

# EDUCATIONAL KNOWLEDGE TRANSFER

## 14.

### Pilot Report



## **Project Information**

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# 1. INTRODUCTION

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The EKT piloting was a key activity of the project where five partner universities applied the EKT Methodology, developed materials (SPOC), and the e-learning system (EKT Platform) during in-school placements of student teachers of the **five teacher training institutions involved in the consortium:**

- Pädagogische Hochschule Wien (Austria)
- University of Plymouth (England)
- Marino Institute of Education (Ireland)
- Universidade do Minho (Portugal)
- Universidad de Santiago de Compostela (Spain)

With the support of the pilot coordinator (H2 Learning) and the EKT technical team (coordinated by the Spanish partner CESGA).

The partner teacher training institutions embedded the EKT Methodology, resources and online tools into their existing teaching programmes, and engaged all relevant stakeholders i.e., academic mentors, school mentors, university and school coordinators, and student teachers.

The piloting activities helped to provide crucial information about the methodology, platform, resources, and online training and informed the final design. It enabled project partners to see what worked well for the target audience and which methods and approaches were appropriate for each placement setting in each country. Furthermore, this test phase provided information that enabled decisions regarding the final design and functionality of the EKT learning platform and online tutorials.

## 1.1. EKT Pilot Phases

The EKT piloting process was divided into **three phases:**

- 1.** EKT Pilot Preparation, which included ethics board approvals in each university, recruitment of participants, creation of user accounts and completion of the Small Private Online Course (SPOC).
- 2.** EKT Pilot Implementation, when the pilot participants engaged with the EKT Platform during their school-placement period, tried out its features and functionalities.
- 3.** EKT Post-Pilot Activities, mainly related to the project's evaluation activities in the form of questionnaires, focus groups and interviews.

# 2. PRE-PILOT PREPARATION

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## 2.1. EKT Platform Development

**The EKT platform is an e-learning solution that has been designed to support pre-service teachers during their in-school placement and support and strengthen communication and collaboration between Academic and School Mentors and other actors involved in the school placement programme.**

While many e-learning tools offer general education services like communication, document storage, ePortfolios, and calendars, none specifically support the in-school training process for future teachers. The EKT Platform addresses this gap, **catering to the needs of everyone involved and making it accessible to different institutions**, such as schools and universities. It has been developed by the technical partners of the EKT project in close collaboration with the academic partners who provided inputs to the platform specification and functionality.

The EKT Project partners created a multifaceted e-learning system by combining and adjusting various existing open-source software tools and developed new features to meet the specific needs of the academic partners. Creating this platform was a complex task. It involved finding the right features and tools, adjusting them to work together, and ensuring smooth communication between them. **The result is an informative dashboard for teacher students and their mentors in both academic and school settings, meeting methodological requirements and addressing areas for improvement in teaching practices.** The challenge also involved integrating technology tools from both private providers and open-source developers and organising them into a flexible system of tools and digital resources for training student teachers.

**The user-centred design of the EKT solution makes all the apps available from a unique entry point based on Single Sign On technology, allowing the student, teacher or mentor to access all needed tools together from one single dashboard.** A mobile app complements the EKT Platform, allowing students to communicate with their mentors and report their activities, both online and offline.

## 2.2. EKT Methodology

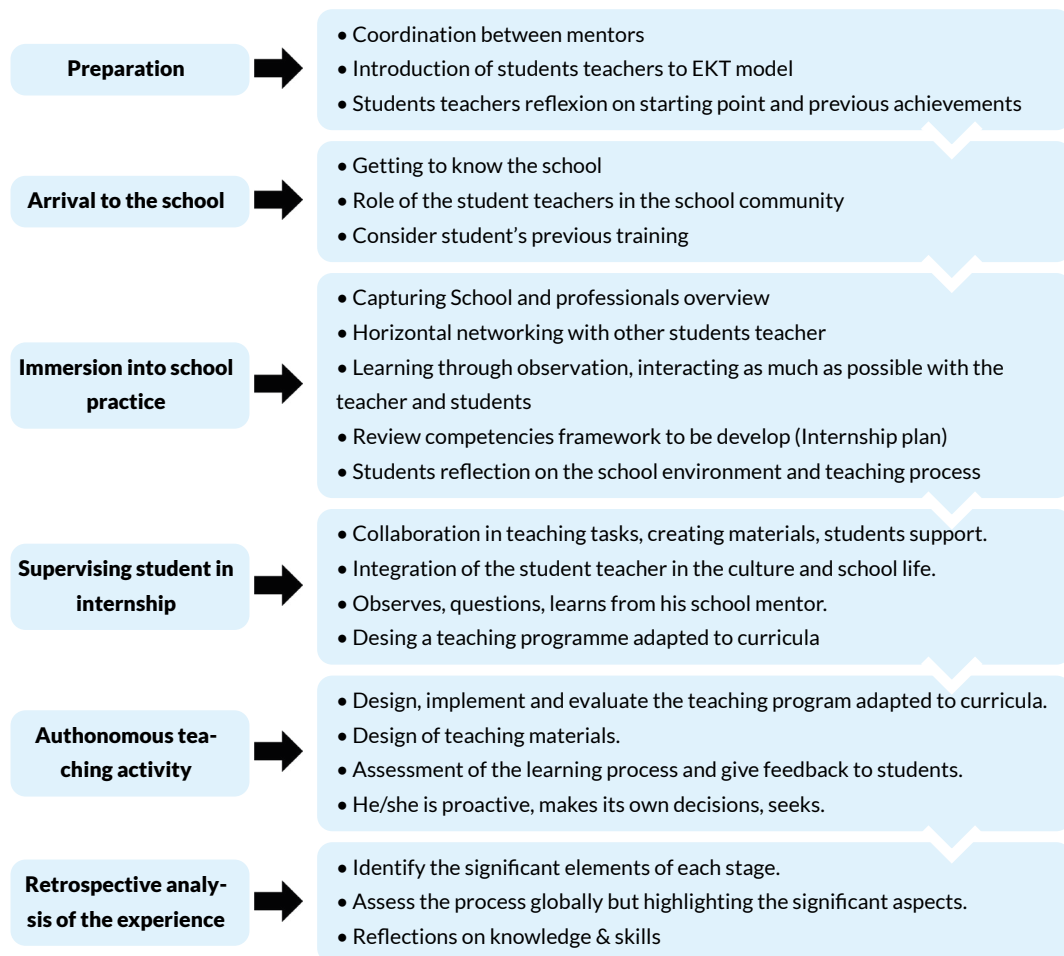
The EKT Methodology was developed to act as the pedagogical and technological framework for the transformation and improvement of the in-school placement process and practices. The methodology has been developed based on the expertise and experience of the project partners but also a needs analysis study that has been carried out with teachers in the participating countries (Austria, Ireland, Portugal, Spain, the UK). **The EKT methodology was developed to:**

- **Provide a shared vision** of the model the teacher we want to train and the role that in-school placement plays in the initial teacher training process;
- **Define the specifications and functionalities** for the design and development of the EKT e-learning system for the in-school placement;
- **Provide a flexible methodological framework** (objectives, sequence, instruments) which, based on the EKT technological system, allows the adaptation of In-school placement strategies of initial training institutions, European participants, innovation and testing of the system.

It therefore does not propose a fixed or single route to follow, but rather provides institutions and those responsible for European In-School placement with a framework (guidance and tools) on the basis of which the two mentors (academic and school) design and negotiate a personalised practice plan for each prospective teacher and implement it with the support of their educational communities.

**The framework consists of 6 content sections.** The first part situates the proposal on the basis of the teacher model that we understand Europe currently requires and the conclusions drawn from the needs study carried out in WP 2 of the project for the improvement of In-School Placements (ISP). It provides a framework of reference teaching competences that allows academic and school mentors to determine together those competences and teaching tasks to be worked on during the In-school placement and to define from there the personalised practice plan for each student.

Figure 1: Stages and sequence of the EKT methodology



**The second part of the framework** aims to help the mentors and mentees participating in the pilot to carry out the enriched In-school placement experience that the EKT project will provide them (sections three to five). The keys to the model are therefore defined, the profiles, functions and roles in the internships of all of them, that is, what is expected of each of them in order to successfully develop the EKT In-school placement model: academic and school in-school placement coordinators, academic and school mentors and student teachers. It also introduces the experience they are going to participate in during the pilot. The sequence of practice is developed in six stages. Each stage has its own objectives and activities and the 16 instruments designed to implement them. It is a flexible proposal that in each context and with each mentee the mentors must adapt and specify in order to carry out the EKT pilot.

The main focus of the EKT Methodology is to provide a process for the Academic Mentor and School Mentor to actively support the Student Teacher throughout their in-school placement. The EKT Methodology is aligned with the different tools and functionalities of the EKT platform. The methodology is designed to assess and strengthen the student's individual and reflective learning.

### 2.3. EKT Online Course (SPOC)

During the pilot phases, each partner introduced the project to their mentors and students through the EKT Online Course. **The EKT Online Course is a Small Private Open Course (SPOC) designed to familiarize participants with the EKT Platform and enhance the school placement experience using the EKT methodology.** The course focuses on three key areas:

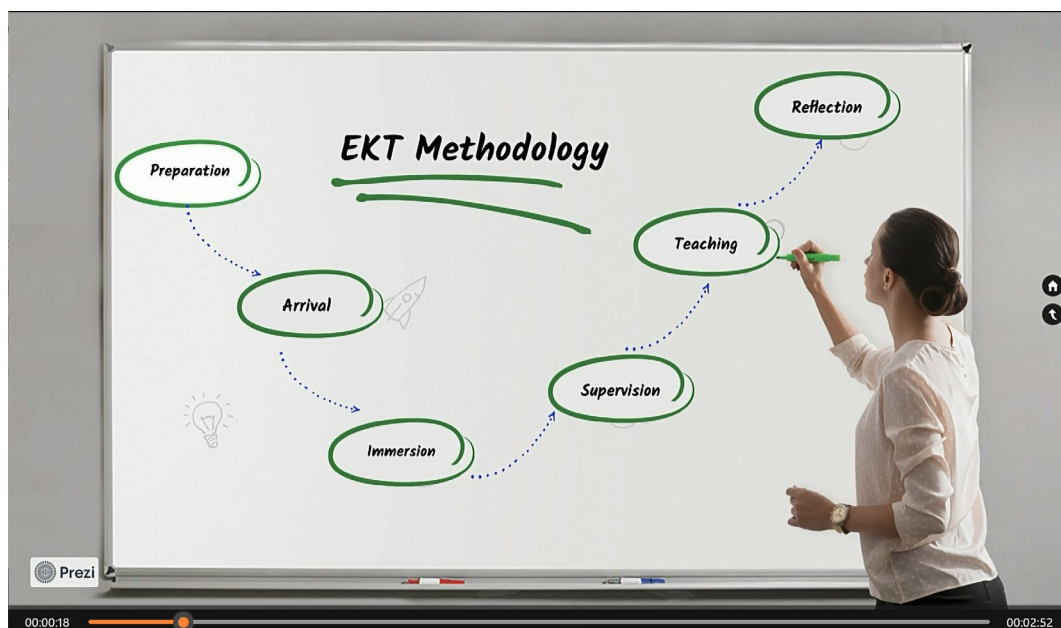
- Collaboration between Academic Mentors and school cooperative teachers
- Individualized follow-up of students during school placement
- Reflective practice of Student Teachers.

