EDUCATIONAL KNOWLEDGE TRANSFER

17.

Evaluation of Users' Satisfaction and Assessment of the Products Derived from the Project

Project Information

Project acronym: EKT

Project title: Education Knowledge Transfer

Agreement number: 612414-EPP-1-2019-1-ES-EPPKA2-KA

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1. INTRODUCTION

1.1. Name of Project & Project Partners

The project is called Education Knowledge Transfer (EKT 612414-EPP-1-2019-ES-EPPKA2-KA) and the project partners were a mix of university and technical partners. There were 11 partners in the project, from each of 6 EU member countries. These partners were from two main categories:

- Technology companies that offer e-learning resources and services
- Educational institutions who provide initial teacher training (ITE).

The educational institution partners were:

1. **University of Santiago de Compostela, Galicia, Spain**

2. **University of Plymouth, Plymouth, UK**

3. **University of Minho, Braga, Portugal**

4. **University College of Teacher Education, Vienna, Austria**

5. **Marino Institute of Education, Dublin, Ireland**

The technical partners were:

1. **Supercomputing Centre of Galicia (CESGA), Spain**

2. **Lusoinfo, Portugal**

3. **BeezNest, Belgium**

4. **Die Berater, Austria**

5. **H2 Learning, Ireland.**

1.2. General Background

The Educational Knowledge Transfer – EKT project was a **Knowledge Alliance for Higher Education initiative** which included six EU countries. There were eleven institutions with different profiles involved in the project and the type of work that they conducted fell under two main categories. The first category included technology companies that offered services and resources of e-learning, and the second category was comprised of educational institutions who were responsible for initial teacher training (ITE) in their member states.

Throughout the three years of the project, **innovative strategies were implemented by combining the expert knowledge produced via educational research and technological optimizations involved in the project**. During the pilots in each country, participating institutions had the opportunity to work with new technological strategies that supported the school placement programmes in each institution, thereby ensuring placement was seen as a significant learning experience for those involved in the project.

The impact of the Covid-19 pandemic on the EKT project must be acknowledged at the outset of this evaluation report, where most of the EU member states went into full lockdown and schools and universities were closed for 18 months of the project implementation timeline. However, once schools and universities opened again, pilot studies continued apace, and much was done to overcome the Covid difficulties experienced by all partners to the project.

1.3. Project Website

The project website is found at *www.ektproject.eu*[1] and is comprised of the following seven sections:

1. *Home* – an overview of the project and details about the main project objectives is presented on this homepage. This page also contains a link to current news items about the project.

2. *Conference Page* – a landing page to link all interested parties to the final international conference, with details on the event, how to register and streaming information for the final event.

3. *About the Project* – a page that provides further information and details of the operation of the EKT Project, which includes information on the expectations of the project platform and an outline of the new and innovative approach of the EKT project.

4. *Project Goal* – this page gives a clear outline of all the objectives associated with the project and lists some key deliverables and expectations of the final devised EKT platform.

5. *Partners* – this page lists all the project partners, with links to their various websites and identifies the full membership of the project consortium.

6. *Resources* – this page provides a link to the EKT Platform and provides links to the most frequently accessed tools on the EKT platform. It also gives a brief overview of some recent news items from various social media accounts and newsletters, about the project.

7. *News* – this final page links to all publications and news items about the EKT project and other relevant news items.

The website content was translated from English into the following EU languages:

1. **German**

2. **Spanish**

3. **Portuguese**

4. **French**

1.4. Funding Sources

A grant of **999,272.50/eur** was awarded under Erasmus+ KA2: Cooperation for innovation and the exchange of good practices - Knowledge Alliances.

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[1] www.ektproject.eu

1.5. Start & Duration of the Project

The project was of 36 months duration and commenced in November 2019 and was due to end in November 2022. However, due to the impact on Covid on the project deliverables, an extension of six months to the initial timeline was granted by the EU and the project is now due to end in April 2023.

1.6. Knowledge Exchange

As we move deeper and deeper into the knowledge economy, **knowledge exchange between university and industry partners is essential** for the development of new tools. For ongoing co-configuration and customisation of specific tools for specific purposes to happen (Victor and Boyton, 1980[2]), we must ensure dynamic, reciprocal relationships - in other words **we must talk to each other, listen carefully and then respond with a growing understanding of each other's position.** Each partner has important knowledge that is vital to development of a new product, but sharing this knowledge is not a one-off handover of information; it is an ongoing conversation enhanced by a deep understanding of each other's needs and interests.

In this EKT project, university partners needed to explain what was so important about placement; industry partners needed to explain about the structure of what they were creating, to make conversations about problems and enhancement easier.

In this EKT project, **knowledge exchange occurred as industry partners learnt about the kinds of communication that need to be facilitated during teaching placements in universities.** They learnt about who needs to communicate and when about what sort of things, what needs to be recorded and assessed and what else needs to be accessible. At the same time, university partners learned about the affordances and constraints of digital tools. Conversations between partners needed to respond in real time to ideas and concerns, and to position the tool that the industry partners were building in the wider context of other official university sites and social media.

1.7. Project Aims

Knowledge Partnerships aim to strengthen European innovation capacity and encourage innovation in higher education and collaboration with business and the wider socio-economic environment. They are therefore intended to achieve one or more of the following **general objectives** reported in this project:

- To develop new innovative and multidisciplinary approaches to teaching and learning
- To stimulate the entrepreneurial spirit and business skills of higher education teaching staff and staff in enterprises
- To facilitate the exchange, circulation and joint creation of knowledge.

The **main groups and institutions** targeted by the EKT project were:

- University lecturers and researchers of Education Sciences
- Universities (especially Faculties of Education, University Colleges of Teacher Education)
- Kindergarten, Primary and Secondary Education Schools and teachers
- Higher Education Students (European Kindergarten, Primary and Secondary Education prospective teachers)
- E-learning companies (providers of ICT and services)

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[2] Victor, B. & Boynton, A. (1998) Invented here: Maximizing your organization's internal growth and profitability (Boston: Harvard Business School Press).

1.8. Project Objectives

The EKT project overall objective was to contribute to the modernisation of European higher education systems, promoting student-centred learning and teaching through increased support for effective cooperation between higher education institutions, enterprises and the public sector. **The specific objectives of the project included**

- **To align the response of technical companies** (in the e-learning sector) with the needs of education in Europe in order to articulate a better response to the challenges facing education today. Specifically, to align advanced e-learning tools and services with active and flexible teaching-learning methodologies, which allow better collaboration, supervision and mentoring between universities and schools in order to produce a reflexive process during the school placement timeline, for future teachers.
- **To establish co-operation between e-learning companies** (ICT and service providers) and researchers/education experts (education science faculties), to ensure innovation in higher education. In particular such co-operation allowed technical partners pilot their e-learning tools and services in real educational contexts. This also ensured they could research and develop their future uses to adapt them to educational needs in various EU partner countries.
- **To improve the quality of university training of student teachers during their professional training period** (school placement period) through the implementation of ICT services and resources, developed jointly between e-learning companies and universities. This was to be achieved through the development of flexible educational methodologies, advanced e-learning solutions that were adapted to the initial teaching processes, supporting collaboration, monitoring and reflective learning of student teachers.

The **overall objective of the EKT project is to ensure the technological platform created can be used in other universities**, with any type of education, that include placement requirements and could also support the teaching induction period, across the EU member states in the future.

2. REVIEW OF INTERNATIONAL & NATIONAL CONTEXTS

This section will outline how international and national events impacted on all outputs derived from the EKT project.

2.1. School Placement Variations

In some countries (e.g., Spain and Ireland) ITE can take place at graduate level. In England, two different teacher training paths can be found, a more regular HEI route and school-led postgraduate (consecutive) routes that involve different kinds of programmes. No matter the country, **ITE in each institution required completion by students of a block, or blocks, of in-school placement (ISP)**. The characteristics of these placements do vary according to the features of each national educational system and the respective ITE programmes being completed by the students. In general ISP is developed under local agreements between HEIs (where ITE programmes are developed) and schools (where ISP takes place) and all school placement involves both HEI lecturers and school teachers acting as mentors or supervisors, during that placement block.

The selection of these school tutors varies from country to country as well as the role they play and their participation in the students´ evaluation. There was variation regarding the tasks required of students, the number of hours involved and the kind of materials they must produce during ISP. Despite these variations, all university partners were concerned with the promotion of reflective practice through use of different instruments by students to conduct such reflection. School placement, as an integral feature of all initial teacher education programmes, was impacted by Covid, and this had a subsequent effect on the content of some of the topics discussed at transnational meetings.

2.2. Covid Impact on Placement

The impact of Covid on school placement cannot be underestimated, for each partner institution. For example, in most if not all partner countries, schools and colleges were closed for most of 2020 through to mid-2021.

Most schools went online and in Ireland, no school placement visits happened during that timeline. In some cases, school visits were based on what a student teacher 'might' do if they were in a classroom, and as such, their opportunities for in-school experience were entirely limited. When school re-opened, in-person placement was a top priority for all Institutions and there was lots of time spent ensuring class groups had met their qualification requirements, to ensure they could graduate with no delay to their future careers. The impact of lack of school placement occurring on the project meant pilot studies were delayed by at least 18 months in some instances.

2.3. Conclusion

While the partner institutions had some differences in their local requirements for placement, the importance of **placement as a key element of teacher education** was clear in each national context. Placement is a time for students to use the skills and knowledge they have acquired in university and implement those skills in a real school environment in a supported, assessed manner to ensure they become reflective practitioners in their future classrooms. Many university partners to the project had to ensure placement, when it finally could occur, was a full and wide experience for the student teachers and this may have impacted their ability to pilot the EKT project with their students. The evaluation framework and methodologies used to evaluate all outputs of the EKT project are discussed in the next chapter.

3. EVALUATION FRAMEWORK & METHODOLOGIES

The **overall aim of the evaluation plan** (O15) as devised by Marino Institute of Education (MIE) and University of Plymouth (UoP) in early 2020 was to :

- Design and develop methods and tools for project monitoring, quality and evaluation
- Monitor the progress of each work package and process in the project
- Evaluate intermediate and final project results, including objectives from work packages.

The purpose of that evaluation plan was to allow partners to monitor the project's progress and to ensure the project remained responsive to shifts in purpose and to allow all partners to have an open dialogue throughout, by providing timely information on progress and developments.

3.1. Project Evaluation Principles

These **general evaluation criteria** can apply to any of the work packages identified in the project. All project partners were advised and reminded of these criteria throughout the EKT project.

