



The PreEdTech Project: Shaping the Future of Early Learning

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Abstract

The paper is a study of the PreEdTech project, which stems from the COVID-19 pandemic institutional approach implemented by the EuroED kindergarten and primary school, Iasi, Romania, and completed by other experiences and challenges undergone by kindergarten educators from several European countries: Romania (EuroEd and Sfantul Sava), Lithuania (Sviesa) and Turkey (Anafartalar) as well as three non-profit associations with a focus on education from Lithuania (Emundus), Spain (XANO), Italy (Pixel) and a private tech company from Italy (Connectis). When classes were suddenly transferred online, nobody was ready. Worldwide, educational institutions and authorities responded to the COVID19 pandemic in diverse ways. This left few options available to children, parents, and educators, depending on the expertise or experience of the teachers as well as on the available community resources. One of the main problems, though, was that children in kindergarten were left behind as students aged seven and higher were the intended audience for the educational process supported by the education authorities. The project aims to strengthen the profiles of kindergarten educators, empower and equip them with digital and pedagogical skills, as well as provide them with essential and logically structured open educational resources (OER), which given the current challenges of distance and digital teaching and learning are necessary for the developmental needs of preschool children. The project assists teachers in implementing cutting-edge instructional techniques that are relevant to the digital transformation of school culture. The paper focuses on one of the project's results – the lesson plans addressing teachers teaching English as a foreign language to very young learners.

Keywords: online teaching, kindergarten teachers, children, lesson plans

1. The European Context

During the CoV-2 pandemic, schools and kindergartens were forced to close. As a result, classes were suddenly transferred online, catching everyone off guard. The response to the COVID-19 pandemic varied among educational institutions and authorities worldwide, leaving few options available to children, parents, and educators. The effectiveness of the response depended on the expertise and experience of the teachers, as well as the availability of community resources. One of the main problems, though, was that children in kindergarten were left behind as students aged seven and higher were the intended audience for the educational process supported by the education authorities [1].

Pre-primary teachers were constrained on the one hand by their students' age-related communication and interaction problems, which necessitated constant parental assistance, and on the other by the lack of online resources and training [2, 3]. Furthermore, despite the fact that these children were raised in the digital age and that their parents routinely used the internet and mobile devices as "modern pacifiers," there was still a common belief that young children should not use technology or the internet.

2. The EuroED Primary School's Institutional Approach to Covid Preschool Education

The PreEdTech project aims to provide much-needed assistance to kindergarten teachers, and it takes inspiration from the institutional approach to Covid-19 preschool education adopted by EuroED primary school between March 2020 and April 2021, along with the valuable lessons learned by its teachers. Early development work was done at the EuroEd primary school with the purpose of transferring instructional techniques and materials to the online environment and preparing those involved in the teaching-learning effort for a new process and set of tools. Parents were given information about the teaching process and their potential involvement in it, teachers benefited from technical explanation



materials and pedagogical training activities, and children were given a high-quality set of materials and activities, designed and delivered via digital means [4].

Parents' and children's positive feedback on the caliber of digital instruction was encouraging, as reflected by the results of a survey that the parents completed. Almost all of them agreed that the EuroED primary school's online instruction is of excellent quality, largely as a result of the teachers' enhanced skill sets and the clear explanations, instructions and support they gave to the parents throughout the distance learning period. As part of the process for preschool and primary school didactic degrees, this endeavor also involved the classroom observation of didactic activities carried out by EuroEd preschool teachers in March 2021 and the feedback for these activities provided by the Iasi school Inspectorate and education specialists from the Cuza University. This has encouraged us to continue and share our work with a view to perfecting it and creating a learning community which is open to helping and finding solutions to problems that may arise [4].