Through a mini self-study Action Research approach, participants will reflect on their practice and engage in discussions with others.

The SPOC has been designed to familiarise and engage mentors and students with the EKT platform just before the in-school placement takes place. **The chosen approach is a mini self-study Action Research (action-oriented reflection) with a focus is on the question: 'How I can improve my practice?'** The participants go through a structured process of preparation and reflection for their school placement.

The tasks in the course are structured around the questions that aim to trigger participants' reflection and to engage the participants in discussions and dialogue with the others. Key outputs for students include a collaborative document outlining expectations for in-school placement and an Action Research Plan developed with the support of their academic mentors. Students then implement their Action Research plan during the school placement and produce an Action Research Report at the end of the process.

Figure 2: SPOC video introducing the EKT Methodology



# 3. EKT PILOT IMPLEMENTATION OVERVIEW

## 3.1. EKT Pilot Cycles

The EKT piloting was carried out in two cycles, with the first pilot in the academic year 2021/2022 and the second running in 2022/2023. **The pilot implementation approach was flexible, as each piloting partner designed the pilot to fit in different teacher education curricula and approaches during in-school placement.** Pilots in each country were therefore unique in terms of students' and mentors' profiles, duration and the way the EKT Platform was merged with the institutions' own Learning Management System. Table 1 below outlines the timetable of implemented EKT piloting as coordinated with in-school placement periods.

*Table 1: EKT Piloting Activities Timeline.*

Activities	Austria	Spain	Ireland	Portugal	UK
<b>Pre-Pilot Content Customisation</b>	September 2021	<b>First cycle</b> Sept 2021 - Jan 2022 Feb - March 2022 <b>Second cycle</b> Sept - Oct 2022	October 2021	October 2022	November 2019 -November 2021
<b>Participant Recruitment</b>	June - Oct 2021	<b>First cycle</b> January 2022 April - May 2022 <b>Second cycle</b> Sept - Oct 2022	September - November 2022	November 2022	November 2021 February 2023
<b>Pilot Start Date</b>	Nov 2021 -January 2022	<b>First cycle</b> January - May 2022 March - May 2022 <b>Second cycle</b> Oct 2022 - Feb 2023	November 2022	November 2022	October 2022 (Mentors) Dec 2022 (students)
<b>Introductory Sessions with participating teachers</b>	October 2021	<b>First cycle</b> Jan - Feb 2022 <b>Second cycle</b> Oct - Nov 2022	November 2022	November 2022	n/a
<b>Course end date</b>	Nov 2021 -January 2022	<b>First cycle</b> May 2022 <b>Second cycle</b> February 2023	November 2022	March 2023	March 2023



## 3.2. Pilot Participation

The project was considerably impacted by the outbreak of the COVID-19 pandemic, and the partners made significant efforts to roll out the pilot implementation activities and make necessary adjustments. For the first two years of the project, pre-service teachers or mentors were not allowed in schools until restrictions were lifted. This effected planned piloting activities in terms of numbers of students participating and the amount of time available for piloting activities as there had to coincide with the in-school placement periods. It was always intended that the majority of the piloting activity would take place in Spain.

**Table 2:** Overall participation numbers in the EKT piloting countries

Country	Student Teachers		Academic Coordinators	Academic Mentors	School Mentors
	Registered	Completed			
Austria	70	30	1	5	15
Ireland	9	9	1	1	0
Portugal	28	19	1	4	5
Spain	104	104	1	14	104
UK	28	28	1	10	0
<b>Total</b>	<b>239</b>	<b>190</b>	<b>5</b>	<b>34</b>	<b>124</b>

As a result, in some countries, the number of teachers and mentors involved was lower than originally anticipated. However, some valuable feedback and lessons were derived from all pilot studies. Table 2 above provides the overall participation numbers as reported by the piloting partners.

## 3.3. Summary of EKT Piloting Activities

### 3.3.1. Austria

In **Austria, the first pilot phase was conducted at the University College of Teacher Education Vienna (PHW) from September to January 2022**, with five groups participating at different times during this period (70 student teachers, 15 school mentors and 5 academic mentors).

The training phase (SPOC) was run together with the placement due to the contextual arrangements; the piloting phase had different periods of time depending on groups and incorporated the preparation phase, immersion into the placement, and analysis of the experience following the EKT Methodology.

**Most school placements were two weeks in duration, followed by reflective seminars with academic mentors.** The e-learning system was used during the entire piloting phase: for coordination between academic and school mentors, communication with student teachers (preparation for in-school placement), reflections on six observations, teaching trials, reflection (peer reflection and with school mentors during immersion into practicum phase) in school, and post-placement period – reflective seminars happening between student teachers and academic mentors.

In the second pilot carried out in autumn 2022, the same student teachers were asked to reflect on the changes made to the EKT Platform. Since PHW was the first organisation to pilot the EKT Platform they had to deal with certain technical problems which largely were solved by the time the other partners started their piloting phase.

### 3.3.2. Ireland

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In **Ireland**, the piloting partner Marino Institute of Education conducted their pilot in November 2022. Nine student teachers and one university tutor participated in the study, and **the initial analysis of qualitative comments in the questionnaire noted the need for a mobile app version of the EKT Platform**

**Participants were impressed by the contents of the SPOC course and found it was presented in an informative, accessible, and interactive way.** They were also happy that all materials relating to placement could be found “in one place” but would have preferred if the platform were integrated with college tools they already used, such as Moodle and MS Teams.

All participants commented on the communication tools on the EKT Platform, where it was noted that “chats can occur with staff and each other to help and support our peers too”, and **participants liked that they could “divide their personal and professional life using the platform”**, instead of using WhatsApp and other social media tools to communicate with each other, during placement.

### 3.3.3. England

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In **England**, the pilot implementation faced many internal and external challenges. School and academic mentors had often lacked digital capital and (paid) time to build digital skills and know-how and recent innovations by the university had revised placement systems to make them easier to use.

The EKT pilot therefore focused on student and mentor communication needs. In the first pilot, academic mentors and students were involved in direct engagement on the EKT platform. Then, in the second phase, ten mentors were observed during professional development, interviewed and invited to engage with the EKT Platform as potential users.

Although student teachers had been reluctant to trial the EKT platform on placement as they considered the existing university tools (e.g. One Drive, Moodle, EPad, email) to be sufficient, they readily discussed their placement experiences and communication needs in Phases 1 and 2. In addition, doctoral students evaluated the user experience of the EKT platform and activities.

Overall, **the pilot has highlighted a real need in the organisation to identify time, space, and resources for connection within as well as between groups - particularly for school-based mentors. The student teachers were looking for safe spaces to support each other during placement and afterwards to debrief.** Following the second pilot cycle, the organisation is investigating the issue of peer support and mentoring as boundary crossing. During the limitations imposed by COVID-19 and other sectoral challenges, the mentor’s role as ‘boundary crosser’ linked the realities of placement practice, and the personal and professional needs of student teachers with the regulatory and academic concerns of the HEI.

**Mentors were operating between schools, students, and university to make sure the placement process worked for everyone under difficult circumstances.** They needed to communicate effectively and efficiently across the triad, but also felt the need for a space (both real and virtual) to develop their own community of practice for advice and professional development.

### 3.3.4. Portugal

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In **Portugal**, the pilot study took place between January and March 2023 and initially involved 19 students from four different programmes (Portuguese Language, Biology/Geology, Mathematics and Informatics), eight placement schools and four university mentors. **Due to various reasons, students' participation dropped and only 10 students attended the onboarding meeting and further focus group sessions.**

**The reduced participation was mainly due to the timing of the pilot study.** In Portugal, ISP takes place throughout the whole school year and implies, in the first phase, the observation of the context and the preparation of a teaching project, and, in the second phase, the implementation of the project in the school mentor's classes. The EKT pilot occurred in the transition from the first to the second phase; thus, being rather busy, students had little time to explore the platform.

**Moreover, the way the work involving academic mentors and students is established, with regular face-to-face meetings, created the feeling that the platform might be redundant at the moment.** Also, some concerns were raised over the use of the ePortfolio tool as students felt there was little privacy in their communication with mentors, as it involved critical analyses focused on students' work and materials.

Although five school tutors were enrolled in the platform, it was almost impossible to involve them. This is because they are very busy in their activities as teachers and their participation in ISP is voluntary, which means extra work from which they get no benefits.

### 3.3.5. Spain

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In **Spain**, the first EKT pilot was run by Universidad de Santiago de Compostela from January to May 2022 and involved three groups of students from the final year. 23 student teachers and 7 academic mentors were recruited for the pilot, but 14 students completed the process. The involvement of school mentors was challenging.

**The second pilot was carried out with new student groups between October 2022 and February 2023, 81 student teachers, 11 academic mentors and 69 school mentors decided to join.** The higher interest among school mentors in this pilot cycle is worth noting, yet not all were actively participating in the platform due to lack of time. In both pilot cycles, there was a high level of involvement from the academic mentors and in the second pilot from a very active group of students.

**The use of the communication functionalities of the platform and the portfolio was significantly higher in the second pilot. Compared to the first pilot last year, users recognised a positive evolution of the EKT tool and identified further issues to improve in terms of usability and navigation that were considered in the final version of the system, which led to improvements in the user experience.**

There is also a need to address the integration of the SPOC into the system in terms of data and activity recording. The SPOC was re-designed with a new tool to make it interoperable in the EKT System and to record students' activities and progress in the learning analytics functionality.

# 4. EKT PILOT REPORTS

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## 4.1. Pädagogische Hochschule Wien (PHWien)

### 4.1.1. Background

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University College of Teacher Education Vienna (PHWien) is one of the biggest teacher education institutions in Austria, and offers a program of primary, secondary, vocational and special needs teacher education as well as CPD courses. The University College of Teacher Education Vienna puts great effort into making the teaching profession its focal point. Education, training and continuing professional development, in conjunction with research, ensure that the demands of the teaching profession and other related educational professional fields are met in a sustained manner. There is also a successful cooperation and well-developed networks with all types of schools in the educational region. The PHWien Team in the EKT Project was led by Dr Thomas Strasser.

**This report presents findings from Pilot 1 of the EKT project, conducted in Austria, University College of Teacher Education Vienna in the winter semester 2021-2022.** It was the main goal of this pilot phase to test (a) the EKT e-learning system/platform developed within the EKT project to support in-school placement at its different phases, and (b) the materials developed, i.e. three modules of the EKT Small Private Online Course, to introduce the key actors of in-school placement (student teachers, academic mentors and school mentors) to the EKT methodology and the EKT e-learning system tools, and engage the actors in communication, reflection and cooperation with each other.