- Consistency between work plan and activities undertaken to include effectiveness of the implementation of the activity, and adherence to the original work plan and timelines.
- Overall management of the project to include quality of the management procedures used during the project, and the quality and effectiveness of the leadership demonstrated by the project co-ordinator, Universidade de Santiago de Compostela.
- Overall adequate allocation of resources to include effective and fair allocation of human resources, and associated resources for the duration of the project timeline.
- Overall goals, objectives and products created during the project should comply with the proposed objectives especially in relation to the e-learning content created.
- That there is an effective integration of activities by each partner institution and that this integration applies to those involved in school placement, schools and other partner institutions and organisations involved in the EKT project.
- That partnership is demonstrated by all members of the EKT project consortium, where there is evidence of a strong commitment to the project by each partner, that there is effective communication between all partners, that positive attitudes exist between partners and that, by the existence of this consortium, added value is gained for all partners to the project.
- That dissemination and exploitation of the project is supported and communicated by and to other projects and organisations, and that dissemination objectives are quality products that can promote the European dimension of the project and that the actions taken during the EKT project will ensure sustainable objectives and results.

3.2. Evaluation Plan Criteria

The evaluation plan outlined overarching criteria that all elements of the EKT project objectives should adhere to (Figure 1).

Figure 1: *Overall Evaluation Criteria of EKT*
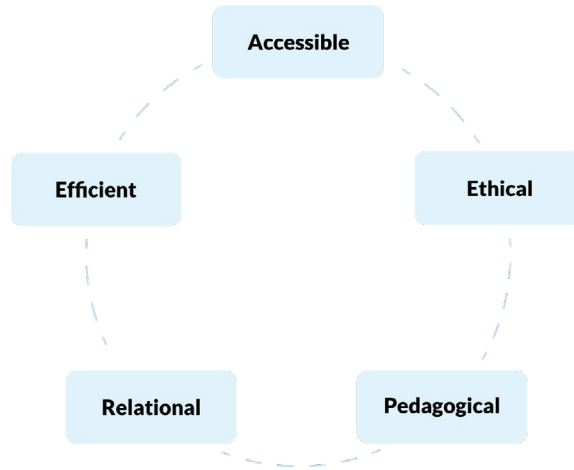
3.2.1. Accessible

A key consideration for the overall evaluation of the project was accessibility of the tools devised. As such, project partners agreed that any technological solutions, mobile tools, and software selected for use in the project would comply with following criteria:

1. **Complexity of the technological tool**
2. **Security of data and privacy (GDPR) of the tool/platform**
3. **Clarity**
4. **Usability**
5. **Use of Common Technical Framework**
6. **Scalability**
7. **Availability of features, including tools for all profiles of users (tutors, mentors, students, teachers, administrative staff, etc.)**
8. **Compliance with Universal Design for Learning (UDL)**
9. **Compatibility/ interoperability with tools already in use in the partner universities.**

The EKT platform, as devised by the technological partners, does comply with these accessibility criteria, which were incorporated into project evaluation tools.

3.2.2. Ethical

Given the age profile of the prospective student teacher participants, MIE and UoP were aware that the ethics around all parties' involvement in the EKT project, pilot studies and subsequent tracking of their use of the final EKT platform was a concern for the overall success of the project.

Ethical approval for each pilot study in each country was required, and this evaluation report noted that all university partners were successful in their applications for ethical approval.

3.2.3. Pedagogical

The initial evaluation plan suggested that all products and materials created over the course of the EKT project should require a 'pedagogy first' approach in their design. The criteria for the EKT product were that the final it should

1. **Promote reflective practice**

2. **Guide and support the mentoring process during school placement**

3. **Challenge assumptions of what technological interventions can achieve and**

4. **Develop social and multicultural dimensions of the project.**

The EKT platform does adhere to these pedagogical principles, as evidenced through the educational methodology set out in Work Package 3 and the design of the Small Private Online Course (SPOC) in Work Package 5.

3.2.4. Relational

The evaluation plan required that the products and materials created over the course of the EKT project should adopt a positive interpersonal tone that

1. **Facilitated communication**

2. **Was supportive of participants and**

3. **Allowed collaboration and co-operation by all members of the school placement triad.**

The EKT platform and the Small Private Online Course as created by the project do adhere to these relational criteria, which were incorporated into project evaluation tools.

3.2.5. Efficient

The evaluation plan required that all materials and products should be designed in a way that would maximise time spent learning procedures and accessing resources and that self-learning processes should be employed where possible.

The EKT platform complies with this criterion, where all content was self-paced and available in an asynchronous manner to facilitate the needs of the learners, including all elements of the SPOC and the communication and reflection tools available on the EKT platform, such as the international chat room, forums and the ePortfolio tool.

3.3. Quality Assurance

All evaluation tools created were done so in a confidential and anonymous manner (for questionnaires and SWOT analysis tools). All evaluation reports were made available to all partners on the virtual platform (Cumulo[3]) and were open to review by all consortium members. Three final reports were produced to evaluate the extent to which the project has met its objectives, and the quality of its outputs:

1. **016 -** Evaluation of transnational meetings

2. **017-** Evaluation of users' satisfaction and assessment of the products derived from the project

3. **018-** Evaluation on impact of EKT proposal on students' professional competencies

There were two main purposes for internal self-assessment of each meeting and project objective: primarily to ensure that the project was on schedule and secondly that the products were of a high quality and met objectives. Evaluation of the resources was built into the developmental work towards all objectives and work package leads had responsibility to monitor progress of tasks within their own work package.

The evaluation of specific tools created as part of this project were based on Compeau and Higgins' (1995)[4] technological self-efficacy scale, which has been proven as a valid digital competency measurement scale in recent literature (Depaepe & König, 2018[5]; Moulding, Stewart, & Dunmeyer, 2014[6]; Niederhauser & Perkmen, 2010[7]; Thibaut, Knipprath, Dehaene, & Depaepe, 2018[8]). This tool had been used successfully by the lead researcher (Egan, 2018[9]) to evaluate pre-service teachers' use of various technological tools, during her PhD and subsequent post-doctoral research[10].

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[3] *https://cumulo.cesga.es/index.php/apps/files/?dir=/EKT&fileid=4319525*

[4] Compeau, D. R., & Higgins, C. A. (1995). Computer self-efficacy: Development of a measure and initial test. MIS quarterly, 189-211.

[5] Depaepe, F., & König, J. (2018). General pedagogical knowledge, self-efficacy and instructional practice: Disentangling their relationship in pre-service teacher education. Teaching and teacher education, 69, 177-190.

[6] Moulding, L. R., Stewart, P. W., & Dunmeyer, M. L. (2014). Pre-service teachers' sense of efficacy: Relationship to academic ability, student teaching placement characteristics, and mentor support. Teaching and teacher education, 41, 60-66.

[7] Niederhauser, D. S., & Perkmen, S. (2010). Beyond self-efficacy: Measuring pre-service teachers' instructional technology outcome expectations. Computers in Human Behavior, 26(3), 436-442.

[8] Thibaut, L., Knipprath, H., Dehaene, W., & Depaepe, F. (2019). Teachers' attitudes toward teaching integrated STEM: The impact of personal background characteristics and school context. International Journal of Science and Mathematics Education, 17(5), 987-1007.

[9] Egan, A. (2018). Pre-service teachers and their experiences of technology: A mixed methods Study (Doctoral dissertation, Trinity College Dublin. School of Education. Discipline of Education).

[10] Egan, A., FitzGibbon, A., Johnston, K., & Oldham, E. (2019). Pre-Service Teachers' Technological Self-Efficacy-an Irish Perspective. In Society for Information Technology & Teacher Education International Conference (pp. 1803-1812). Association for the Advancement of Computing in Education (AACE).

4. EVALUATION METHODS

Figure 2: *Work Package 7 Objectives*

WP7	Evaluation and quality plan (MIE & UoP)	Achieved
O15	Evaluation and quality plan	Yes
O16	Evaluation of transnational meetings	Yes
O17	Evaluation of users satisfaction and assessment of the products derived from the project.	Yes
O18	Evaluation on impact of EKT proposal in student& professional competencies (prospective teachers)	Yes

To complete all objectives required of this evaluation work package (WP 7) different methods were used to evaluate different project elements. The methods applied for each output are now discussed and how they were applied by each partner organisation. Figure 3 demonstrates the timeline for the application of each tool, for each pilot study in each partner university. For example, once pilot participants had completed the SPOC (Small private online course), they were sent a questionnaire to evaluate their satisfaction using that tool (O17). These pilot participants were then invited to attend a focus group or interview and were asked for their evaluation of the SPOC & EKT Platform.

To complete evaluation of the internal risk management of the project, an anonymous **SWOT analysis tool** was utilised by the WP 7 lead researchers (Figure 4). This risk evaluation tool measured Strengths, Weaknesses, Opportunities and Threats of management of the project and of members of the consortium. Using SWOT risk analysis allowed for early intervention and could identify risks and opportunities that arose during the project. For example, using SWOT, a partner can evaluate their own participation in a transnational meeting and can conduct their own reflective analysis, quickly, following a meeting in an anonymous manner (O16). The SWOT analysis grid was created using an online 'post-it style board' on Padlet[11], and the link was sent to all partners, before and after each transnational meeting. The results were then uploaded to the shared Cumulo[12] workspace and provided a visual and anonymous 'board' of any concerns or matters partners may have been concerned about during the project (O16).

By using a mixed methods approach to the research, the full views of EKT participants were collected. All questionnaire data were analysed using SPSS and MS Excel, and the interview and focus group data were analysed using NVivo, adhering to a thematic analysis methodology.

Figure 3: *Evaluation Tools used by each Partner (O18)*

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[11] *www.padlet.com*

[12] *https://cumulo.cesga.es/index.php/apps/files/?dir=/&fileid=4397406*
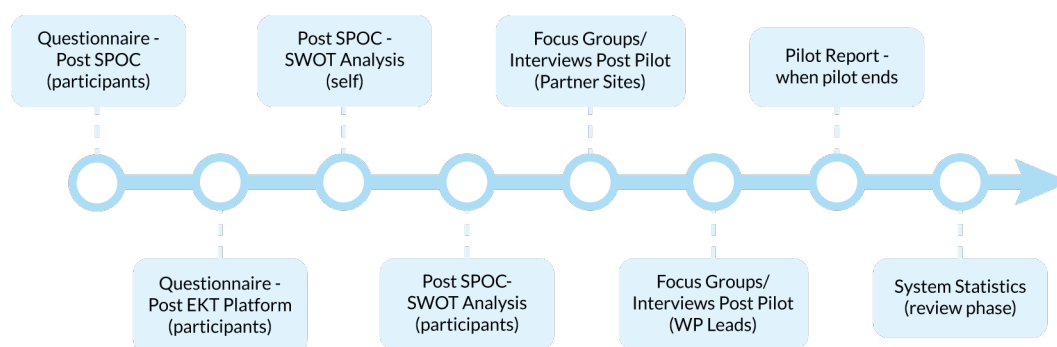
Figure 4: *SWOT Analysis Evaluation Tool*

Internal		External	
Strenghs	Weaknesses	Opportunities	Threats

5. KEY FINDINGS & RESULTS

This chapter will review the project outputs associated with each work package and comment on their successful completion, or otherwise, and note the variables, if any, that impacted on their execution.

5.1. Work Package 1

The lead partner on this work package was Universidade de Santiago de Compostela, managed by Dr Carmen Morante Fernandez and her colleagues. The overall objective of this work package was to ensure effective management of the project, and to ensure the reporting requirements of the project were met in a timely manner. Measurement of the success of this work package was based on implementation of all objectives required to complete the project in a timely, within budget, manner. This work package completed successfully in May 2023.

