, among those who conducted the survey, have participated.

To carry out interviews, a selection of institutions was contacted for having projects in which they have involved teachers and/or students, the results continue to be useful and have also been so due to the pandemic [16]. The interview phase has ended in May 2022 and the examples presented here are five, one per educational sector (school education, vocational education and training, higher education, adult education, and youth), which stand out for their special relevance in working in areas related to teacher training. The purpose of the five projects presented in this article is to provide teachers with tools and knowledge to be able to develop teaching more efficiently.

The starting point of the five projects is based on meeting the real needs of the sector or area for which they are carried out, in addition to having the necessary resources, thanks to the Erasmus+ grant to develop tools that allow the preparation of the training materials. The training materials for teachers are developed in different modalities of digital platforms and can be accessed at any time, which gives great flexibility to the learning process.

In summary, the analysis of the projects presented here can help other institutions to be inspired to study how to carry out educational projects for teacher training, based on specific needs, thus guaranteeing greater success and impact in the teaching processes learning.

Acknowledgment

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