**The evaluation of this first pilot followed multiple objectives.** Centrally, there are two research questions to be answered by the evaluation over the project, one about the feasibility and usefulness of the EKT e-learning system tools and materials, and the second one about their pedagogical quality and effectiveness. Furthermore, the first pilot followed the main purpose of contributing to the ongoing development of materials, and to identify the potential for improvement. **An emphasis was put on qualitative input to inform the iteration of the design, and the quantitative analysis of the EKT online course with the use technological self-efficacy statements (Egan et al., 2019) to see how the participants evaluate their ability to use the EKT e-learning system.**

For the evaluation of Pilot 1, the developed materials and e-learning tools, a mixed methods approach was applied, including an online questionnaire for the student teachers participating in the pilot (n=70), academic mentors (n=5), and school mentors (n=15); a focus group interview with student teachers participating in the pilot (n=7) and individual interviews with academic mentors (n=5); and an observation and analysis of 'open' virtual space through Community of Inquiry Framework (Garrison et al., 2010). **Overall, the evaluation revealed several confirmative conclusions, based on the outlined evaluation objectives.**

With regards to the research questions, **evidence was found of a good feasibility and usefulness of the EKT e-learning system and materials**; e.g., study participants found the EKT platform practical for in-school placement and easy to use; the tasks for action-oriented reflection useful for the in-school placement and further study; the instructional design principles were well-received; and the methodological versatility is a key feature of the EKT platform. A number of constraining factors have been named, e.g. existing tools in use, 'traditional' ways of practice, time issues. Furthermore, there is data pointing to a perceived pedagogical quality and effectiveness of the online course and the possibilities for communication and reflection granted with the EKT tools; e.g., the student teachers in focus groups emphasized the value of peer learning and communication in the chat; and academic mentors highlighted the value of a self-study action research and the course tasks for reflection, of the opportunity of bringing the school mentors into the platform and possibilities for international exchanges of experiences. In terms of the aspired contribution to the development of the EKT platform and materials, the evaluation revealed a number of facets which deserve further attention, and suggestions could be derived which will inform the ongoing iterative development process, e.g. with regards to language, instructions, contents, onboarding process on the conceptual side; and work on navigation coherence on the technical side. Based on the experiences made in Pilot 1, there can be some adjustments to meet the circumstances and requirements of Pilot 2.

#### 4.1.2. Evaluation Objectives

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The evaluation of the in the EKT project developed materials (SPOC), methodology and the use of the e-learning system aims to answer the following **two research questions**:

1. **Feasibility and usefulness of the materials and EKT learning tools:** How applicable are the SPOC modules, the EKT methodology and the EKT e-learning system? How is their usefulness perceived? How are the participants ready to use the technological solutions?
2. **(Pedagogical) quality and effectiveness of the materials, EKT methodology and EKT system:** In how far did the course modules and EKT methodology have an impact on student teachers' perceived knowledge? What impact did the materials and use of the EKT e-learning system have on in-school placement?

The EKT pilot phase 1 was conducted in the University College of Teacher Education, Vienna (further PHW) from 30th September 2021 to 31st January 2022 with five groups participating at different times during this period. This report focuses on the evaluation of the EKT SPOC, the use of e-learning system and EKT the methodology at PHW. The evaluation of Pilot 1 was primarily intended to contribute to the ongoing process of iterative improvement of the SPOC materials and the EKT e-learning system. Hence, an overall emphasis was put on **acquiring insights into the perceptions of participants in Pilot 1, and to gather evidence of problems and potential improvements**.

The differing implementation approaches for Pilot 1 taken by the partner universities is reflected in the differing evaluation approach in PHW – one survey and interviews at the end of the piloting period and ongoing observation of 'open' virtual space. The approach underlines the importance of the **focus group and individual interviews to gain in-depth qualitative feedback** as part of the overall evaluation methodology. Universities have different flexibilities to be able to pilot the EKT methodology and e-learning system within short time frames, to fit in with different teacher education curriculums and approaches to student teacher placements in schools. Piloting was offered as a flexible framework for each university to apply to their own situations.

### 4.1.3. Pilot 1 Implementation Approach at PHW

The EKT pilot phase 1 was conducted at PHW from 30th September 2021 to 31st January 2022 with five groups participating at different times during this period. The pilot phase started with an onboarding meeting with academic mentors/tutors during which the key objectives of the EKT project and the pilot plans were shared. The meeting was followed by group meetings with academic mentors, student teachers, and school mentors (if possible) with the aim to introduce the EKT project, e-learning system, training and implementation plan. Table 1 shows the detailed description of the piloting groups and their various timelines. The training phase (SPOC) was run together with the placement due to the contextual arrangements; the piloting phase had different periods of time depending on groups and incorporated the preparation phase, immersion into practicum, and analysis of the experience following the EKT methodology (WP3). Most school placements (preparation and immersion into practicum phases) were two weeks in duration followed by reflective seminars with academic mentors. The e-learning system was to be used during the entire piloting phase: for coordination between academic and school mentors, communication with student teachers (preparation for in-school placement), for reflections on observations, teaching trials, reflection (peer reflection and with school mentors during immersion into practicum phase) in school, and post-placement period – reflective seminars happening between student teachers and academic mentors.

The SPOC (training phase) aimed to **engage the student teachers, academic and school mentors in:**

1. Using the platform during the described phases
2. Communicating about relevant issues, e.G. Expectations for in-school placement
3. Reflecting on their in-school experience through critical action-oriented reflection (mini action research)

**Table 3: Pilot Phase 1 at PHW**

Activity	October 2021	November 2021		December 2021	January 2022	
<b>Pilot Preparation</b> Onboarding meetings and setting up the groups						
<b>Piloting Group 1</b> (SNE group; four student teachers, one school mentor and one academic mentor)		2 weeks of in-school placement (one week was cancelled due to Covid-19 factor - classes were in quarantine)		Reflective seminars		
<b>Piloting Group 2</b> (primary, 14 student teachers; 3 school mentors)		Two weeks of placement	Reflective seminars			
<b>Piloting Group 3</b> (Vocational school; three small groups of five student teachers, one school mentor in each group)	October 11th - December 23rd - placement; presence once a week in school				Reflective seminars	
<b>Piloting Group 4</b> (primary; 13 student teachers; 5 school mentors; Bachelor, 4th Year)					Two weeks of placement	Reflective seminars
<b>Piloting Group 5</b> (primary; 15 student teachers, no school mentors; Bachelor, 2nd Year)					Two weeks of placement	Reflective seminars

#### 4.1.4. Pilot 1 Evaluation Methodology at PHW

The evaluation follows a mixed methods approach and combines several instruments in Pilot 1 phase to collect data. Methods include qualitative and quantitative surveys, focus group interviews, and observation of the 'open' virtual space. The following instruments and participants were involved:

*Table 4: Evaluation Methodology*

Instrument	Target Group	Number of Participants	Appendix
<b>EKT online course survey</b>	Student teachers Academic mentors School mentors	n= 26 n=2 n=1	A (survey)
<b>Focus Group</b>	Student teachers	n=7	B (Interview questions)
<b>Individual interviews</b>	Academic mentors	n=5	B (Interview questions)
<b>Observation of 'open' virtual space</b>	SPOC Unit 1, 2 and 3 chats	Five group chats	C (Units Challenge questions)

The EKT online course survey was implemented as a post-test. Participation in the survey was voluntary. Its main priority was to receive feedback on the online course and the use of e- learning system. The survey consisted of four parts:

- **Part I** collected demographic data;
- **Part II** gathered feedback on and subjective assessment of certain aspects of the EKT on-line course;
- **Part III** included statements from a self-efficacy questionnaire ("I am able to...");
- **Part IV** included open-ended questions to explore the areas for improvement of the EKT online course and e- learning system tools.

The focus groups with student teachers and individual interviews with academic mentors primarily served to gather evidence of the aspects as defined by the research questions, to systematically identify potential for improvement of the EKT e-learning system and materials developed; and gather perceived experiences of the e-learning system. The interviews were conducted during online evaluation sessions in January and February 2022.

Finally, observation and analysis of the 'open' virtual space were conducted to explore (pedagogical) quality and effectiveness of the materials, and their impact on students' peer learning, their 'perceived' knowledge, and professional development. **The notion of 'peer learning' and 'critical reflection' has been crucial to the EKT project** and seen as important for continuous professional development and enhancement of pedagogical content knowledge. Observation and analysis of the virtual space (public forums) had the priority to explore if the educational experience of a collaborative communication process led by challenge questions on the platform would lead to constructing meaningful and worthwhile knowledge. For this, the model of 'Community of Inquiry' (Garrison, Anderson and Archer, 2000) was adopted. The model assumes that learning occurs within the Community through the interaction of three core elements that includes cognitive presence, teaching presence, and social presence. For the analysis of the virtual space, the focus lies on the **kind and degree of learning, support and reflection occurred on the EKT platform as guided by the SPOC challenge questions**. The model and its indicators proved to be useful to explore the impact of the EKT materials on student teachers' experience and learning during the piloting phase of the EKT project.

#### 4.1.5. Feedback from the EKT Survey

For an appropriate assessment of the survey results, it needs to be pointed out that the number of responses (26 student teachers, 2 academic mentors and 1 school mentor) is not high, particularly among school mentors. Hence, **the results are not representative for the entire population of the participants**. The link to the EKT survey was integrated into the online course and sent to academic mentors for further spreading. However, it was not done as the obligatory post-test, nor included into the last session. The low number of responses and the composition of the survey participant group restrict the informative value of the data at hand. Furthermore, the scale from 1 to 5 could be confusing for the participants, and a scale of competency from beginner to expert could be clearer to understand the level of confidence in using the EKT platform.

Against the background of these restrictions, the data suggest that the participants were able to use the EKT platform and its tools with moderate confidence. However, better structured instructions around the Portfolio Tool in particular is required. The survey responses also suggest a number of areas for improvement. They are summoned in Table 3.

**Table 5:** Areas for improvement (based on the EKT survey)

<b>EKT Course</b>	<b>Online Course Contents</b>	Relevance of materials: closer to the placement needs.
	<b>Online Course Communication</b>	The expectation that communication in chats will be facilitated by mentors was not fulfilled; communication could be fostered by specially assigned moderators.
	<b>Online Course Instruction</b>	German language in tutorial videos; Simpler instructions Easier navigation
<b>EKT Tools/Platform</b>	<b>Overall EKT Platform</b>	The platform functionality was practical and helpful for the placement, but there are already a lot of existing tools with the similar functionalities; Work on design could be suggested – easier navigation, fewer steps to get to the tool one needs.
	<b>Calendar Tool</b>	Ease to use
	<b>Document Tool</b>	More instruction could be given, or folders could be pre-created
	<b>Communication Tool</b>	Widely used but video conference tool didn't work
	<b>Portfolio Tool</b>	More instruction is needed

The survey participants' suggestions for improvement show a strong focus on the clarity and easiness of instructions, language and structure. Obviously, the participants would like to see improvements in this field, which should therefore be considered in detail for future versions of the online course and EKT e-learning system. The responses also suggest that the user experience could be improved in terms of user-friendliness and navigation coherence.



#### 4.1.6. Conclusions and Remarks

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As described in the beginning, the EKT evaluation process aims to answer two research questions, which are about feasibility and usefulness of the EKT e-learning system and materials, and about their pedagogical quality and effectiveness. Furthermore, it was the main goal of Pilot 1 to identify the potential for improvement of the materials and to facilitate and support the ongoing material development. Furthermore, there are conclusions to be drawn regarding the evaluation process.

##### **Research questions 1.** *Feasibility and usefulness of the EKT e-learning system and materials*

The Pilot 1 evaluation in PHW reveals that student teachers and academic mentors experienced the EKT platform and materials as useful, and the course as well-structured. Instructional design principles within the context of in-school placement were well received. This position is expressed in the interviews and focus groups. It was also recognized that methodological versatility and aim to engage all the key actors on the platform is a key feature of the EKT platform.

However, there are a number of factors that limit the feasibility of the EKT e-learning system in particular. They are the existing tools in use, and existing practices in place. The EKT platform does not necessarily provide any extra features or tools that other state-of-the-art learning systems do not have. Apart from that, the use of the EKT platform was hindered by several technical issues (registration emails, password change, the videoconference tool). The findings also suggest a number of areas for improvement for the e-learning system and the online course that aims to train the participants in the EKT methodology and e-learning platform.