Figure 5: Work Package 1

WP1	Project Management (USC)	Achieved
O1	Partner agreements execution and agreement	Yes
O2	6 Project meetings	Yes
O3	Interim findings and final reports (2 interim reports/1final)	Yes *due May 23
O4	Final International Conference	Yes

Output 1 was achieved in November 2019, for all partners, and the project commenced on schedule. All other partner agreements were successfully executed, signed and returned to Universidade de Santiago de Compostela, as managing partner, early in 2020.

One partner (Netex) left the project in December 2022, as they did not fulfill their role. As a consequence of this, there was some delay in the development of WP4 (a core element of the project) and other associated work packages. In the first project progress report, and in the consortium's change request, presented by the managing partner, all the issues and proposed solutions were outlined. Faced with the lack of response from Netex, the project consortium sought an alternative solution, to ensure continuation of the work packages. Hence, some of the tasks were redistributed amongst the other project partners to ensure the fulfillment of the required project objectives. This solution was an imposition on other members of the consortium, but allowed the project deliverables and activities to complete, on time as required.

Output 2 was achieved successfully throughout the project despite the impact of Covid which made travel and partner visits impossible, due to travel restrictions in place from March 2020 to mid-2022. However, once travel restrictions were lifted across Europe, transnational meetings were organized quickly. Where online meetings were held, they were held over the course of 1.5 days online, to ensure all work package leads had time to present on their progress to date, and they could demonstrate their outputs to the wider consortium members. Hence, all six transnational partner meetings did occur successfully.

Figure 6: *Dates & Venues for Transnational Meetings*

Meeting Number	Event & Date	Location	In Person or Online
1	January 2020	Santiago de Compostela, Spain	In Person
2	July 2020	Plymouth, UK	Online
3	December 2021	Dublin, Ireland	In Person moved to Online last minute
4	July 2022	Braga, Portugal	In Person
5	December 2022	Vienna, Austria	In Person
6	April 2023	Santiago de Compostela, Spain	In Person

Output 3 was achieved successfully and at the time of writing (April 2023) the final report is due to the EU Commission in May 2023. An interim report was delivered in July 2022, and is available on the EKT project website[13].

Output 4 was completed using a hyflex delivery mode (in person & live streaming) of the final international conference, held on site in Santiago de Compostela University, Spain on Thursday 13 April 2023 (Figure 7). The full international conference details can be viewed on the *https://ektproject.eu/conference/* website and are copied here for ease of reference. All sessions had a 'remote access/streaming' option, in different languages, to facilitate those who could not travel to Spain, to view the conference from their own countries. The final conference was open to all interested educational, technological, school and university colleagues and was very well attended. There were 352 registered participants, of which 112 attended in person and 235 remotely.

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[13] *https://ektproject.eu/resources/*

5.1.1. Evaluation Method – Reports created & meetings held.

The evaluation method for this work package was based on quantifiable reports produced on time, and the occurrence of all required transnational meetings during the project. The final conference occurred in April 2023 and all elements of this work package 1 were completed successfully.

Figure 7: *Schedule for Final International Conference, April 2023*

5.2. Work Package 2

Figure 8: *Work Package 2*

WP2	Study of in-school teaching practice (in-school placement) needs and possibilities of the technol... (UM)	Achieved
O5	Report on in-school placement. Needs and possibilities of the technologies	Yes

University of Minho, Braga led on work package 2 and the objective was to conduct a transnational analysis of school placement in each country and provide a report on the different school requirements therein. This work package was completed in July 2021, with additional amendments made and reported, in January 2023. A full report is provided by University of Minho and the findings are summarised here for ease of reference. This WP2 report also provides some context for the implementation of the project deliverables, where each university conducted their placement in different ways, and at different times of year, in each institution.

5.2.1. The Spanish Experience

In Spain, teacher education programmes are provided by public and private universities and, within them, by their respective Faculties of Education. **Nursery school and primary school teacher education** is achieved through an 8-semester undergraduate degree programme or a 2-semester postgraduate degree programme focused on didactic and pedagogical training. The structure of these undergraduate and postgraduate programmes involves a pre-defined number of compulsory and optional European Credit Transfer System (ECTS) units in different areas, including school placement.

School placement in Spain is carried out in public and private educational centres using specific agreements that regulate the rights and obligations of all parties and agents: faculties of education, schools, trainees, school and university tutors. There are general agreements with the educational administration under which the practice is formalized in all educational centres supported with public funds. In the nursery and primary school undergraduate programmes, there are two internship periods (Practicum I and II, corresponding to 42 ECTS credits (out of 240). The Practicum allows students to reflect critically and apply the knowledge acquired in the different subjects of their degree in a real educational context (ie. School). This practicum allows a student teacher to conduct **observation, analysis, planning and intervention activities** that enable them to acquire skills to work as teachers or to develop educational guidance tasks.

Students usually record the process of their Practicum in a classroom diary that serves as a basis for their practice report. This instrument has no specific format, and it is the university supervisor in collaboration with the school tutor who guides the student in their preparation for practicum. The whole process of observation and intervention that is carried out throughout the Practicum must be accompanied by critical reflection and permanent interaction with the tutors in order to adequately interpret what happens in the development of the practices.

Students must write a report on each stage of the work placement, explaining the context of the centre, their observation of the teaching process developed at the centre, the tasks they have carried out in collaboration with the work placement tutor, their planning of a teaching proposal or educational guidance action, as well as their evaluative conclusion on the training contribution of the work placement experience. The placement tutor (usually a HEI lecturer) evaluates the student based on the tasks carried out in the work sessions with the student and the review of the internship report. This was all **done manually in Spain before the EKT platform** became a reality.

5.2.2. The Austrian Experience

In Austria, teachers in the pre-primary education field are prepared in teacher training colleges for early childhood education. These are five-year courses for higher vocational education in Austria. In addition to pre-primary educational training content, general educational content is also taught throughout the entire training course. S**pecialisation in the area of day-care pedagogy is possible during the course** and the qualification includes in-depth practical training (practicum in Spain) in various early childhood educational institutions. ITE programmes (eight-semester bachelor's programmes with 240 ECTS and at least two- to three-semester master's programmes with at least 60/at least 90 ECTS) contain a joint "pedagogical core" (at least 60 ECTS) which guarantees a uniform knowledge of general educational fundamentals. In addition, the practical aspects of the teaching position are covered here in the form of practical teaching experience (practicum in Spain).

For all teacher training programmes, a one-semester introductory and orientation period (Studieneingangs- und Orientierungsphase or StEOP) is required. New teachers are accompanied by a mentor in their first year of service (one-year induction year). The school internship consists of lessons (private lessons/team teaching) / observation in class, a didactic reflection/ practice day at the school with the mentor, didactic reflections at the teacher training college with the practice supervisor by prior arrangement and completion of written assignments associated with placement. Certified practical teachers and mentors provide supervision for students in pedagogical practical studies. In Austria, **all written tasks are documented in a portfolio.** The selected format, platform (ePortfolio Mahara, etc, ...) has to be agreed upon with the practice supervisor, the schedule for submitting the portfolio is communicated by the practice supervisor at the beginning of the semester. Usually, teacher trainees have to hand in a report which is graded/feedbacked by a mentor.

5.2.3. The Irish Experience

In Ireland, initial teacher training of primary and post-primary teachers involves concurrent (undergraduate) and consecutive (postgraduate) programmes: the former refers to an Undergraduate Teacher Degree (4 years); the latter implies the attendance at a 3/4 year undergraduate programme followed by a 2-year postgraduate programme, the Professional Master in Education (PME). Afterwards, teachers enter "an integrated professional induction framework for newly qualified teachers" (Droichead[14]) [...] designed in collaboration with the profession to **reflect the importance of induction for new teachers** as they are formally welcomed into the most important profession in society. It is grounded in the belief that those best placed to conduct this formal welcome are their experienced colleagues who have relevant and in-depth knowledge of teaching and learning in their respective schools".

During his/her ITE process, **a student-teacher is required to spend 20 weeks in schools** over the course of any of the programmes referred to above. The second half of the programme must include one 10-week block of placement. Students are required to agree with the school, in advance of the 10-week ISP placement, a plan of work for the school-based activity block. Students are expected to plan for an additional SET (Special Education Teaching) block in consultation with their class teacher (s). Both the SET and 10-week placement blocks are assessed through the Professional Portfolio (ePortfolio using Mahara or Google Sites) and the Post-Placement Interview. Students may have a visit from a School Placement Tutor during the 10-week placement block and/or SET block. These visits are formative in nature and involve the observation and/or dialogue with the student and/or school personnel.

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[14] *https://www.teachingcouncil.ie/en/teacher-education/droichead/*

The Teaching Council Guidelines on School Placement provide a structure for the school placement blocks and are aimed at promoting **collaboration and balance of responsibility between teacher education programme providers and schools.** They contain useful information about the duration, structure and timing of the placement, the settings and activities which are appropriate and the roles of all the key stakeholders.

Students must complete a vetting agreement with the national police force before they can go out to a school. They must also comply with the Code of Behaviour requirements for their chosen placement school. The student teacher is very much a guest at the placement school. Initial teacher training is facilitated by the school but has nothing to do with the school or its management.

5.2.4. The Portuguese Experience

Teacher training in Portugal takes place at public or private institutions and universities (nursery and primary school teachers) **or exclusively at universities** (secondary school). It involves the attendance at an undergraduate (6 semesters) and master's programme (3 semesters, in the case of nursery school and primary school teachers, 4 semesters, in the other cases). The structure of these programmes is defined by the government and the correspondent ECTS requirements. Trainers are teachers at the institutes and universities, most of them holding a PhD degree. At schools and nursery schools, students have, as a local supervisor, a tutor, chosen by the respective headmaster taking his/her profile into account (among the preference conditions, holding postgraduate specialization in didactics and supervision).

ISP takes place in schools under a protocol established between the HEI and the schools at a local level. ISP has a minimum number of correspondent ECTS units that vary according to the teaching level of the programme (32 to 48 ECTS). Different subjects contribute to ISP, by focusing on contents and/or methods implied in practice. ISP includes modules, taught in HEI institutions, that provide students with theoretical and methodological knowledge that is implied in practice. The achievement of the teaching professional award depends on the approval of the Practice Report, similar to the other partner countries in this project.

ISP involves the design, development and evaluation of a Supervised Pedagogical Intervention Project, supervised by the HEI tutor with the collaboration of the school tutor. School placement promotes **reflexive and experiential teaching and assessment methodologies,** including diverse professional learning tasks: guided inquiry; observation and analysis of contexts and practices; design, implementation and evaluation of a pedagogical intervention project; writing a teaching portfolio and other personal reflective practice.