3. The PreEdTech Project

3.1 The PreEdTech Project's Objectives

The PreEdTech project (Improving the Pedagogical and ICT Skills of PreSchool Teachers and Educators in the Digital Era), co-funded by the European Commission under the Erasmus+ Programme, Cooperation partnerships in school education (Ref. no.: 2021-1-RO01-KA220-SCH-000027894) aims to strengthen the profiles of kindergarten educators, empower and equip them with digital and pedagogical skills, as well as provide them with essential and logically structured open educational resources (OER), which given the current challenges of distance and digital teaching and learning are necessary for the developmental needs of preschool children. The project assists teachers in implementing cutting-edge instructional techniques that are relevant to the digital transformation of school culture [1].

3.2 The Project's Partnership

The project's challenging objectives required the viewpoints and background knowledge and contribution of a diverse group of partners. The partnership is made up of eight educational institutions that quickly adapted to remote learning and share a variety of field experiences, particularly in the context of COVID-19. The consortium for the project is made up of four kindergartens: EuroEd and Sfantul Sava from Romania, Sviesa from Lithuania, and Anafartalar from Turkey. It also includes three non-profit organizations with a focus on education: EMundus from Lithuania, XANO from Spain, Pixel from Italy, and a private tech company: Connectis from Italy. All institutions have kindergartens, are associated partners and are eager to enhance teaching quality by incorporating contemporary tools and resources that engage and motivate children [1].

3.3 Target Groups

Preschool teachers, principals, parents, and children are the project's target audience. The rationale behind selecting these particular teachers as the target group is that they have less access to internet materials, tools, guidelines, and general resources than teachers at higher levels do. For online education to be successful, parents are essential. They are crucial in reaching out to and involving preschoolers in activities. Lack of parental involvement, technical restrictions, and unfavorable opinions (e.g., distance learning is ineffective compared to traditional learning, young children may have health issues due to increased screen time and limited physical activity) can all affect the learning process [1].

3.4 The PreEdTech Project's Main Results

The project consortium's diverse team of teachers, trainers, and technological experts determined the main topics and their subtopics that made up the content of the project's main results: *The Teaching in the Digital Era Guide*, *The Teaching in the Online Era Course* and *The Online Interactive Annual Plan Handbook* [1].

The main output, *The Teaching in the Digital Era Guide*, examines practical strategies and tools for online instruction with a focus on the pedagogical techniques and strategies needed to support online instruction (contains unitson online teaching principles, student motivation, online assessment, class management, lesson planning, and wellbeing). The second section discusses the technological aspects of online instruction, including skills and advice, account creation, managing an online classroom, adjusting settings, ensuring security, producing digital resources, using interactive platforms, etc. The final part



looks at issues relating to parental and child online safety.

In contrast to the Guide, which contains a theoretically comprehensive approach to online education, the *Teaching in the Online Era Course* puts theory into practice and shows how it may be used as part of the primary areas taught in preschool (Mathematics, Environmental Education, Language and Communication in the children's mother tongue and in English).

The Online Interactive Annual Plan Handbook provides teachers with four annual curricula addressing five to six year-old children for mathematics, environmental education, language and communication (mother tongue and English). It also comes with lesson plans for 30 weeks for each subject (a total of 120 lesson plans) and relevant digital resources. Thus teachers are equipped with all the tools they require in one pack, lesson plans, tips, resources and the materials needed to implement a one-year preschool curriculum [1].

4. Teaching English Online to Preschoolers

4.1 Young Children's Profiles

In elaborating our work we took into consideration several characteristics of the very young learners as well as the existing context in each country.

The very young children are kinaesthetic learners who enjoy being active and moving around, which recommends the extensive use of movement exercises. They also have extremely limited attention spans; a six-year-old child's attention span ranges from 12 to 30 minutes on average. Because of this, weekly sessions should be more frequent and online lessons should last thirty minutes. Very young children are quickly bored, so the teacher must plan numerous exercises for the same learning objectives.

Due to their spontaneity and lack of fear of making mistakes, children are less shy than older students. They are good at listening carefully and imitating, therefore it is crucial that the teacher sets a high standard for language use. Young children also enjoy learning through play, acting, making, and doing, but especially by exploring and discovering. They comprehend language as a whole, not as individual words. Instead of learning directly, they learn indirectly by interpreting meaning without necessarily knowing each individual word. Young learners should always receive positive reinforcement for their accomplishments since they enjoy receiving praise and rewards and also because it creates positivism, motivating them to learn further. Finally, they grow every day in terms of their physical, mental, and conceptual development [6].