##### **Research question 2.** *(Pedagogical) quality and effectiveness of the EKT materials*

According to the data of student teachers and academic mentors in the study, the course materials had a positive impact on the student teachers' perceived knowledge. E.g., the student teachers described that they got to know each other better thanks to the EKT platform, learned to talk and reflect about issues arising during the in-school placement. Academic mentors emphasized that student teachers benefited from tasks aimed at fostering the action-oriented reflection and that the EKT platform had the potential of fostering critical reflection and communication by including the school mentors into the communication channel.

##### **Potential for improvement**

The evaluation revealed a number of aspects which can be improved in the EKT platform and online course for the upcoming pilot. Examples for such potential improvements relate e.g., to the online course instructions, language; facilitation of communication and reflection, onboarding process, and ways of institutionalizing collaborative, and also written reflective practice to support peer learning and inquiry into teaching (see points 3.7; 4.4; and 5.3 for more detail).

The PHW is planning to design a blueprint/template based on Pilot 1, taking the EKT ideas, structures, tasks, sequences, discursive threads and transferring these to the platform-in-use at PHW as a template.

## 4.2. Marino Institute of Education (MIE)

### 4.2.1. Background

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Marino Institute of Education (MIE) is a teaching, learning and research community committed to **promoting inclusion and excellence in education**. We have a **long and proud involvement with education, specifically initial teacher education (ITE)**, dating back over 100 years.

In the last decade, the academic mission and scope of MIE's activity has been re-envisioned to encompass a deeper understanding of education in and beyond the classroom, to incorporate the continuum of teacher education and the education of specialist education practitioners at early years, primary and further education levels. This is allied with a commitment to education studies encompassing non-traditional education settings and the wider education environment in a pluralist context.

The EKT Project in MIE was led by Dr Alison Egan, Director of IT & eLearning and she worked with colleagues in school placement and special education departments during the three-year project. Her work with Miriam Colum, Head of School of Special Education, was relevant during the full pilot held in November 2022.

### 4.2.2. Pilot Implementation Approach at MIE

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The Irish project partners conducted their pilot study in the final year of the EKT Project. This was due to several factors which impacted on the timeline for rollout and evaluation of the EKT platform to Bachelor of Education students in MIE.

### 4.2.3. Pre-Pilot Activities

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For the first two years of the EKT project few, if any, school placement blocks occurred in Ireland. This was due to the Covid 19 pandemic, and no pre-service teachers were allowed in schools until restrictions were lifted. However, this period of hiatus was used to ensure the ethical approval for the EKT project was sought, and that when students went back into schools, MIE were well placed to evaluate the EKT platform.

School placement is a particularly stressful time for students, and the Marino Ethics Review Committee (MERC) refused the initial research application as school placement is a core examinable assessment point in the B.Ed. course. Furthermore, when school placement eventually happened students were under immense pressure.

In conjunction with the acting head of school placement at the time (Miriam Colum, EKT academic mentor) other non-assessed placement blocks and student cohorts were considered for the Irish pilot. On review of the MIE academic year, a one-week block of Special Education placement was identified as a non-examinable block that might be appropriate for rollout of the EKT Platform. B.Ed. 3 students must complete this block in November, of their third academic year. Miriam, in her role as head of the special education department, was also a lecturer on the B.Ed. 3 course, and could influence those students to participate in the study during that non-assessed special education block.

### 4.2.4. Pilot Activities

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The project lead (Alison Egan) went back to the Marino Ethics Review Committee (MERC) with this suggested proposal and the research application was finally approved in September 2022. Students were recruited via an email request with a MS Form to consent to the research by Alison to their student email accounts. Student participants were enrolled on the EKT platform during the last week in October 2022, in time for their special education placement week which commenced on 7 November 2022.

Miriam Colum announced details of the EKT platform at her lectures in the week prior to their Special Education placement block and demonstrated the tool to students. This was to ensure a higher rate of participation by the 3rd year students. Miriam Colum was enrolled as college tutor on the EKT platform, and she led some discussions and created some prompt questions to ensure students could participate in the pilot study and could use the full suite of EKT platform tools. Alison Egan guided the students through the SPOC and demonstrated how to navigate the platform to the pilot participants in a live (online) introductory session held on 1 November. Finally, 9 students participated and 1 academic mentor during their Special Education placement block that began on 7 November 2023 (N=10).

While short in duration, student participants did get onto the platform successfully and managed to conduct peer to peer conversations mediated through EKT, throughout their special education placement block. When students had finished their placement, the evaluation questionnaire was sent to participants, via email, and their feedback sought on their perceived usefulness of the EKT platform. This questionnaire forms the basis of a review of participants' technological self-efficacy using the platform. Participants were also invited to participate in a follow up focus group, held on 17 January 2023, in person. This focus group was conducted over a luncheon event, and 6 participants attended.

#### 4.2.5. Post Pilot Activities

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While a small number of participants, their feedback on the tool has been germane to the ongoing development of the EKT Platform, and their feedback has also formed the basis of conference papers disseminated in 2023, at the Society for IT in Teacher Education international conference held in New Orleans, in March.

#### 4.2.6. Pilot Participants

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There were 9 third year Bachelor of Education (B.Ed.) students and 1 academic mentor who were involved in the Irish pilot study (N=10). All participants completed the questionnaire on their experiences of use of the tool during their Special Education placement block. A subset of the original n = 9 student participants (n = 6) attended a follow up 'focus group' meeting in January 2023, to listen to their qualitative feedback about their experience using the EKT platform. The academic mentor was invited to review her participation in the project, and this interview was held in March 2023.

#### 4.2.7. Conclusions and Remarks

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The pilot study in MIE had to be conducted in an innovative manner outside the usual school placement blocks, and this **demonstrated the relevance of the EKT platform for shorter types of in-school placement**. In the Irish instance, special education is not examined and therefore students 'perceived usefulness' of the tool was a more fluid experience, as they were not under pressure to complete certain placement criteria, rather to just experience the tool and try to use elements of it, they found useful, during their time in schools.

The 10 pilot participants were impressed with the contents of the SPOC course, and found it was presented in an informative, accessible, and interactive way. They were also happy that **all materials relating to placement could be found in 'one place' and on one platform**.

All participants commented on the 'communication' tools on the EKT platform, where it was noted that 'chats can occur with staff and each other to help and support our peers too' and participants liked that they could 'divide their personal and professional life using the platform' instead of using WhatsApp and other social media tools to communicate with each other, during placement. This was the single biggest win of the platform for all participants in the pilot study and demonstrates the need for communication between all partners in the placement triad, the placement teacher, the student, and the academic mentor.

The EKT platform has demonstrated that **communication during placement is a key factor** for all members of the placement triad, and any technologies that can support this are widely welcomed.

Conducting the pilot study in Ireland was hampered by the impact of Covid-19 on school placement and school closures more generally across all schools and colleges. Equally, the delay on receiving ethical approval until the final year of the project, also hampered progress on the pilot study. Generally, a sample size of 10 participants is small, and this sample may not be reflective of the opinions of the larger cohort of students in any given academic year. However, those that did participate, did so fully and their comments and feedback have been an important output of the research undertaken.

More generally, **all participants noted the need for a mobile app version of the EKT platform**. This was not available during their pilot study but has since been created in the last few months of the project. It would have been great to evaluate the mobile app, but this was outside the remit of the Irish pilot study timeline.

All participants found an 'additional platform to log into' difficult, especially while out in a school, where they did not have the direct support of the IT team while away from college. Feedback collected notes all participants would have preferred if the platform was integrated with college tools they already used, such as Moodle and MS Teams. This may be possible in future iterations of the EKT Platform, where an LTI (learning tool interoperable) plug in could be created by the technical partners, and any College or University could then add the EKT tool to their regular virtual learning environments.

Overall, the Irish experience of the EKT pilot study was a success for those involved, despite being of a very short duration. The outcome of this project for Marino Institute of Education is that all future platforms suggested to be used must be integrated into the tools we already use in the Institute. **Future work on the platform must include interoperable standards** so the EKT platform can be used as an open educational resource by those that want to, in the future, without the need for ongoing technical support by the technical partners to this project. The final version of the EKT Platform, as presented recently, has accommodated the 'mobile application' requests, so we look forward to the future developments of the EKT platform, and its use with a wider audience into the future.

## 4.3. University of Plymouth

### 4.3.1. Background

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**The University of Plymouth is a three times winner of the Queen's Anniversary Prize for Higher and Further Education, a top 50 research university, and has been named one of the top 25 institutions globally and first in the world for marine research and teaching in the Times Higher Education Impact Rankings 2021.** Employing over 3,000 staff, the University of Plymouth is committed to providing a first-class, first-choice student experience, enhancing employability and developing scholarship and citizenship. It has been recognised for its innovative teaching, its impact-driven approach to research, and the way it works with partners to create social and economic benefits for the communities.

Plymouth Institute of Education currently supports both undergraduate and postgraduate teacher training from early years to further education. The Institute also offers BAs in Early Childhood Studies and Education Studies, an MA in Education as well a professional doctorate and PhD programme. Plymouth Institute of Education has a strong recent history of engagement and research leadership in European projects through the Comenius and Erasmus programmes.

The EKT Project in Plymouth Institute of Education was led by Associate Professor Jan Georgeson, Research Partnership Lead. She consulted colleagues in Initial Teacher Education throughout the three and half years of EKT to ensure that project activities fitted in with Institute developments. Cara Baer was recruited to the team to work on student voice, and Jacklyn Barry, who works as an academic mentor, joined the team to ensure that mentors' perspectives were well represented.

#### 4.3.2. Pilot Implementation Approach at University of Plymouth

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The EKT project at University of Plymouth began with interviewing staff involved in school placements, both as mentors and tutors, to ascertain the role of technology in placement monitoring and support. This led to the initial decision to focus on the experience of first year BEd students on the Primary pathway because of the relative lack of restrictions on their placement requirements; second- and third-year undergraduate placement activities are tightly constrained to meet regulatory requirements. **Recruitment to the pilot was, however, slow.** We planned to introduce the EKT platform as an additional source of support and communication during the three short (two-week) placements across the first year of study. However, as with many students at this time, the first-year cohort had experienced considerable disruption to their learning because of the pandemic, and very few felt able to take on extra commitments.

Two undergraduates did volunteer to become involved in this phase of the project in 2021/2022. The EKT platform was shared with them before their first short placement and afterwards we interviewed them about their placement experience in general and their communication requirements in particular. In conjunction with discussions with university staff, these interviews yielded rich data about how staff and students managed the different kinds of interaction and assessment activities, sometimes using technology and sometimes through face-to-face interaction.

**In the second phase of the EKT project during 2022/2023, we added a focus to the role of mentors during placements at our institution.** Four kinds of mentor were involved in support for placements; school-based mentors, university mentors who supervised the work of school-based mentors, university mentors who supported students directly and finally university tutors who acted as placement mentors during the short placements spread across the first year. We recruited a university mentor to the research team and attended mentor training to help to explore the current systems for communication between mentors, schools and students. Because monitoring and assessment systems had been recently revised, it was not possible to replace these systems with the EKT platform; nonetheless communication during placement was very much a live topic. We therefore interviewed 10 mentors to ask them about how they supported students in general and the role of technology in particular. **We also carried out focus groups with first-year students about to go out on their second short placement and invited 10 doctoral students who were studying different aspects of English education to comment on the usability of the EKT platform.**

#### 4.3.3. Post-pilot activities

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The first phase of the EKT programme in UK had led to a publication in *Impact*, a professional journal, and a presentation as part of a symposium at BERA, a national academic conference for the British Education Research Association in September 2022. This symposium, Re-calibrating theory-practice relationships within initial teacher education dialogues, was selected for videorecording to aid wider dissemination.