5.2.5. The English Experience

In England, two different teacher training paths can be found: provider-led - run by higher education institutes (HEIs) or school-centred initial teacher training (SCITT) providers - and School Direct (fee funded) and School Direct (salaried) which are, run by schools. **In the HEI routes, there are two different pathways to becoming a qualified teacher**. Route one is a HEI-led undergraduate concurrent programme, led by a higher education institution (HEI) which must be an accredited provider of initial teacher education, similar across all partner universities on this EKT project. These undergraduate programmes are typically of 3 or 4 years' duration and have a classroom experience (placement) requirement of 24 or 32 weeks, respectively. These programmes can lead to professional accreditation (QTS) and an academic qualification (a bachelor degree such as the BEd). The second route available is the Postgraduate method (PGCE/PRGCE), involving HEI-led consecutive programmes. The HEI, as the accredited provider, selects applicants and teaches a 1-year programme, with classroom experience requirement of 24 weeks.

A PGCE postgraduate programme requires two ISP blocks of placement, corresponding to 24 weeks and 30 and 40 ECTS. In an undergraduate Bachelor of Education programme, in Year 1, there are 3 x 2-week blocks (1 per term roughly); in Year 2, there is 1-week induction (voluntarily established by the student), then a 7-week block and, in year 2, a 10-week block separated by Christmas (total: 24 weeks). A core content framework introduced by OfSTED (Office for Standards in Education) provides an outline of the format of placement that should be adhered to by all ITE providers. School tutors and university tutors work to support students to fulfil the tasks and also compile their evidence to meet the OfSTED standards – this is a holistic practice and not just based on their teaching in the classroom.

Students are inducted into their placements similar to new members of staff – there will be a professional tutor (who could be different from their classroom teacher) who will ensure the student has an adequate timetable (to be compliant) and meets all safeguarding requirements within the school. Student teachers on placement are treated like qualified members of staff in terms of duties and roles and responsibilities in their respective classrooms and schools.

In addition, **there are a variety of other training options for aspiring teachers**; training pathways are offered to move from an unqualified position in school to qualified teacher status while continuing to work, to change career (for example, Troops to Teachers) or to fast-track high achieving graduates/postgraduates/postdoctoral researchers into working in schools (Teach First and Researchers in Schools). All routes must be supervised by a government-accredited provider,(which might an HEI, a school or a consortium) and include a placement element at least equivalent to HEI-only routes.

5.2.6. Conclusion

While the partner institutions have some differences in their local requirements for placement, **the importance of placement as a key element of teacher education** is clear in each national context. Placement is a time for students to use the skills and knowledge they have acquired in university and implement those skills in a real school environment in a supported, assessed manner to ensure they become reflective practitioners in their future classrooms. Many university partners to the project had to ensure placement, when it finally could occur, was a full and wide experience for the student teachers and this may have impacted their ability to pilot the EKT project with their students. However, the evaluation tools and methodologies are discussed in the next chapter.

5.2.7. Evaluation Method – Report complete.

The documentary analysis, which was conducted on the placement requirements in each country, was used to inform the creation of the technological solution (hereinafter EKT Platform) that would support school placement in each country, and more generally the teaching profession, and all members of the teaching placement, or practicum, triad. This work package was completed successfully in July 2021, with additional amendments made and reported, in January 2023.

A full report of school placement in each country, created by the University of Minho, Braga is available on the EKT website[15].

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[15] *https://ektproject.eu/resources/*

5.3. Work Package 3

Universidade de Santiago de Compostela led on work package 3. The objective was to conduct an analysis of the different e-learning services and technological resources available in the marketplace that might meet the EKT project requirements. Once these e-learning resources had been reviewed, each resource was evaluated based on their educational potential and possibilities of convergence and interoperability (commercial and free software and digital resources). This work package, like WP4, runs throughout the project and includes an initial version of output 6 for the EKT Platform design and piloting and a final version for closure to update the proposal with the final version of the EKT platform. The beta version of Output 6 was developed in September 2021 and the final version in April 2023.

Figure 9: *Work Package 3*

WP3	Set an educational and technological framework (USC)	Achieved
O6	Educational and technological framework for development of professional competencies in-school placement	Yes

5.3.1. Evaluation Method – Educational & Technological Framework Created

A sample of the Educational and Technological framework created by University of Santiago de Compostela is replicated here and is available to download on the EKT website[16].

Figure 10: *EKT Educational Framework example: EKT Teaching competence Framework*

AREA OF COMPETENCE							
	Professional updating	Educational intervention	Creative and innovation	Social and relational	Communicative	Digital y mass media	Personnel and Ethics	Reflection, evaluation and feedback
CONCEPTUAL DESCRIPTION:	• To retrain, to maintain "employability", to constantly train oneself with regard to the demands and needs that arise in the work context.	• Transfer professional knowledge and skills to real educational scenarios and processes.	• Create new approaches and novel/innovative approaches to educational processes and scenarios. • Continuous improvement of practice.	• Creating and managing positive interaction situations in any professional or personal scenario/ situation • Contribute to maintaining a favourable climate for coexistence, learning and collaboration.	• Maintain an attitude of proximity and empathy with students, families and other professionals. • Creating and managing communication situations with empathy, receptiveness, spontaneity and clarity, fostering a climate of trust and constructive exchange with the different agents (classmates, students, families, etc.).	• Incorporate the educational possibilities of digital technologies and media into educational processes and institutions. • To guarantee the digital and media literacy of students. • Accompany and collaborate with families in their responsibility for the digital and media education of students.	• Knowing oneself, taking care of oneself and maturing personally. • Maintain an emotional balance. • Develop critical thinking. • Mainain an active commitment to identity, professional ethics and the teaching profession. • Maintain an active commitment to inclusive values and respect-promotion of diversity in all its forms. • Maintain an active commitment to equality and co-education.	• Incorporate the educational possibilities of digital technologies and media into educational processes and institutions. • To guarantee the digital and media literacy of students. • Accompany and collaborate with families in their responsibility for the digital and media education of students.
COMPETENCIES	• Ability to acquire, assimilate, use and manage new contents related to educational action. • Capacity for the selection and application of contents and resources appropriate to the living space of each student and linked to their evolutionary process.	• Ability to select, design, use and consciously manage approaches, methods, didactic situations, adapted educational programmes, techniques, psycho-pedagogical procedures, learning spaces and times, as well as the most appropriate personal, material and digital resources to dynamise, promote and motivate learning. • Ability to work in teams with the members of the educational community in collective pedagogical projects oriented from a cooperative perspective.	• Ease of adaptation to changes in the educational process, generating new learning opportunities that are original, flexible, viable and adapted to the learning needs of each student. • Ability to explore different forms of creative expression in order to develop the child's aesthetic taste and critical spirit in the creative process.	• Ability to relate and interact appropriately with pupils, parents, colleagues and other experts involved in education • Ability to manage the participation, collaboration and intervention of pupils, mothers, fathers, colleagues and other experts linked to education in educational action.	• Ability to establish effective and efficient pedagogical communication with pupils, their parents and other members of the educational community. • Ability to regulate conflicts by orienting them towards dialogic processes and towards their resolution through cooperation and negotiation.	• Safe and critical use of information society technologies (IST) in order to improve the effectiveness of In-school placement. • Appropriate use of digital sources and resources for continuous professional development and communication with the different members of the educational community. • Designing flexible scenarios and digital educational content	• Active engagement in relation to teachers' professional identity and ethics.. • Ability to promote education in values with a moral basis and from a perspective of responsibility and respect.	• Ability to reflect from a propositive point of view and to critically assess one's own pedagogical work and that of others, in order to contribute to the improvement of one's own and others' education. • Ability to use evaluation as a means of regulating and improving didactic action.

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[16] *https://ektproject.eu/resources/*

Figure 11: *U EKT Technological Framework example: User Role Specifications (School Mentor)*

USER PROFILES, FUNCTIONS, DYNAMICS AND DIGITAL TOOLS		
Profile	Dynamic description	Appropriate EKT tool and possible functionalities/actionsReady or in process
School Mentor	Prepares documentation for student teacher and school with 1 collaboration of academic mentor (not always)	• **Onlyoffice:** Edit/create/work with documents online. • **Document tool:** private folders to store all the related documents.
	Prepares training/mentorize student teachers	• **Training tool:** Set-up the training course along the academic mentor • **Onlyoffice:** Create documents/cards/etc to be used by student teachers • **Communication tool:** Individual or group communication with student teachers via chat or videoconference. • **Document tool:** Store prepared documents and share them with student teachers. • **Content creation tool:** Create learning materials to be used by student teachers. • **E-portfolio:** Add contents to student teachers E-portfolio.
	Interacts with School coordinator	• **Communication tool:** Individual communication via chat or videoconference. • **Calendar:** share individual appointments/deadlines • **Document tool:** Share documents with the school coordinators. • **Onlyoffice:** collaborative work with documents (comments/chat within document) • **Management tool:** List of school coordinators and contact info
	Interacts with academic mentor	• **Communication tool:** Individual communication via chat or videoconference. • **Calendar:** share individual appointments/deadlines • **Document tool:** Share documents with the academic tutor. • **Onlyoffice:** collaborative work with documents (comments/chat within document) • **Management tool:** List of academic tutors related with assigned student teachers.
	Receives training from HEI	• **Training tool:** Access to the SPOC course for school mentors • **Communication tool:** Individual or group communication with HEI staff providing training.

5.4. Work Package 4

CESGA, the lead technical partner from Spain, led on work package 4 and were tasked with creation of innovative e-learning services and resources to improve the ITE experience during school placement in schools.

WP4	Develop and advanced e-learning system for in-school teaching practice (in-school placement) (CESGA)	Achieved
O7	Technical analysis report: Infrastructure definition and guidelines.	Yes
O8	Advanced e-learning system for in school placement	Yes
O9	Mobile app development	Yes

Figure 12: *Work Package 4*

5.4.1. Evaluation Method – EKT Platform Live

This work package presented an alpha version (Version 1) of the EKT platform in July 22. An improved beta version (Version 2) was released and went live in October 22 and the final release of the EKT platform is live since April 2023. The final 'mobile application' development is complete and is available for Android devices since April 23, and can be downloaded from the Google Play store here[17].

 A series of screenshots (Figure 13 to Figure 18) demonstrate what the EKT platform looks like in its current format and is accessible at *https://app.ektproject.eu/*.

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[17] *https://play.google.com/store/apps/details?id=com.cesga.ektproject*

Comments from focus group participants noted the 'ease of use' of the EKT Platform and were particularly impressed with the way the EKT platform worked on multiple browsers, including (eventually) their Android mobile devices. The full qualitative analysis of the EKT Platform is presented shortly under Output 18. This section merely demonstrated the accessibility, perceived usefulness and design of the EKT platform.