4.2 Online Teaching English of Preschoolers in Romania

Despite the fact that learning a foreign language at the pre-primary level is optional in Romania, an increasing number of kindergartens are offering classes in another language on a parent's request. In Romania, English, Spanish, French, and German are the most often taught foreign languages. Foreign language lessons in kindergartens last 15 to 30 minutes and occur once or twice a week, in classes of 10 to 15 children, depending on the age of the pupils. However, given that teachers must develop their own curricula and materials, teaching at this level can be quite difficult. There are even fewer resources and materials when it comes to online teaching. There are no structured guidelines as to how to teach very young learners online [5]. Thus, the project's results close a gap in Romania.

5. The Format of a PreEdTech Online Teaching Lesson Plan

The project provides teachers with lesson plans for 30 weeks for each subject (a total of 120 lesson plans) and relevant digital resources. The online teaching lesson plan that the project promotes comprises a few learning objectives, visual or audio materials, step-by-step activities to meet the objectives and are based on information about the children (Figure 1 A lesson plan).



Fig. 1 A. Lesson plan

The plan takes into account children’s levels, needs and preferences. Its structure is simple (e.g. a lead-in/icebreaker, input, controlled practice, freer practice and assessment). All activities meet the learning objectives.

The teacher is invited to ask the following questions to check the quality of the plan:

- What do I want the children to achieve by the end of the lesson?
- How will I present the new material? What tools will I use? Why am I using the computer/a particular multimedia system?(PowerPoint/ audio/ / images/ Word doc/ book)
- Who/ when/ how will my children interact with during the lesson?
- How will I check my children’s answers to the different activities?
- What resources will I use?
- How long will each stage take?
- Do I have a plan B in case the technology fails?

5.1 The Learning Objectives

The learning objectives focus on children’s performance, that is on what children should know and do at the end of the lesson. The learning objectives are appropriately challenging and aligned with the curriculum standards. They use friendly and appropriate language so they can be clearly communicated to and understood by children (Figure 2 Samples of learning objectives).

Fig. 2. Samples of learning objectives

Myself	My kindergarten	Seasons and colours
<p>The children will be able to:</p> <ul style="list-style-type: none"> • Greet and answer greetings • Count • Introduce themselves (name, age) 	<p>Learning Objectives The child will be able to:</p> <ul style="list-style-type: none"> • identify, recognize and name different tools/objects they use in kindergarten 	<p>Learning Objectives The child will be able to:</p> <ul style="list-style-type: none"> • Identify/name the seasons • Identify/name colours • Use vocabulary related to seasons
<ul style="list-style-type: none"> • Say what their favourite colours are • Talk about their likes or dislikes 	<ul style="list-style-type: none"> • say hello, good morning and goodbye and use them in conversation • Recognize/ identify/mime/name school activities. • Listen/follow/give instructions/orders (Stand up, sit down, clap your hands, turn around) 	<ul style="list-style-type: none"> • Sort the characteristic elements of the seasons • Ask and answer questions about seasons/colours - based on Natalia's story

5.2 Warm up Activities

Each lesson plan debuts with an intriguing and engaging warm-up activity meant to create a pleasant atmosphere, stir children’s curiosity and motivate them to engage in the lesson from the very beginning: a song, a poll/quiz on the topic, jumbledword/unclear picture – guess what it is, etc. The short and energetic activity is related to the topic of the lesson, activates prior learning and has relevance to children’s real-life experience. Thus, in the lesson the Meals of the Day, children are invited to listen to the song *I’m hungry* and sing along. This is also a good opportunity for children to revise the vocabulary related to food/ meals and relate it to their reality by talking about their preferences. Such activities also enable the teacher to elicit from children what they know about the topic and build on this information. Strategies to determine children’s prerequisite knowledge include questions or short quizzes, “KWL” (K – What do you already know?; W – What do you want to find out?; L – What have you learned?).