The data from the second phase are feeding into a broader initiative on mentorship (both giving and receiving mentoring) as the institution reviews its student offer following reorganisation. We have also been selected to present at BERA 2023 in Birmingham on "Mentors' understanding of their role in school placements: ambassadors, assessors and 'agony aunts'" and are currently writing a paper on mentors as boundary-crossers, exploring their role as mediators between student, school and university.

#### 4.3.4. Pilot Participants

Student participants comprised 18 first year students (2 in 2021/2022 and 16 in 2022/2023) on the BEd programme in Primary Education and 10 doctoral students researching education practices in England.

We also interviewed 10 mentors across the range of mentor types working to support students on placements in our institution. Some of those interviewed were school-based mentors, that is, staff who took on the responsibility for student teachers on placement in their school and who might or might not host the student teachers in their classroom; others were mentors employed by the university to support school-based mentors and their students or, in the cases where no school-based mentors were in situ, support the students directly. In addition, university tutors acted as mentors for first year students during their short two-week placements. These university tutors also gave us overall information about the way the BEd programme was organised and how the placements fitted into the programme.

#### 4.3.5. Conclusions and Remarks

The main strength of involvement in the EKT project has been the **focus on communication during placements** – as opposed to the perhaps more familiar focus on assessment and completion of tasks to demonstrate competency against the Department for Education’s Initial Teacher Training (ITT) Core Content Framework, ultimately evidencing achievement of the Teachers Standards. This has led to enhanced understanding of the **role of mentors as the ‘glue’ that holds the system** together. We are exploring this further through deeper analysis of interviews, focus groups and documents, both official guidance on placement and the role of mentors, and institutional information about roles and responsibilities.

Because of the particular circumstances in the institution at the time and other factors related to the national ITT context, the EKT platform was offered an optional addition to the required communication, monitoring and assessment systems at University of Plymouth. It was perhaps over optimistic to assume that staff and students would want to take on the burden of learning how to use a new platform, particularly as the in-house systems had recently been revamped. The EKT project was, however, timely in that it has prompted an investigation into ways of supporting initial and early career teachers from the perspectives of all stakeholders.

We were surprised to find that, by the end of the project, our **participants were generally relatively comfortable with most aspects of the in-house technology**, namely OneDrive, email and ePad, a bespoke monitoring platform developed by members of the ITT team. At the start of the project, staff and students had been finding the existing technology cumbersome; school staff in particular found it took time to learn how to use the various applications to monitor and comment on students’ work. We noted that both staff and students were less concerned about how to manage information technology by the end of the project, possibly because of all that they had learned about virtual communication during the pandemic. Instead, we noticed a determination to **prioritise face-to-face communication and the sharing of ‘real’ objects**, as if the experience of working ‘in person’ again had heightened appreciation of handling touchable materials and interacting face to face. For example, students shared documents with their mentors online, who then often printed these out for discussion face to face and then transferred their written comments on to the online monitoring site. If face to face communication was not possible, however, both staff and students switched smoothly to virtual meetings and screen sharing of documents. The use of technology had become normalised; its usefulness was acknowledged and its place as an everyday tool for communication was now assured. However, although technology was seen as less problematic than before the pandemic and its role in facilitating communication around many aspects of school placement was now accepted, the in-person encounter of lesson observation and subsequent reflective conversation were still valued as the heart of the placement process.

Overall, the interviews and focus groups carried out during the EKT project have helped us to develop a more **nuanced view of the different ways in which students, schools and universities communicate, and this is helping to inform our future practice.**

## 4.4. University of Minho

### 4.4.1. Background

**In Portugal, the EKT project has been piloted at the Institute of Education of the University of Minho, an institute with more than 45 years of experience in initial teacher education.** This Institute of Education offers all the professional qualifications for initial teacher education that currently exist in Portugal: the master's degrees in early childhood, Primary Education and Secondary Education. The Institute of Education of the University of Minho currently has more than 500 students and more than 80 professors.

**Teacher training in Portugal involves the attendance of a graduation (6 semesters) and a master 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 in what concerns the different areas involved and the correspondent ECTS units.

A bachelor's grade in Elementary Education is the condition to access nursery and primary school teacher training master programmes. The attendance of a secondary school teacher training programme implies a bachelor's' grade and a predefined minimum of ECTS units in the content area(s) of the programme.

ISP takes place during the two final semesters of master's programme and is developed in schools under a protocol established between the university and the schools. ISP has a minimum number of correspondents ECTS units that vary according to the teaching level of the programme (32 to 48). Different subjects contribute to ISP, by focusing on contents and/or methods implied in practice. ISP includes modules, taught in HE institutions, that provide students with theoretical and methodological knowledge that is implied in practice. Students have to follow the norms established at each HEI. The achievement of the teaching professional award depends on the approval of the Practice Report, presented and discussed by a jury.

**The ISP aims at the development of trainees' professional skills by promoting an attitude oriented towards the permanent improvement of learning and is conceived in a training perspective,** articulating knowledge and the ways/means for its transmission; it includes observation and participation in supervised situations of education and teaching practice in the classroom; it provides trainees with planning, teaching and assessment experiences, according to the committed to the teacher, inside and outside the classroom.

**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.** This project must attend to general some principles: adequacy to contexts of practice; orientation to practice; ethical-conceptual basis; research at the service of pedagogy; training potential. Practices aim at promoting 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 reflexive records; self/co-assessment. The project has a core role and is supported by the training tasks. Communications and exchanges between mentors and with student-teachers are carried out by e-mail or telephone and in regular meetings at the university or at schools.

#### **4.4.2. Pilot Implementation Approach at University of Minho**

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The pilot of the EKT project in Portugal was developed over the academic years 2022-23, from November 2022 to February 2023 and involved students enrolled in Master's Degree in Secondary Teacher Training (Portuguese Language, Mathematics, Biology/Geology, ICT).

The implementation of the pilot involved a set of actions that were necessary for the successful execution of the experimentation with the EKT system. These actions were developed according to the following sequence:

##### **Adaptation and translation of the environment and the SPOC**

The researchers at the University of Minho, following the instructions of the technical team and those responsible for the SPOC, translated all the elements linked to the platform, the SPOC content and, once produced, incorporated it into the Chamilo platform. The translation of the contents of the training course generated significant problems due to the lack of compatibility of the contents generated with the content cloud tool.

##### **Selection of participants**

Students involved in the pilot study were selected among those who were supervised by the researchers involved in the EKT Project. As the pilot study implied extra work when students were already very busy, involved in different and hard tasks, not only at schools but also by attending other disciplines at the university, it was rather difficult to have students participating in the study.

##### **Activation of participants in the EKT System (Mentors, student teachers and placement schools)**

During the implementation of the pilot, the process of user registration in the platform was made by the university coordinators, with the support of CESGA

The activations took place in the following sequence:

- University and university coordinators;
- Schools;
- Student teachers;
- Academic mentors;
- School mentors.

For each of these cases the activation was performed by means of a csv file that covered the fields required by the platform, in some cases, and by registering participants individually, in others.

##### **Preliminary meetings to present the project and the EKT System**

During the preparation phase before joining the schools, mentors and student teachers were introduced to the project, the EKT platform and the proposal to participate in the piloting in a meeting with the participation of the project coordinator Carmen Fernandez Morante. The platform was presented, and participants had the opportunity to register and test the platform. The necessary participation by providing data for the evaluation was also introduced.



### **Use of the EKT System during the internship**

Once all the users were activated on the platform, the experimentation process began. Students were invited to upload documents and use the ePortfolio as a tool for reflection and the communication app. Due to the amount of the activities they were involved in and to the fact that they felt some redundancy in the platform regarding reflection and communication, the participation was rather low. Besides that, students were meeting their supervisors regularly and did not feel the necessity of using the platform to communicate and share documents they could deliver in person. Some issues related to the privacy of the communication and of the documents were also raised. The levels of involvement were very diverse, there were students that explored and used some of the tools, others didn't.

### **User support**

A dynamic of technical support to users was established. CESGA helped in the solution of some of the problems that emerged regarding registration and the access to some of the platform devices.

### **Collecting information during the process and at the end for the evaluation**

In addition to the information collected during the process, a focus group was implemented for the analysis of the experience and its evaluation, and an online evaluation questionnaire was implemented and answered by a some of the pilot participants.

### **4.4.3. Pilot Implementation Timeline**

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November 2022 / February 2023 – with students enrolled in Master's Degree in Secondary Teacher Training (Portuguese Language, Mathematics, Biology/Geology, ICT Teaching Master Programmes)

#### **Pre-Pilot Content Customisation. Tasks completed:**

- Translation of SPOC content
- EKT System Interface Translation.

#### **Participant Recruitment. Tasks completed:**

- Selection of mentors and students
- Presentation of the pilot to participants (responsibilities, objectives, timing).

#### **Introductory Sessions with participating teachers. Tasks completed:**

- Explanation of the platform and its functionalities
- Practical demonstration and training with the platform
- Resolution of doubts and incidents (access, credentials, errors, etc.).

#### **Experimentation. Tasks completed:**

- Realisation of the SPOC
- Use of the different functionalities of the platform and tools during the internships.
- Carrying out of the questionnaire and focus group for the evaluation.

#### 4.4.4. Pilot Participants

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- 19 student-teachers
- 5 School mentors
- 4 Academic mentor
- 1 academic coordinator

#### 4.4.5. Conclusions and Remarks

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When evaluating the EKT platform, one of the positive aspects that stands out concerns the possibility of carrying out, using a single tool, a set of tasks that usually involve the use of different means (communicating, planning work, filing documents, reflecting on, and others). The existence of a **single communication channel** deserves a highly positive evaluation, as it avoids the use of more personal means used in communication and access to personal data (as with the mobile phone number in networks such as WhatsApp). The issue of the **privacy of the information** placed in the portfolio, already resolved, may have constituted a fear factor regarding using the platform. The platform favours sharing experiences among trainees, broadening their perspectives beyond what they do in the contexts in which they are inserted.

The access and use of the platform do not pose significant difficulties, being quite intuitive. It is recognized, however, that it requires a **period of familiarization** with its operation to create the habit of using it. This necessity, associated with the fact that the interns were absorbed in multiple tasks, had weekly face-to-face meetings with their supervisors and had already established their own ways of working, may have contributed to a lower use of the platform in this phase of the pilot study. An introductory period to the platform, before the start of the internship, may encourage its use.

The ePortfolio is seen as a handy tool, although its use raises some difficulties, namely concerning the use of labels relating to the organization of information and the existence of a space that can **facilitate reflection**. It is also desirable to introduce guidelines that encourage that reflection. Since the construction of a portfolio is compulsory in the internship regulation, including this tool in the platform is essential. How it is built, and the materials included in it should facilitate the elaboration of the final report.