Figure 13: *EKT Platform Landing Page*
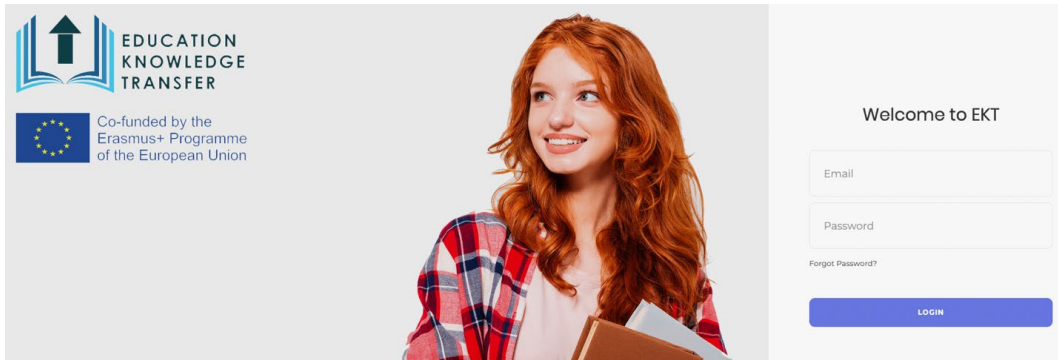
Figure 14: *EKT User Features (Student dashboard)*

Figure 15: *EKT Platform Course Creation Area*

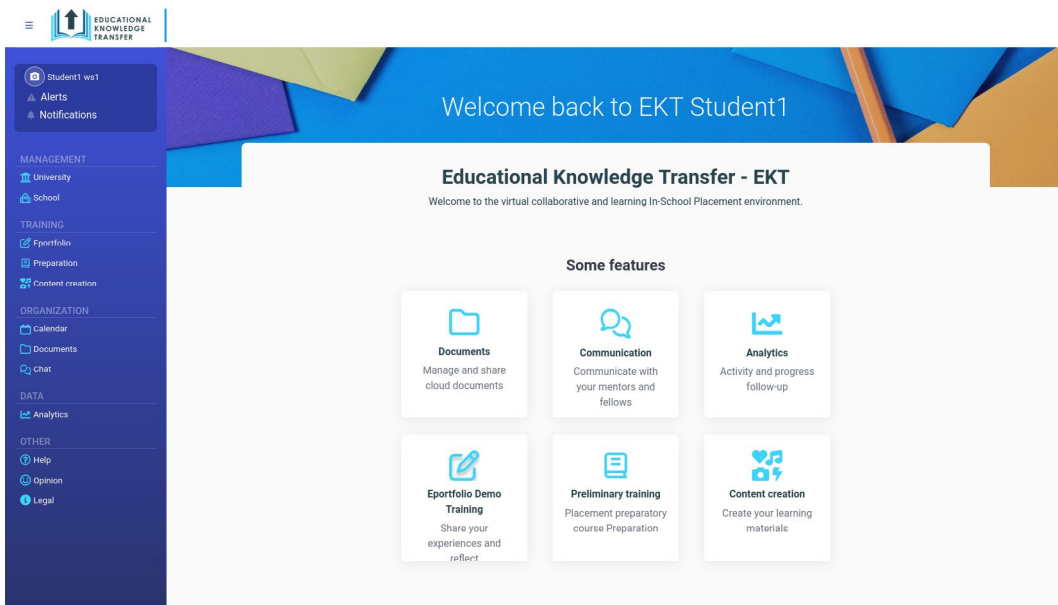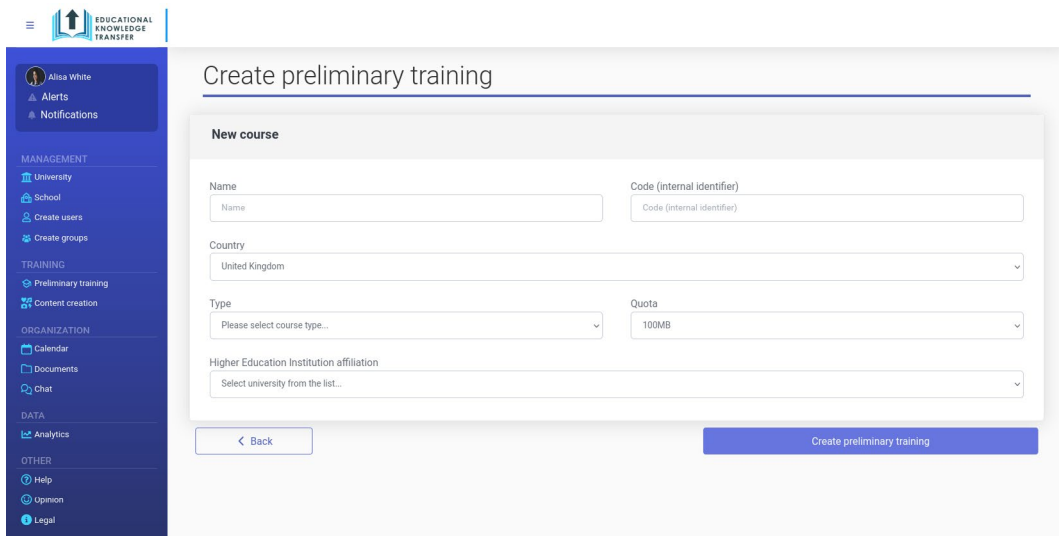**Figure 16:** *Google Play Store EKT App & Smartphone home screen*
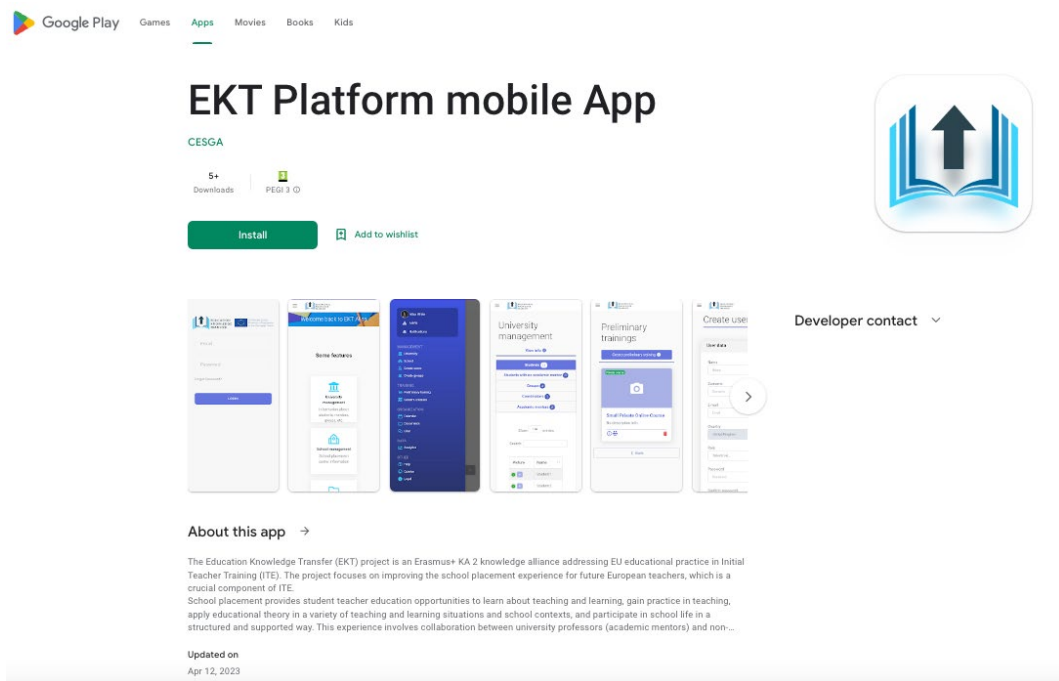
Figure 17: *Creation of Users Management Area*
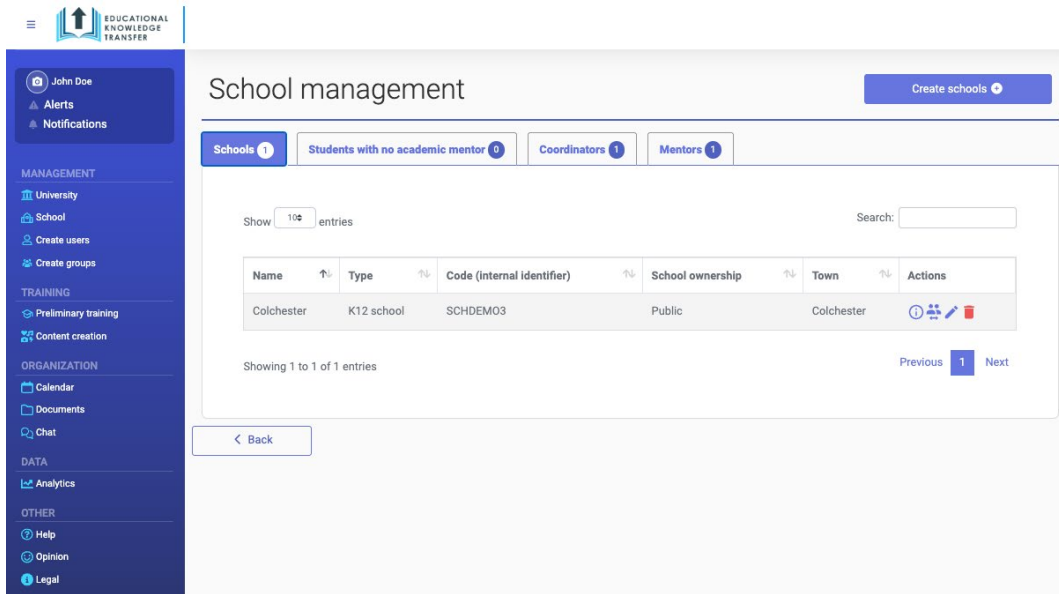
Figure 18: *SPOC Training Area on EKT Platform (Mentors and Student Teacher views)*
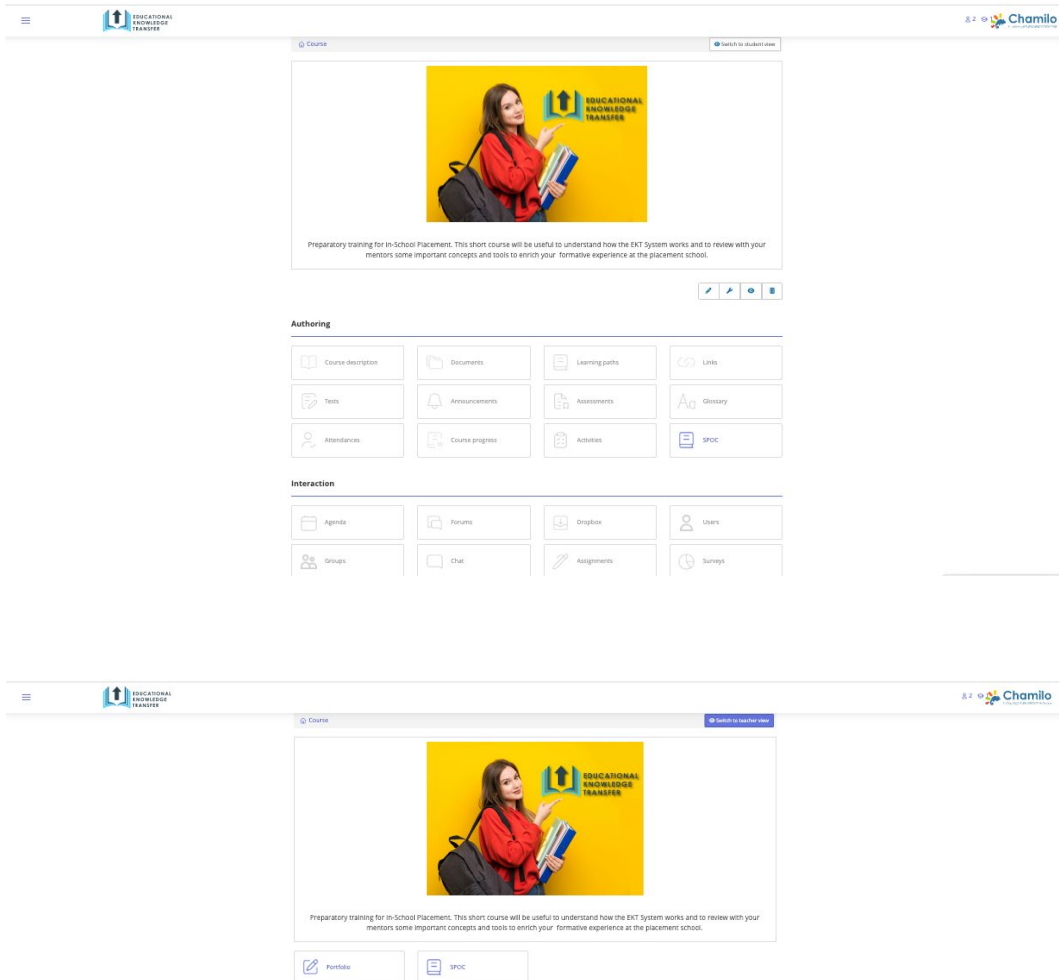
5.5. Work Package 5

The University College of Teacher Education, Vienna, Austria led on work package 5 and had to create a small private online course (SPOC) for members of the school placement triad, who would go on to use the features of the EKT platform. The contents of the SPOC were a key feature of the eventual EKT Platform, and the SPOC ensured all users could be trained online, in advance of their pilot study, in each partner university.

Figure 19: *Work Package 5*

WP5	Develop a Small private online course (SPOC) for teachers, Students and university lecturers (PHW)	Achieved
O10	Training platform for delivery SPOC	Yes
O11	Training contents for teachers, university lectures and student	Yes
O12	Development of training for teachers, students, and university lectures	Yes

Output 10 was achieved successfully, and a screenshot demonstrates what the SPOC Training Platform looks like for users of the EKT system, when they first log in (Figure 20). The Austrian partner had an 8-stage development process (Figure 21) for the SPOC which went live in time for the first university pilot, in October 2021.

Figure 20: *Sample of Course Content for participants(*https://app.ektproject.eu/spoc_en*)*

Figure 21: *SPOC Development Cycle*

Output 11 & 12 required all partners to provide feedback to the Austrian partner on their requirements for training of university mentors, school teachers and student teachers (Figure 21). These requirements were collected and converted into online course materials that form part of the initial learning path, for each user, when they log into the SPOC, before they commence to use the wider EKT platform features. The contents of the SPOC were very well received by most pilot participants, as outlined in Figure 22.
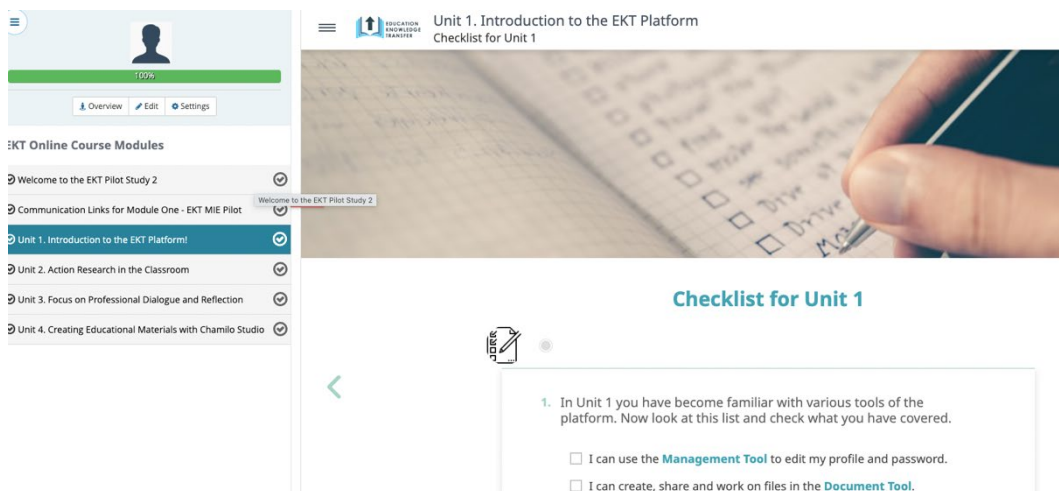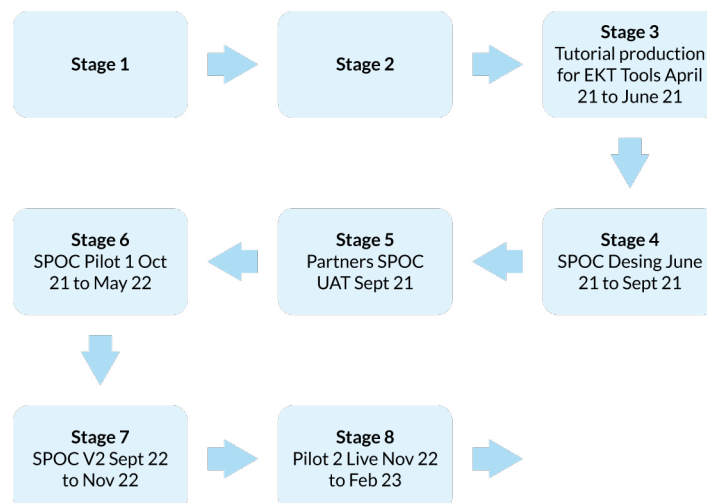
5.5.1. Evaluation Method – SPOC Questionnaire & Focus Group Results

Figure 22: *Levels of Satisfaction with SPOC by Country*

Survey participants were generally satisfied (mean 3.23+) with the small private online course created, however the Austrian participants less so (mean 2.66, dissatisfied). This may be reflective of the early introduction of the platform to the Austrian survey participants, where they may have experienced some technical difficulties logging on to the SPOC and accessing some of the contents therein. Equally, the Irish participants' levels of satisfaction were very positive, which is reflective of their delayed pilot study, which did not occur until November 2022, due to delays in ethical approval in that country. This also meant that the Irish pilot participants were using an improved version of the EKT platform in a post beta format.

Figure 23: *Pilot Participants' Satisfaction with the SPOC*
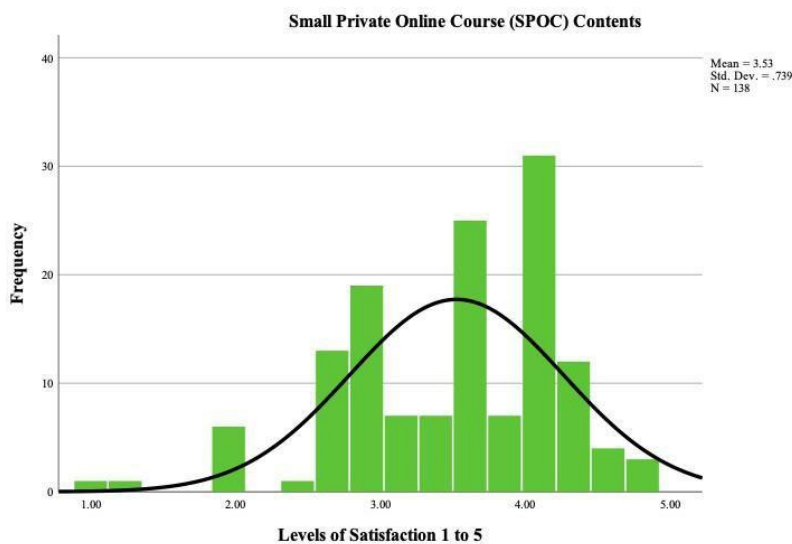
Figure 23 demonstrates a slight positive distribution of questionnaire responses on participants' levels of satisfaction with the SPOC. The mean value is 3.53 and the standard deviation is .739 and, while levels of satisfaction are not very strongly positive, there is still a positive median score in the data collected.

At focus groups held in each of the partner universities, participants commented on the value of the contents in the SPOC online learning materials. Comments from qualitative analysis of users' satisfaction with the SPOC also demonstrate a positive disposition to the contents in the course and most users found the contents 'satisfactory' to 'very satisfactory'. For example, "I thought the course was very interesting, especially as a student teacher", to "it is accessible, optimally very pleasant, easy to navigate, covers many areas" and "the course was informative". In Ireland SPOC contents were found to be "easy to use and relevant topics" and in England, users found the SPOC "very easy to navigate and functional in terms of giving guidance to the user", exactly what the Austrian partners had in mind when creating the contents. This was a very successful work package, and all elements of this work package were found to be timely, useful, relevant and produced to a high standard for the participants.

5.6. Work Package 6

H2 Learning, Ireland were tasked with work package 6, which involved creation of a pilot guide for implementation of the EKT platform in each country, and creation of an overall report on the implementation of the various pilot studies by each university partner. This work package was affected by the inability to conduct pilot studies by any partner institution during the Covid pandemic. However, once the pandemic restrictions were lifted, pilot studies were conducted in all partner universities successfully and H2 Learning achieved their work package requirements.

Figure 24: *Work Package 6*

WP6	Pilot Study (H2)	Achieved
O13	Pilot guide	Yes
O14	Pilot report	Yes

5.6.1. Evaluation Method – Results from each Partner on their Pilot Study

Output 13 was achieved in September 2021 in draft version and the final version was produced in February 2023. A full copy of the Pilot Guide is available for download here. The pilot guide is available in four EU languages and is very useful as an aid when setting up the EKT platform, and describing to users the processes, tasks and responsibilities necessary for successful implementation of the EKT methodology and online platform.

Output 14 details the pilot reports from each of the partner countries on the EKT project. Demographic data on participation rates per country are shown in the diagrams that follow. A copy of the Pilot Report is available here.

Figure 25: *Overall participation numbers in the EKT piloting countries*

Country	Student Teachers Registered	Completed	Academic Coordinators	Academic Mentors	School Mentors
Austria	70	30	1	5	15
Ireland	9	9	1	1	0
Portugal	28	10	1	4	5
Spain	104	104	1	14	104
UK	28	28	1	10	0
Total	**239**	**190**	**5**	**34**	**124**

The EKT platform users were invited to evaluate their experiences of using the EKT platform and the following diagrams summarise the responses of those pilot participants who completed the questionnaires, in each partner institution. Hence, there were 190 pilot participants, and of these, 139 completed questionnaires. The results of these are now presented.