Most trainees who participated in the pilot study did not complete the SPOC. Despite recognizing its usefulness, students consider the following: in some cases, its contents are redundant, as they have training in these areas; SPOC privileges the technical dimension to the detriment of demonstrating the usefulness of the platform for their practices; the videos, somewhat lengthy and in English.

Regarding the communication tool, and in addition to the advantages mentioned above (existence of a **dedicated channel for the internship**, privacy), some technical difficulties were identified in its use since many of the messages sent were not received. Furthermore, other forms of communication (in person, by telephone, email, or WhatsApp) were already in use, with satisfactory results meeting the needs, contributing to the non-recourse to this tool.

The calendar tool was not used since the participants are used to using other means, from the paper agenda to the cell phone and computer calendar. Therefore, synchronizing this calendar with other calendars could be helpful.

The documents tool was also little used as there was no need for it, given that people already use other tools with which they are comfortable. The content creation device was also not used. In the period corresponding to the pilot study, the students were taking a course on the evaluation and design of didactic materials at the university, in which they did work related to the internship.

In summary, it can be said that the most significant advantages of the platform have to do with the existence of a **specific virtual space** in which the various activities within the scope of the internship can be carried out without dispersion across multiple places and channels as usually happens; Its importance is also recognized as a channel of communication and sharing of experiences between trainees and their supervisors. The potential of the portfolio tool for developing a more reflective practice is also recognised.

## 4.5. University of Santiago de Compostela (USC)

### 4.5.1. Background

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In Spain, the EKT project was piloted at the Faculty of Education Sciences of the **University of Santiago de Compostela, a university centre with more than 150 years of experience in initial teacher education**. This centre offers all the professional qualifications for initial teacher education that currently exist in Spain: the degrees in Early Childhood and Primary Education and the master's degree in Secondary Education, Baccalaureate and Vocational Training. The Faculty of Education Sciences at the University of Santiago currently has more than 2500 students and more than 300 trainers.

In the initial teacher education degrees of the Faculty of Education Sciences there are two cycles of **In School placements** which are located in the final years of the degree courses and in the single course of the master's degree. These placement cycles last at least 3 months, during which students leave the faculty to continue their training at the placement centres. The first cycle of ISP is of a general nature, involving observation and knowledge of the educational context and the teaching function. The second cycle has a general character of guided intervention. In the first cycle of ISP, the student gets to know the placement school and professional environment and designs an educational intervention proposal. In the second cycle, the student teachers implemented and evaluated it with the help of their school and **academic mentors**.

As they work in two different contexts: initial training centre and placement school, the mentors take on preferential roles in each of them: before arriving at the placement school, the academic mentor plays the leading role, and when they arrive at the placement school, it is the school mentor who takes on the leading role. At present, it is difficult to work horizontally throughout the whole process because of the physical distance and the existing culture. Therefore, there is a **fragmentation in the process** in which each mentor works almost exclusively with the student teacher and collaboration is almost non-existent.

Communications and exchanges between mentors and with student teachers are carried out by e-mail or telephone and, in the best of cases, through the virtual campus where documents are uploaded, and the final report is uploaded.

### 4.5.2. Pilot Implementation Approach at USC

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The pilot of the EKT project in Spain was developed over 2 academic years: 2021-22 and 2022-23. In the first of these, the pilot was carried out in the second cycle of practice (intervention) with students from the Early Childhood and Primary Education Degree and the Master's Degree in Secondary Teacher Training. In this case, student teachers who had already completed an internship and whose activity involved a guided direct intervention in the placement school were piloted. The second pilot was carried out in the academic year 2022-23 with student teachers from the first cycle of internships (observation) with student teachers from the Early Childhood and Primary Education degrees. In this case they piloted student teachers who had not previously done an internship and whose activity involved observation of the placement school, classroom and teachers.

The implementation of the pilot involved a set of actions that were necessary for the successful execution of the experimentation with the EKT system. These actions were repeated in the **two cycles according to the following sequence:**

### **1. Adaptation and translation of the environment and the SPOC**

The researchers at the University of Santiago, following the instructions of the technical team and those responsible for the SPOC, translated all the elements linked to the platform, the SPOC content and, once produced, incorporated it into the Chamilo platform. The translation of the content of the training course generated significant problems due to the lack of compatibility of the content generated with the content cloud tool.

### **2. Selection of Participants**

The selection of participants had to be planned from the course prior to the experimentation in each cycle and was made possible by the involvement of the management team of the Faculty of Education Sciences of the USC in the project. It was very complicated to introduce the system into the process, as the process in universities is very rigid and systematised and has been in operation for many years, which makes the introduction of an innovation, or in this case an experimentation that involves more work for the student teachers and for the mentors, very difficult.

Initially, a large group of academic mentors from the University of Santiago were invited to pilot the system. The project was presented to all of them, and they were invited to participate. All those who voluntarily decided to get involved formed the working group. The student teachers and school mentors assigned to these academic mentors completed the group. The process was repeated for the two academic years of experimentation.

#### **4.5.3. Activation of participants in the EKT System (Mentors, student teachers and placement schools)**

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During the implementation of the pilot, the process of user registration in the platform was an arduous task. During the first experimentation cycle of the pilot, we solved this task with the direct help of CESGA, who helped to activate users on a group-by-group basis, enter the data of the schools and establish the mentoring links.

With the learning from this first experience, the process was greatly simplified, and we were able to identify a series of steps to execute it efficiently. However, since it is first necessary to have a complete list with all the data - both the information from the schools and the triangulation of each user profile, and in the case of Spain this information is not available until the arrival of the students at their internship centres - concluding the assignment of school mentors, not all profiles could be registered at the same time. The activations took place in the following sequence:

- Schools and school coordinators
- University and university coordinator
- Student teachers and academic mentors
- School mentors.

For each of these cases the activation was performed by means of a csv file that with the fields covered required by the platform.

### **Preliminary meetings to present the project and the EKT System**

Prior to the start of the in-school placements and always during the preparation phase before joining the schools, mentors and student teachers were introduced to the project, the EKT platform and the proposal to participate in the piloting. The responsibilities and the work schedule were defined. The necessary participation by providing data for the evaluation was also introduced. Meetings were held first with the academic mentors, then with the academic mentors and the student teachers, and then with all three groups together. During the meetings it was ensured that all participants had access to the EKT platform autonomously.

### **Use of the EKT System during the internship**

Once all the users were activated on the platform and coinciding with the arrival at the placement schools, the experimentation process began. The first of the activities planned was the training course through which the whole experience of collaboration and reflection was mobilised in the ePortfolio. Taking into account the intensity of the in-school placements activities and the necessary dedication that the training course entailed, the users requested that it could be carried out throughout the entire pilot. In general, the most used tools were the ePortfolio and the communication tool that the student teachers and mentors installed on their mobile devices. The levels of involvement were very diverse both by groups and within user groups. Thus, the involvement of school mentors was the most complicated while the involvement of academic mentors was continuous. Within the student group, the levels of involvement gradually increased.

### **User Support**

A continuous dynamic of both technical and pedagogical support to users was established. CESGA and University of Santiago partners assumed this responsibility in the Spanish pilot. Instruments were designed to systematise the help and support needs of users. Several questionnaires of real time coverage were implemented within the platform. These questionnaires allowed to register in real time, problems, incidents and improvement needs. In addition, constant observation was carried out within the system and individualised help was provided to all participants. All the data provided by these questionnaires were analysed at the end of each of the pilot cycles and considered in the definition of improvements and changes to the EKT system, resulting in the 2 versions tested.

### **Collecting information during the process and at the end for the evaluation**

In addition to the information collected during the process, focus groups were implemented for the analysis of the experience and its evaluation, and an online evaluation questionnaire was implemented and answered by a large number of Spanish pilot participants. The analysis of the data obtained in the focus groups and the feedback obtained during the two pilots has been collected in the "Spanish qualitative data evaluation report EN.docx" elaborated for WP7.

#### 4.5.4. EKT Pilot Cycle

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**First cycle.** 1st September 2021- 31st May 2022 (Teaching degree, early childhood and elementary school education, Teaching degree in primary education). 1st February to 6th May 2022 Master's Degree in Teacher Training for Secondary and High School Education)

**Second cycle** 1st September 2022 - February 2022 (Teaching degree, early childhood and elementary school education, Teaching degree in primary education)

**Pre-Pilot Content Customisation. Tasks completed:**

- Translation of SPOC content
- EKT System Interface Translation.

**Participant Recruitment. Tasks completed:**

- Presentation of the project to mentors to recruit participants.
- Selection of mentors and students
- Presentation of the pilot to participants (responsibilities, objectives, timing).

**Introductory Sessions with participating teachers. Tasks completed:**

- Explanation of the platform and its functionalities
- Practical demonstration and training with the platform
- Resolution of doubts and incidents (access, credentials, errors, etc.).

**Experimentation. Tasks completed:**

- Realisation of the SPOC
- Use of the different functionalities of the platform and tools during the internships.
- Carrying out of the questionnaire and focus group for the evaluation.

#### 4.5.5. Pilot Participation

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##### First cycle

- 23 student-teacher
  - 3 master's degree students in secondary teacher training
  - 20 students from the degree in early childhood and primary education
- 23 School mentor
- 6 Academic mentor
- 1 academic coordinator
- 1 school coordinator

##### Second cycle

- 81 student-teacher
  - 36 student-teachers of the degree in primary education
  - 33 student-teachers of the degree in early childhood education
  - 12 student teachers of the double degree in early childhood + primary education.
- 81 School mentor
- 8 Academic mentor
- 1 academic coordinator
- 1 school coordinator

##### Total Participants

- 104 student-teacher
- 104 School mentor
- 14 Academic mentor
- 2 academic coordinators
- 2 school coordinators

#### 4.5.6. Conclusions and Remarks

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As it was the **strong points of the pilots**, the following stand out:

- The important expectations that the EKT project and the EKT smart system have generated in the mentors, coordinators and student teachers. Currently, once the pilot is finished, we are receiving requests to use the tool in future academic years.
- The level of collaboration and joint learning that the experience has promoted among the academic mentors.
- The high level of interaction between the student teachers and their academic mentors during their stay in the placement schools and despite the distance between the placement schools and the Faculty of Education Sciences.
- The advantages provided by the EKT system for the management of the ISP and for all user profiles.

**Weaknesses of the pilots** were highlighted as follows:

- The difficulty of involving school mentors due to lack of time and also the need to adapt some of the proposals formulated in the SPOC to their reality. The proposals for reflection and activities must be agreed in advance between academic and school mentors.
- The rigidity of academic processes which makes it difficult to make protocols and procedures more flexible by incorporating innovative elements. Participation in the pilot in many cases meant extra work and the duplication of some tasks for the academic mentors and for the student teachers.
- The impossibility of communicating the EKT system with institutional databases for security and data Protection reasons. This made the incorporation of users into the system very complex and laborious.
- The different timetables and rhythms of the In school placements for each degree programme and the necessary coordination throughout the process with multiple agents.

It is important to have the EKT system because during the in-school placement student teachers are very disconnected and disconnected from their peers and the Initial Teacher Training centres. The evaluations formulated in the first pilot regarding the usefulness and importance of the system are maintained. It is understood that the connection during in-school placement and guided reflection are positive in the learning process.

It is necessary to have the same virtual collaboration space for student teachers and academic and school mentors, as it allows a real connection during the in-school placement. This connection of the three agents involved (student teachers, school mentor and academic mentors) and of the two contexts (university/ITTC and school) serves to get to know each other better, to share information throughout the process and to bring university mentors closer to the reality of the placement schools.