Figure 26: *Number of Questionnaire Participants in each Partner Country*

Pilot Participants per Country

	N	%
Austria	28	20.1%
England	12	8.6%
España-Galicia	78	56.1%
Ireland	12	8.6%
Portugal	8	5.8%
Total	139	100.0%

Figure 27: *Bar Chart Questionnaire Participants per Country*
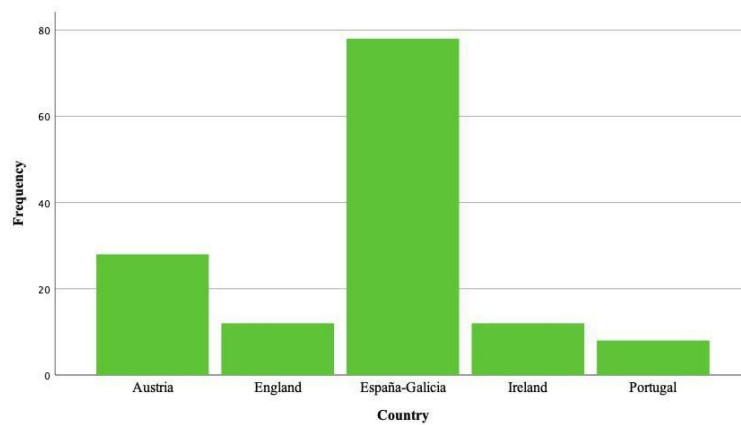
Figure 28: *Gender of Questionnaire Participants in each Country*
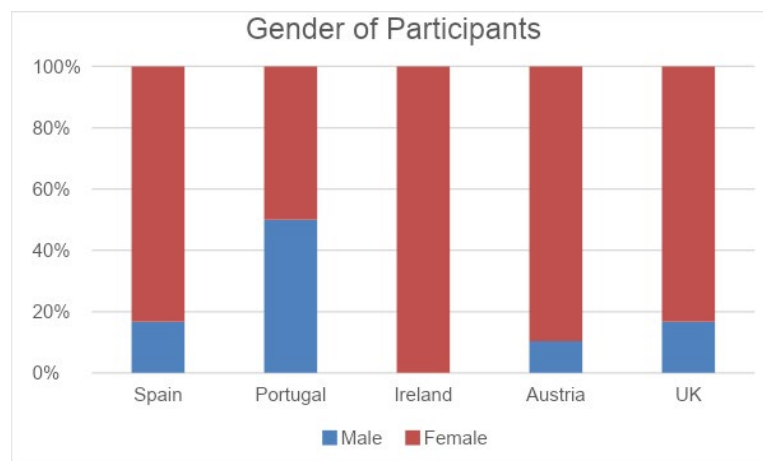
Figure 29: *Role of Questionnaire Participants in each Country*
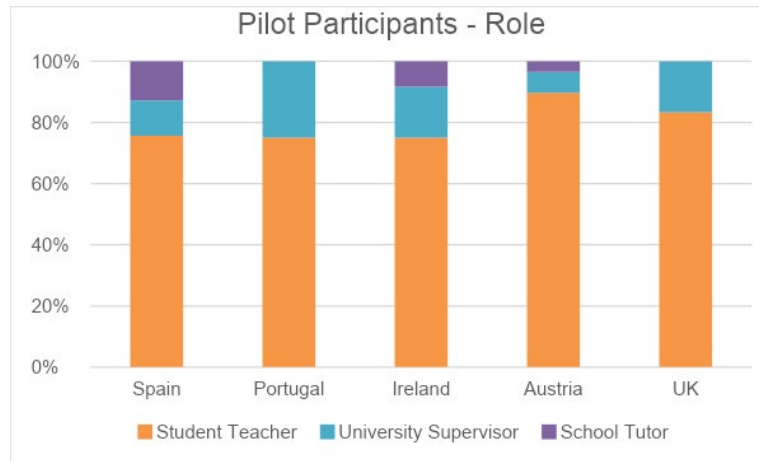
Figure 30: *Age Profile of Questionnaire Participants per Country*
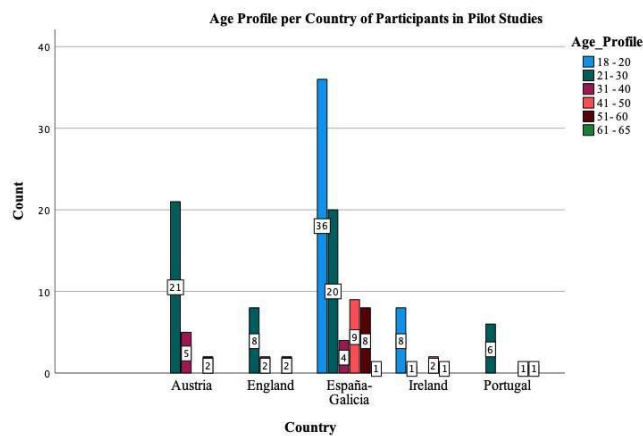
Figure 31: *Roles & Age Profiles of Questionnaire Participants*
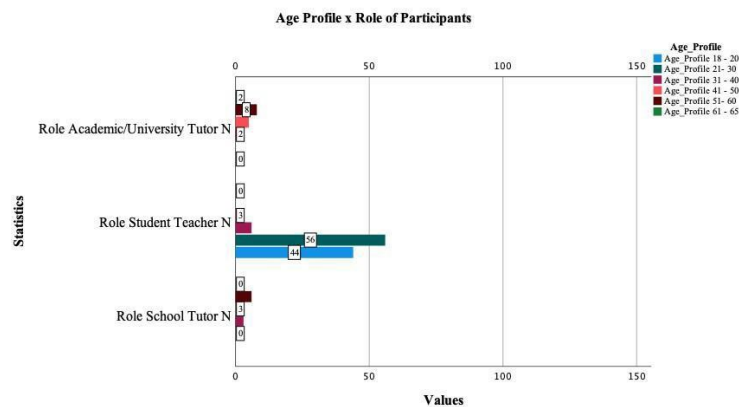
Figure 28 details the gender breakdown of respondents to the questionnaires in each country. Of note is the predominance of female participation across all partner universities. This is not unusual and is reflective of a similar demographic profile of student teachers in many of the partner universities. This is especially evident in the Irish respondents to the questionnaire, who were all female. The age profile of the cohort is of interest, where Spanish and Irish student teachers were younger (18 to 20 years) than the Austrian, English and Portuguese (21 to 30 years) participants.

Figure 31 outlines the age profile of the members of the teaching triad, in each country. The student teacher age profile is young (18 to 30 years) which is expected. Equally, the school tutor age profile ranges from 31 to 40 years of age, as reported by each partner country. Of note, however, is that the age profile of the academic supervisor in all countries, ranges from 41 to 60 years of age. This may be reflective of the availability of academic supervisors, where in Ireland, for example, many supervisors are retired teachers and are available to conduct supervision during the day as they are not working elsewhere. This may be mirrored in other countries and is worth exploring in future research.

The age profile of participants across all partner countries is also of interest when the digital competencies of each teaching triad persona is considered. However, as the data collected was anonymous there was no way to track levels of digital competency by age profile, as individual participant responses could not be identified, and was outside the remit of this evaluation report.

5.7. Work Package 7

Marino Institute of Education (MIE) and the University of Plymouth (PU) led on work package 7. They were tasked with overall evaluation of the EKT project, and laterally evaluation of the transnational partner meetings, as noted in O16. They also had to evaluate users' satisfaction with the products derived from the project, which is the focus of this report (O17). The final requirement was O18 where evaluation of the impact of the EKT proposal on students' professional competencies and is available on the EKT website[18].

5.7.1. Evaluation Methods- Questionnaire Data & Focus Group/Interview Data

Output 15 was achieved in May 2021 in response to feedback from all project partners on the first draft of the evaluation and quality plan, first presented in April 2020 following discussion during the initial transnational meeting in Santiago de Compostela. Amendments made to the initial plan included revision of the evaluation methods and instruments to be used by each partner when they implemented their pilot studies, in their own countries. Furthermore, when Austria conducted their pilot study in 2021, a common questionnaire platform had not been agreed upon. As such the data collected by the Austrian partner during their pilot had to be downloaded from Cumulo, and transposed into MS Excel and uploaded to SPSS so the data could be analysed in the same manner as all other partners. However, this had no impact on the results as statistical analysis was conducted on the full set of data, eventually, in SPSS for all pilot data gathered.

Output 16 has been achieved and six transnational partner meetings have been evaluated; each meeting's pre- and post-meeting SWOT analysis were shared between meetings to aid future planning. A review of all SWOT analyses has been compiled and presented in a separate report. To summarise, while online meetings were useful, the value of the in-person meetings, when they were back on track, is evident in the SWOT analyses feedback from each transnational meeting. For example, during the online meetings throughout 2021 many partners began to feel the project was lagging somewhat, and that all partners were not working to the same capacity across the consortium. Yet, by 2022, the project was moving at pace and all partners were on track with their work package responsibilities.

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[18] www.ektproject.eu/resources

***Figure 32:** Work Package 7*

WP7	Evaluation and quality plan (MIE & PU)	Achieved
O15	Evaluation and quality plan	Yes
O16	Evaluation of transnational meetings	Yes
O17	Evaluation of users satisfaction and assessment of the products derived from the project.	Yes
O18	Evaluation on impact of EKT proposal in student & professional competencies (prospective teachers)	Yes

Given the delayed implementation of pilot studies, this had a tangential effect on the evaluation of the SPOC and EKT Platform by users, for this work package. However, once pilot studies started again in each partner university, evaluation of users' satisfaction with the outputs of the EKT project occurred in a timely manner, alongside self-evaluation of technological competencies. Pilot reports from each of the partner countries were scrutinised for evidence of impact on professional competencies, supplemented by analysis of the panel discussion between students and mentors during the final conference This work package ended in April 2023 once the final transnational partner meeting was complete.

5.8. Work Package 8

Die Berater in Austria led on work package 8 which was focused on exploitation and dissemination of information in relation to the EKT project and included dissemination of the development of the platform and users' satisfaction with it, as well as the production of a variety of dissemination materials Each output was achieved in a timely manner and was dependent on feedback from all partners to the project. This work package ended successfully on 30 April 2023. Some residual publication and conference presentations are still due to occur, and these will be reported on the EKT website when the full reference details are available.

***Figure 33:** Work Package 8*

WP8	Exploitation and dissemination of results (DB)	Achieved
O19	Exploitation and dissemination plan	Yes
O20	Project logo	Yes
O21	Project poster	Yes
O22	Project web site	Yes
O23	Press release/scientific articles	Yes
O24	Presentations in conferences and events at European and wider level	Yes
O25	Handbook for in-school teaching practice (in-school placement) in European Initial Teacher Education.	Yes
O26	EKT national events	Yes
O27	Report on exploitation and dissemination plan	Yes

5.8.1. Evaluation Methods

Output 19 was achieved early in the project and a national and international dissemination plan was devised. A copy of the plan is available on the EKT project website[19].

Output 20 was agreed upon by all partners early in 2020, to ensure subsequent publication and dissemination materials complied with the style and format associated with the project. The logo is reproduced here for ease of reference and is used on all project materials, as a matter of course. All reports are written using the EKT report template, as devised, and all materials published acknowledge the support of the Erasmus+ Programme, through use of the Commission logo, as required.

Figure 34: *EKT Project Logo*

Output 21 was achieved successfully, and the poster template is available to download here[20].

Output 22 required design and development of the EKT project website and it is live and available here www.ektproject.eu. Further, the contents of that website are available in five EU languages. The full details of the EKT Project website are noted in the Introduction to this report, and the website is notable for its ease of navigation.

Output 23 was to achieve dissemination in scientific journals and the following articles have been achieved to date. Some articles are still in press at the time of writing, and further articles are due for publication in 2024, outside the timeline of the project. There were 5 journal articles published during the EKT project timeline.

5.8.2. Journal Articles

Brandão Carvalho, J.A. & Fernández-Morante, C. et al. (2023). *Report on in-school placements needs and possibilities of the technologies* (EKT Output 5). Braga: Cied-University of Minho. *http://dx.doi.org/10.5281/zenodo.7786279*

Bettany, J., Blandon, C., Baer, C., Georgeson, J., Egan, A. and Revyakina, E. (2022) Online and informal support for teaching placements: A case study from one higher education institution in England. *Impact, issue* 14 | Summer 2022

Fernández-Morante, C., Cebreiro-López, B., Rodríguez-Malmierca, M.-J., & Casal-Otero, L. (2021). Adaptive Learning Supported by Learning Analytics for Student Teachers' Personalized Training during in-School Practices. Sustainability, 14(1), 124. MDPI AG. Retrieved from *http://dx.doi.org/10.3390/su14010124*

Leránoz-Iglesias, M. M., Fernández-Morante, C., Cebreiro-López, B., & Abeal-Pereira, C. (2023). Study on the Collaboration between University and Educational Centers Mentors in the Development of the In-School Education Placements in Official University Degrees Qualifying for the Teaching Profession: The Case of the University of Santiago de Compostela. Education Sciences, 13(2), 104. MDPI AG *http://dx.doi.org/10.3390/educsci13020104*

Casal-Otero, L., Catala, A., Fernández-Morante, C. et al. AI literacy in K-12: a systematic literature review. *IJ STEM* Ed 10, 29 (2023). *https://doi.org/10.1186/s40594-023-00418-7*

[19, 20] *https://ektproject.eu/resources/*

Output 24 was to achieve dissemination in European and wider international conference events. There are also two forthcoming presentations near the end of 2023, at BERA (British Educational Research Association) annual conference (September 2023) and SITE (Society of IT in Teacher Education) annual conference in March 2024. There were 8 national and international conference proceedings published during the EKT project timeline.

5.8.3. Conference Proceedings

Egan, A., Revyakina, E., Georgeson, J., Cebreiro López, B., Fernández Morante, C., Latorre Ruiz, E. & Strasser, T. (2021). EKT, a trans-national platform to support school placement. In E. Langran & L. Archambault (Eds.), Proceedings of Society for Information Technology & Teacher Education International Conference (pp. 656-661). Online, United States: Association for the Advancement of Computing in Education (AACE). Retrieved April 3, 2023 from *https://www.learntechlib.org/primary/p/219196/*.

Fernández-Morante, C., Cebreiro, B., Casal-Otero, L., Leránoz-Iglesias, M., Rodríguez-Malmierca, M. J., & Felpeto-Guerrero, A. (noviembre,2022). EKT Una plataforma integral para el soporte de futuros/as docentes. (p.378–380) [Comunicación]. XXV Congreso Internacional EDUTEC 2022, Palma, España. *https://edutec2022.uib.es/libro-de-actas/*

Fernández-Morante, C., Cebreiro, B., Latorre Ruiz, E., e Casal, L., (2022). Las tecnologías emergentes como herramienta de apoyo en el Prácticum de la formación inicial del profesorado. International congress education and knowledge. ICON ISBN: 978-84-19312-37-2

Egan, A., Georgeson, J., Revyakina, E., Strasser, T., Cebreiro, B., Fernandez-Morante, C. e Latorre-Ruiz, E. (2022). EKT, a pilot project exploring the use and impact of a smart technological system to support school placement in five European countries. In E. Langran (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference* (pp. 2167-2172). San Diego, CA, United States: Association for the Advancement of Computing in Education (AACE). Retrieved May 3, 2022 from *https://www.learntechlib.org/primary/p/221048/*

Egan, A., Georgeson, J., Revyakina, E., Fernandez Morante, C., Latorre Ruiz, E., & Strasser, T. (2023). EKT, a project exploring the use and impact of a smart technological system to support school placement in five European countries, a final report. In E.Langran (Ed.), Proceedings of Society for Information Technology & Teacher Education International Conference (pp. 1542 – 1549). New Orleans, LA, United States: Association for the Advancement of Computing in Education (AACE). Retrieved 3 April, 2023 from *https://www.learntechlib.org/p/222030*.

Fernández-Morante, C., Casal-Otero, L., Cebreiro, B., Mareque León, F., Rodríguez Malmierca, M.J. & Felpeto Guerrero, A. (2023). EKT methodology: an open and collaborative strategy to facilitate school placements for future teachers. In . Elizabeth Langran (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference* (pp. 1534-1536). New Orleans, LA, United States: Association for the Advancement of Computing in Education (AACE). Retrieved April 3, 2023 from *https://www.learntechlib.org/primary/p/222028/*.

Felpeto-Guerrero, A., Rodríguez-Malmierca, M.J., Fernández-Morante, C. & Cebreiro-López, B. (2023). Pilot evaluation of the EKT trans-national elearning platform to support in school placement. In Elizabeth Langran (Ed.), *Proceedings of Society for Information Technology & Teacher Education International Conference* (pp. 973-978). New Orleans, LA, United States: Association for the Advancement of Computing in Education (AACE). Retrieved April 3, 2023 from *https://www.learntechlib.org/primary/p/221954/*.

All university partners were also represented at British Educational Research Association in September 2022, and their presentation can be accessed on the BERA website here.

Output 25 was achieved successfully by Die Berater, where the EKT Handbook was created and published near the end of March 2023. The publication was launched at the final international EKT conference in Spain, 15 April 2023. ISBN number for each language version of the EKT Handbook are presented here.

978-3-9519738-0-7	EKT Handbook EN
978-3-9519738-1-4	EKT Handbook ES
978-3-9519738-2-1	EKT Handbook DE
978-3-9519738-3-8	EKT Handbook PT

Output 26 was achieved successfully in all the partner countries, where national events were held once the travel restrictions in each country were lifted. There were 5 National Events, and full reports and photographs from each of these are available on the EKT website[21].

Output 27 – A full and final report on the success of the exploitation and dissemination plan is on the EKT website[22] since 30 April 2023. This was the final requirement of work package 8, and as noted earlier, some publications are due later in 2023 and 2024, depending on the timeline of the various publishers.

[21, 22] *https://ektproject.eu/resources/*

6. OVERALL PROJECT EVALUATION GENERAL COMMENTS & IMPACT

6.1. Project Platform

The EKT project platform is a useful tool for school placement. It is created as an open-source platform, and users are invited to use it once the project has ended. The communication affordances of the EKT Platform were most widely used during the pilot studies, which demonstrated a need for non-Institution-led communication platforms for student teachers. Further, a need to provide a space for communication with all members of the teaching triad was identified during this project. Whereas some users were still reliant on WhatsApp, more were concerned about the ethical implications of using non-EU hosted communication tools. The EKT platform provides this 'safe space' for communication and is a welcome platform for school placement across Europe.

6.2. Pilot Studies in each Country

Pilot studies were conducted in each country, however, the impact of Covid on the availability of participants must be noted in this evaluation report. This interacted with the difference in regulatory regimes in the different countries and the extent to which adding a new platform could comply with these official requirements, meant it can take time for a new piece of technology to find its ecological niche; in the English context, for example, the project revealed the need for a secure place for mentors to share their learning and offer peer support. Elsewhere, differences in approach to ethical approval and restrictions on the involvement of students on assessed courses placed limitations on the range of possible participants. These local variations could not have been anticipated, but the need to accommodate differences between provision in different countries meant that the development phase took longer than expected even after Covid restrictions started to ease. Working transnationally to resolve differences in provision has resulted in an outcome that is more flexible and adaptable to the needs of a wider range of options for placement in initial teacher education.

6.3. Other Factors

This project has taken place during a period of political change and societal challenges, some global (Covid, climate change, responses to the Russian invasion of Ukraine) and some national (the move towards populist government and the surge in nationalism). All these factors and more will impact on education in general and the development of its workforce in particular. This must be borne in mind in the context of the evaluation of users' satisfaction and decisions about the usefulness of the outputs from the project. Both students and staff have been under pressure to complete teaching placements under less-than-optimal conditions, initially because of Covid restrictions and more recently because of the cost-of-living crisis. Stress from anxiety over placements and concerns about workload /future employment are likely to have affected the choices to participate and subsequent evaluation; ease of access, supportive relationships and efficient processes were likely to be valued over complexity, and this is mirrored in the data. Nonetheless the potential of the EKT platform for 'safe spaces' was noted by many participants, and these spaces could offer the opportunities to reflect on impact of societal, national and global challenges to the practice of teaching and the implications for pupils, teachers and communities in general.

7. CONCLUSION & FUTURE WORK

The overall aim of the EKT project was to **transfer knowledge between schools**, HEIs and industry, in the context of designing a platform and associated course to support student teachers on placement. The platform and the course are the 'tangible' outcomes of this transfer of knowledge, and these have been evaluated by the various research instruments reported here. This evaluation has sought to include the less tangible but nonetheless important criteria by which we sought to measure success: whether the EKT products were accessible, ethical, pedagogical, relational and efficient. Results indicate the **EKT products created adhered to these criteria successfully.**

Working across professional and national boundaries to produce a placement platform and a Small Private Online Course has certainly helped to ensure that platform is accessible to a wide range of potential users and sensitive to an extended range of ethical considerations. This has been facilitated by the careful work on the well-received SPOC, which ensures that all users have a gradual introduction to the platform in a way that encapsulates sound pedagogical principles. Across all countries in the project, we have heard much about the demands on staff time and the stress that students are under, and this has motivated both education and industry partners to make the platform as efficient as possible. Working together on a complex project means we have learned a great deal about each other's strengths and specialisms, as well as some of the difficulties that characterise our work. Because the context in which initial teacher education happens is always changing, it is important to work with systems, tools and procedures which are adaptable. This places considerable demands on technological infrastructure and on the skills and aptitudes of all stakeholders, both to explain what is needed and then to turn these requests into a workable solution. During the course of the project, partners developed effective working relationships to seek to improve user satisfaction and the quality of the products.

This EKT Project has been a success for all partners in the consortium, who achieved all outputs required of the initial proposal despite the challenges presented by the pandemic and school and university closures. All project partners look forward to working together again in future EU projects and look forward to adoption of the EKT Platform by interested parties, across Europe.

Project Partners

Universidade do Minho