The physical and cultural distance between the Initial Teacher Education locations and the placement schools and the lack of horizontality in the in-school placement process were noted.

The participating student teachers recognize that the **EKT system has had an impact on their learning and has helped them to deploy a reflective and non-strategic approach**, as usual, focused exclusively on “doing” and “delivering a final report” of the In School Placement.

The **EKT system presents multiple advantages** in relation to the virtual campus of universities/ITTC such as:

- Communication is much more direct. The instant messaging functionality is very useful and the possibility of creating specific communication channels (different groupings) is very useful.
- During In school placements, the virtual campus is mainly used to download documents, consult, send final report but interaction between mentors and student teachers is not possible since the school mentors are not activated nor the joint monitoring and review of the process.
- In the virtual campus we do not have tools for reflection (notes, portfolio).

The EKT system **fulfils the objective of keeping the three protagonists connected**, reflecting together and having mentors and peers available to provide support throughout the process. No further functionality is needed. With regard to the final desktop version and the APP of the EKT system, the following considerations are extracted:



- In general, users use the EKT system on the desktop version. Not from mobile devices.
- The completion of the SPOC and its formative activities, as well as the reflection and interaction in the portfolio require time and rest so these actions are not performed while they are in the placement school. They are performed when leaving placement school or during study time.
- The uses of the system from mobile devices have been limited to instant messaging: answering, reading, sending, establishing audio or videoconference communications (with their mentors or classmates). The system is understood as very useful in real time to establish quick communications with mentors or peers.
- The experimentation of version 2 of the system makes evident a selection of the functionalities of the EKT system to be incorporated in the APP and that not all of them should be included in this format, being appropriate those oriented to instant interaction from mobile devices.

*"I think it is a useful tool and not complicated to handle. With the presentation of it and a little time of use, it can be handled without problems. I think it is more agile than the virtual campus and offers an immediacy that the virtual campus does not provide. It has a more intuitive operation and less complex in its organization." (Academic mentor).*

*"I consider that the EKT platform is well designed in its structure, and it is quite clear in terms of the usefulness of the different tools it offers. The design is attractive and encourages its use. I highlight the possibility of interaction that it offers among the agents involved in the practicum, unlike the virtual campus, whose access is restricted to external mentors of the university." (Academic mentor)*

*"The best thing about this platform is being able to work collaboratively, to learn from the good practices of colleagues." (Academic mentor)*

*"...first time in life that I had the professional occasion to share with other mentors and see how other mentors interact with their student teachers and learn from them." (Academic mentor)*

### **EKT SPOC Course**

The approach to observation and action research in the course is positively valued by both mentors and student teachers. These are relevant contents that are worked on in other subjects of the initial training and that it is important to keep in mind during the internship.

It is suggested that the SPOC be done before arrival at the placement school and that all users (mentors and student teachers) do it simultaneously. The time flexibility offered for its realization did not help since the activities included require simultaneous actions of mentors and student teachers and this lack of synchronization did not help. It is urged to involve school mentors in the whole process, from the beginning (design of the training process) to the end: evaluation of learning.

Version 2 of the platform is considered to be very intuitive and does not require as many videos to become familiar with its use as those incorporated in the SPOC. Mentors and student teachers consider that the SPOC content requires more hours of dedication than expected. It is urged to select and reduce the training prior to arrival at the placement schools, for example, limiting it to a flexible sequence of topics, questions or activities around which the reflection in the portfolio will be organized and previously agreed with the school mentors (Preparation Phase).

Mentors and student teachers consider that the learning activities formulated to stimulate interaction and reflection are understood to be very disconnected from the real experience of the student teachers and school mentors during the in-school placement. It is urged to connect them more to their in-school placement experience. This, together with the lack of time, would justify the difficulties of involvement experienced by school mentors in both pilot cycles. It is necessary to review these proposals from the point of view of the possible benefit that the proposed activities or reflections can have on the experience that takes place in schools (for school mentors, placement schools). In short, to connect them with real practice, with the real experience that takes place during In School Placements.

*“if the activity in the system is focused on doing the SPOC you lose the sense of using the platform flexibly for communication and reflection” (Student teacher teacher).*

*“I was getting saturated with so much video” (Student teacher teacher).*

*“I would make the SPOC shorter and more concise” (Student teacher teacher).*

*“The training course is key to understanding how the EKT platform works and making the most of it as a training strategy. I participated in the first pilot phase with a student teacher and her internship mentor, but we did not use the portfolio due to lack of internal coordination between us. If I could have access to the EKT platform in the future, I would try to take more advantage of the portfolio” (Academic mentor).*

## **ePortfolio**

The ePortfolio was the most used tool. The student teachers recognize that they learn from the reflections of other student teachers who are in other placement schools and share different experiences. It is understood that reflection enriches the formative process. The student teachers consider that the ePortfolio is very useful in their internship process.

The mentors consider that the portfolio is the most important tool in the system and that it is very useful for individualized monitoring of the student teacher’s in-school placement activity. They also see it as a valuable tool for learning from other mentors.

Mentors and student teachers indicate that the suggested activities and questions should be revised to encourage reflection and interaction in the portfolio. They propose linking them more to their actual experience, agreeing them with the school mentors or using the portfolio to help in the elaboration of the final internship report.

The structure of the ePortfolio and the questions for reflection should be agreed with the school mentors beforehand, for example, and in order not to close the process too much, agree on the reflective sequence every so often with the mentors (weekly or monthly).

*“The questions for reflection, observation and research were very appropriate for me, and above all, being able to access all the contributions of the supervisors and the student teachers. The e-portfolio is the tool I value the most. I think it greatly enriches the work and reflection during the internship” (Academic mentor).*

*The portfolio is fundamental for the elaboration of the final internship report, not only to make a good report, but also to work continuously and reflexively in its elaboration and to receive feedback from the mentors. In the end it would be like a daily diary in which you receive help from the mentors.” (Student teacher teacher)*

### **EKT Communication Tool**

Instant messaging has been used very frequently. Once the App is installed on mobile phones it allows agile and fast communication with all participants. Problems were experienced in the configuration of notifications. In some cases, they were disabled, depending on the operating system. This meant that users did not give feedback quickly.

The established communication channel structure (Large group) did not help. It is felt that each mentor and student teacher should decide on the communication channels in a flexible way. For example: three-way channels (the two mentors and the student teacher, mentors' channels with their student teachers, free channels to be established by the student teachers themselves).

*"I felt very accompanied during the whole piloting. It was very helpful to know at all times what was expected of our role as Practicum supervisors. No recommendations" (Academic mentor)*

*"The communication tool is one of the main attractions of the platform, because it facilitates the preparation of the practicum, the monitoring of the student teachers during their stay at the practicum centre and the coordinated evaluation among the supervisors. During my participation in the pilot phase of EKT I used this tool occasionally, but I consider it to be one of the most important tools for its educational potential before, during and after the internship." (Academic mentor)*

*"I believe that communication during the internship has improved since the increased use of technology-based communication tools. Therefore, having a tool like this would be helpful." (Academic mentor)*

*"Instant messaging was very helpful to us. Super useful. It is not the same to receive a quick notification that you answer at the moment than having to access email" (Student teacher).*

### **EKT Document Tool**

An important use was made as a repository of the institutional materials of the practices. However, the possibilities of collaborative creation and editing provided by the tool were not.

*"During the pilot phase I uploaded the practicum guide as a test of the tool. I had no problem and I think it is useful to share key information between mentors and student teachers" (Academic mentor).*

### **EKT Management Tool**

The tool was used mainly by academic mentors and academic coordinators. They reported a very high valuation of the tool because it allows them to have all the data of the student teachers and placement schools and to follow up from it (access to the portfolio, to the contents created by each student teacher, etc.). Currently, each academic mentor compiles his or her own database with the information that students send them from the placement centre. The student teachers reported having made a casual use of the tool to know in which school placement their peers were.

### **EKT Content Creation Tool "Chamilo Studio"**

The student teachers stress the need for this functionality in order to prepare teaching materials and even their Final Report but point out that the tool does not allow creative creations since it has few templates and all of them are very descriptive.

# 5. EKT USE CASES

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A number of stakeholders are involved in the school placement process at both university and school levels. These include:

- Academic Coordinator
- Academic Mentor
- School Mentor
- School Coordinator
- Student Teacher

The roles and responsibilities varied between countries involved in the pilot. Through use case examples, this section provides an overview of EKT pilot from the perspective of the various stakeholders.

## 5.1. EKT Use Case - Academic Coordinator



**BEATRIZ  
CEBREIRO  
LÓPEZ**



is a Professor of the Department of Pedagogy and Didactics, specialising in Educational Technology. Beatriz has extensive academic and research experience in the field of Teacher Education and Educational Technology. She has worked in initial and in-service teacher education at all levels and she has researched the teaching induction period (beginner teachers). She has a track record of more than 3 decades as an academic ISP mentor.

### 5.1.1. Use Scenario

For the academic coordinator, it can be challenging to keep school coordinators, school mentors, academic mentors and student teachers connected. USC wanted to look at **how online tools could be used to support the mentoring of student teacher while out in schools**. With EKT we set out to provide more direct communication, foster reflection and facilitate collaboration. The EKT platform encouraged sharing experiences and feedback, promoting the analysis of diverse perspectives and fostering personal growth in understanding a teacher's role.

### 5.1.2. EKT in Action

The EKT smart system was used throughout the in-school placement process successfully reinforcing some **key functions** such as:

1. Real time communication between academic and school mentors.
2. Communication and monitoring of the learning process of future teachers during their stay in schools and therefore outside the academic environment of the faculty.
3. Favours reflection during observations and the design and implementation of an educational intervention in the classroom, both with their mentors and among their fellow interns.

From the point of view of the academic coordinator, the EKT system kept everyone connected, reflecting together and having mentors and peers available to provide support throughout the process. **This enhanced support for student teachers in placement schools resulted in better integration of their activities with technology and helped streamline the learning process.**

*"Our student teachers particularly liked having all of the communication tools in a single system. Until now they communicated with the supervisors by e-mail and with their mentors by WhatsApp."*

*"EKT covers many of the needs we had, from my point of view as an academic mentor, to accompany student teachers in this important period of their practice and help them to place all the knowledge they already have and its application to practice."*

### 5.1.3. How EKT can help

- The EKT System is Intuitive, easy to use but requires a basic training of the users before starting in order to get used to and become aware of the functionalities and the functioning of the tools.
- It reduces the feeling of isolation from colleagues during the internship. It allows to maintain the bond and not to feel alone by promoting interaction and reflective learning.
- EKT helps student teachers to self-regulate and collaboratively face the doubts, concerns or uncertainties that arise in this new scenario of connection with the educational reality and professional initiation.

## 5.2. EKT Use Case - Academic Mentor



**MIRIAM  
COLUM**



is head of the Department of Inclusion, RE & Student Life. She has been in MIE for over five years and was interested in the project as she saw its application for her Special Education students, in their final placement.

### 5.2.1. Use Scenario

In the last decade, the academic mission and scope of **MIE's activity has been re-envisioned to encompass a deeper understanding of education in and beyond the classroom**, to incorporate the continuum of teacher education and the education of specialist education practitioners at early years, primary and further education levels.

MIE got involved in the EKT project to help identify and source a tool to support the communication, upload and download requirements of a school placement block. As an academic mentor, I was looking to **have a secure, accessible and easy to use platform for students, teachers and mentors** (placement triad) involved in the special education placement. We used the EKT platform and approach with an unassessed block of placement so that the tools could be tested and used but would not impact the results for the students involved in the pilot study.

### 5.2.2. EKT in Action

In MIE, the EKT platform was used as a communication tool between students, teachers and academic mentors. The inclusion of a secure, proprietary non-social media communication platform to the EKT tool meant participants felt they could communicate with each other and that this communication would include all members of the teaching triad, was a new and welcome departure for the pilot participants. In the past, school placement has involved lots of paperwork and manual input of data into spreadsheets. As student data is stored in one central location, **it allowed college staff to save time and focus more on working with students** during their individual placement block.

*"The platform allowed me to streamline my work and connect with my students in a way that was focused only on School Placement, within a safe environment."*

*"EKT has been particularly helpful in identifying areas where students may need additional support and providing targeted feedback to help them improve."*

### 5.2.3. How EKT can help

- EKT platform has also made communication much more accessible with students.
- Mentors can quickly send messages to students, and they can respond at their convenience. This makes it easier to stay in touch and provide ongoing support to students throughout their placement.
- Using the EKT platform for school placement provides ready access to student progress and more efficient organisation of student data.

## 5.3. EKT Use Case - Academic Mentor



**JACKIE  
BARRY**



Is a university mentor to initial teacher education students in undergraduate and postgraduate programmes at the University of Plymouth.

### 5.3.1. Use Scenario

**University of Plymouth** is a three times winner of the Queen's Anniversary Prize for Higher and Further Education and a top 50 research university, 1st in the world for marine research and teaching (Times Higher Education Impact Rankings 2021). The University prioritises sustainability across teaching, learning and research and Plymouth Institute of Education prides itself on being part of this sustainable educational community. It has particular strengths in inclusion, early years and education for sustainable development and the Institute's courses all offer opportunities for work-based learning leading to postgraduate study or careers in education and health settings.

Current developments within the Institute suggested EKT in Plymouth should focus on placement mentors. **The existing methodology and technology mirrored that of EKT, but the role of mentor is changing, particularly following the pandemic.**

### 5.3.2. EKT in Action

First year students and school-based and university-funded mentors were interviewed and the EKT platform was shared to prompt insights into communication during placement across different media. Mentors described themselves as **ambassadors/interpreters working between school and HEI to support reflective practice but needing better ways to maintain their own support networks.**

*"Mentoring students across a variety of contexts presents unique challenges."*

*"My participation in the EKT pilot helped me to better understand the strengths and limitations of my role as a mentor to students who are training to become teachers. We often work independently and from instinct. This platform could be a useful tool to facilitate meaningful collaboration and the sharing of resources."*

### 5.3.3. How EKT can help

- The EKT System helps to demystify the different ways in which students, schools and universities communicate.
- The EKT platform can support college mentors and students to facilitate meaningful collaboration and the sharing of resources.
- The EKT methodology and approach is familiar to our students and can help mediate the variety of contexts which normally present unique challenges.

## 5.4. EKT Use Case - School Mentor



### MILAGROS TRIGO MIRANDA



Is an emeritus professor and expert in e-learning projects. Milagros continues to actively participate in the piloting of innovative methodologies and resources in European projects. She has more than three decades of experience as an In-school placement school coordinator.

#### 5.4.1. Use Scenario

In Spain, the EKT system was piloted in two academic years with student teachers from all Initial Teacher Education studies (Teaching degree, early childhood and elementary school education, Teaching degree in primary education and Master's Degree in Teacher Training for Secondary and High School Education). In the two piloting cycles (academic years 2021-22 and 22-23) a total of 104 student teachers, 104 school mentors (some in the double role of school mentor and school coordinator) and 14 academic mentors participated with the profile of school mentors.

For the school coordinator, the EKT system constitutes a **horizontal professional learning community**. The student teachers emphasize the need and usefulness of specific environments that allow communication between future teachers, practicing teachers and teacher trainers. Even beyond the internship.

#### 5.4.2. EKT in Action

The EKT system was used by mentors and student teachers during the entire in-school placement and in all Initial Teacher Education degrees. In the preparation phase that takes place before arriving placement schools, the EKT System was introduced, and students took part in the SPOC course. Once the student teachers went to their placement schools, the EKT system was used to support various activities including **continuous reflection, review meetings, as well as developing and exchanging materials. It also enabled feedback and multichannel communication between the school coordinator, mentors and students.**

*"The physical and cultural distance between the Initial Teacher Training Centers and the placement schools is often a barrier to successful placement experience. The EKT project is helping reduce this with greater collaboration in the process."*

*"The EKT system is undoubtedly a very useful tool that has evolved and I would now highly recommend it as a support resource."*

#### 5.4.3. How EKT can help

- The EKT system fulfils the objective of keeping the three protagonists connected, reflecting together and having mentors and peers available to provide support throughout the process. No further functionality is needed.
- During the training periods you are physically separated from the group, but the EKT system allows you to remain united as a learning community despite the physical distance involved in placement schools.
- The joint reflection fostered by the system helped to have a much more diverse and broader vision of the placement schools.



## 5.5. EKT Use Case - Students



**PH** Pädagogische Hochschule **Wien**  
Wien

**MARCELL HOFFMANN**  
**PRISKA EIDENHAMMER**  
**LENA ASCHAUER**

Are 3rd year student teachers at University College of Teacher Education in Vienna, undergoing Bachelor programme to become primary school teachers.

### 5.5.1. Use Scenario

Five Academic Mentors/Tutors, 70 Student Teachers and 15 School Mentors participating in the first cycle of pilot. Students from Bachelor Programme, 2nd, 3rd and 4th year groups, one Special Education Needs Group, and one group of Vocational Education.

The **e-learning system** was to be used during the entire piloting phase:

- For coordination between academic and school mentors
- Communication with student teachers (preparation for in-school placement)
- For reflections on observations
- Teaching trials
- Reflection (peer reflection and with school mentors during immersion into practicum phase) in school
- Post-placement period – reflective seminars happening between student teachers and academic mentors

The **SPOC** (training phase) aimed to engage the student teachers, academic and school mentors in:

1. Using the platform during the described phases
2. Communicating about relevant issues, e.g. Expectations for in-school placement
3. Reflecting on their in-school experience through critical action-oriented reflection (mini action research)

### 5.5.2. EKT in Action

The EKT platform was used with five groups from September 2021 to January 31st, 2022. The piloting phase had different periods of time depending on groups and incorporated the preparation phase, **immersion into practicum, and analysis of the experience following the EKT methodology**. Most school placements (preparation and immersion into practicum phases) were two weeks in duration followed by reflective seminars with academic mentors.

*“Using the Chat Tool was highly appraised where students could communicate between each other, see each other’s contacts which has not always been the case. It helped us to feel less isolated.”*

*“The experience was great because we were able to work in an international project, we got to learn new things from each other in the Chat and we were able to improve our IT skills. Action Research in the classroom was a new topic for me, and it was useful to learn about and actually try it”.*

### 5.5.3. How EKT can help

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- The EKT System was easy to use but requires basic training to become aware of the functionalities and functioning of the tools.
- Engagement reduces the feeling of isolation during the in-school placement.
- Methodological versatility and aim to engage all the key actors (academic tutors, school mentors, and student teachers) on the platform is seen as a key feature of the EKT platform.

# 6. LESSONS LEARNED FROM THE EKT PILOT

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**The EKT Pilot study aimed to evaluate the feasibility, usefulness, and pedagogical quality and effectiveness of the EKT e-learning system and materials in teacher education.** The goal is to identify potential improvements to the EKT platform and its implementation in future teacher education programmes. The EKT Evaluation which was carried out in parallel with the pilot and provides a more rigorous evaluation of the effectiveness of the EKT approach. This review provides an overview of the lessons learned from the pilot study, drawing on feedback from participants and institutions involved in the study.

## 6.1. Onboarding and Training

- Intuitive systems like the EKT Platform still require basic training and onboarding for users to become acquainted with functionalities and tools.
- The SPOC materials positively affected student teachers' feelings about their knowledge. They reported getting to know each other better through the EKT Platform and learning to discuss and reflect on challenges encountered during their in-school placement.
- Academic mentors highlighted the benefits of action-oriented reflection tasks and the potential of the EKT Platform to foster critical reflection and communication by involving school mentors in the conversation.

## 6.2. Impact on Student Teachers and Mentors

- The EKT System engages all key actors (academic mentors, school mentors, and student teachers) and was seen as a key asset.
- Student teachers reported positive impacts on their learning and a more reflective approach during placements.
- The SPOC activities and content were well-structured, relevant, and stimulated reflection.
- The EKT Platform did promote interaction and reflective learning and facilitates self-regulation and collaborative problem-solving.
- Aligning activities and reflection proposals between academic and school mentors in advance would be beneficial.

## 6.3. Communication and Collaboration

- The single virtual space facilitated real-time connection and communication, bridging the gap between university and placement schools.
- The EKT system enabled increased interaction during placements, even when placement schools were far from the University.
- The project facilitated cooperation and shared learning experiences among academic mentors.
- However, transforming academic and school mentor culture is also required to enable effective collaboration.

## 6.4. User Experience

- Users primarily accessed the EKT system via the desktop version, as completing activities and reflecting required more time and focus than mobile devices allowed.
- The mobile app usage was limited mainly for quick communication such as instant messaging, reading, sending messages with mentors or peers.
- Future app development should prioritize features that facilitate instant interaction and communication on mobile devices.
- Addressing a number of small technical issues with the desktop and app versions of the EKT platform would improve the user experience and increase the platform's feasibility.
- The feedback suggests that not all functionalities of the EKT system need to be included in the mobile app, but rather those oriented towards instant interaction from mobile devices should be prioritized.

## 6.5. Technical Considerations

- Integrating the EKT system with institutional databases is a key challenge due mainly to data protection and security issues which complicated user onboarding.
- Participants would like to see the EKT platform being further integrated with existing tools, such as Moodle and MS Teams, to facilitate use and adoption.
- Integrating the EKT System with institutional databases would enhance user onboarding and experience.
- Activation and registration of users in the EKT System were rather complex as there was no possibility to connect the EKT Platform with the databases of the academic institutions.

## 6.6. Pedagogy and Instructional Design

- The EKT methodology and approach positively impacted student teachers' perceived knowledge, fostering action-oriented reflection and critical reflection.
- The project encouraged reflective practice and facilitating communication among participants, and this supported peer learning and inquiry into teaching.
- Streamlining instructions and refining language in the online course would enhance the learning experience for participants.
- Allowing academic coordinators and mentors to adapt the platform to their specific needs and contexts would increase its usefulness and relevance.

## 6.7. Challenges and Areas for Improvement

- Integrating the EKT System with existing virtual campuses, especially after COVID-19 adaptations, presented a challenge for continuous innovation.
- Adapting mentor cultures and providing sufficient time resources are crucial for effective collaboration.
- Engaging school mentors remains challenging due to varying roles and time constraints.
- Varying schedules of in-school placements created coordination challenges among multiple agents.

Overall, the EKT system is recognized as a beneficial tool for enhancing the in-school placement experience and promoting reflective learning among student teachers. The feedback highlights areas for improvement, such as better integration with institutional databases, adaptation to varying schedules, and optimizing the mobile app for the most relevant functionalities.



## Project Partners

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