5.3 The Stages of the Lesson Plan

In the next stages children get more actively involved with the topic and explore the material with the teacher's guidance through interactive digital activities supported and followed by movement and discussion sessions. It is advisable to design activities in line with children's needs and preferences. The lesson plans aim at creating a fun online experience for children through visuals and interactivity by suggesting a range of activities — some static, some dynamic, challenging or easy, involving music, colourful images, videos, games and interactive animations/activities. Navigation around the digital activities is simple and easy based on clear instructions and teachers' modeling the activity. Whenever there is a lot of information in the lesson, teachers are advised to consider breaking it down into smaller modules so that children can digest information more effectively.

When selecting and organizing the instructional strategies/learning activities we considered children's needs and preferences as well as the sequence and organization of instruction (the optimal instruction strategies/learning activities for accomplishing the learning objectives, a variety of instructional strategies to increase child engagement and maximize learning, materials suitable for the age, prior knowledge and interest, time allotted for each activity, difficulties and alternatives to use if problems arise).

a. Incorporate visual, audio and video components in the learning activities to accomplish the learning objectives

Thus, all lesson plans incorporate visual, audio and video components: boards, flashcards, toys, pictures on the internet, emojis, infographics, and when applicable, objects/realia for children to examine and capture their attention and stay focused (for example, when teaching food, the learners can bring some food from their kitchen to discuss in the lesson). The lesson plans also comprise tips on how to use visuals, for instance, to help children remember important details and information or manage early finishers (examples of activities: ask questions about what they see in the image and their opinions; if you are teaching colors, you can ask them to find five blue things in the picture displayed on your screen).

b. Build teaching around physical movement.

The lesson plans also consider that children learn best while moving around. Thus, static 'sitting' activities (completing puzzles, labelling pictures, matching words and pictures or playing digital games) alternate with active 'moving' activities that help keep children engaged. Digital activities are accompanied by group or individual movement activities such as dancing or doing a quick scavenger hunt in their home (find three red things), using their bodies to repeat words while in different positions or making gestures at different stages in the class (for example, put your hands on your head when you have finished, or put up your hand to ask or answer a question).

c. The lesson plans also incorporate TPR activities, which are based on the physical response technique and combine language with actions. Many listening exercises require children to listen and move by carrying out instructions (such as "sit down," "stand up," or "touch your nose"), listen and select an image, listen and draw a picture, or listen and count the sequence of actions in a picture. Similarly, speaking exercises may include the use of songs, conversations, or chants that are accompanied by movement.

d. Make use of arts (songs, dance, drama and storytelling). The lesson plans promote numerous online dance and songs and videos that maintain engagement while helping children to retain or practice vocabulary.

e. Relate the lesson to children's experience. One of the effective online teaching strategies is to focus on what attracts a child the most. An ideal approach to teaching children is to know their interests by talking to them, discussing their hobbies, favourite TV or film characters, favourite colours, favourite animals, etc.

f. Include communicative activities related to the topic. Opportunities for meaningful communication between the teacher and children also help build a strong bond with children: If a teacher shares life experiences - like talking about your favourite food - children feel more connected with their teacher and get to know him/her well. It makes them feel that the teacher is one of them and that s/he loves sharing stories with them. In addition, talks are particularly important because they strike the right balance between digital and traditional teaching.

g. Partner with families and colleagues A strong partnership with parents and collaboration with colleagues are essential as far as online teaching/learning is concerned. During the COVID-19 pandemic parents' participation in their children's educational process was critical in supporting their children's preschool work and helping them with daily routines. And when teachers and parents became allies in supporting children's development and learning, they were even more effective. Teachers guided and mentored parents' involvement in children's learning activities, and also to provide psychological support. Thus, under the new circumstances the changes lead to better communication and collaboration between parents and teachers for effective and healthy functioning.



h. *Solid collaboration among teachers* is beneficial for teachers and learners alike. It provides opportunities for teachers to learn from and with each other on an ongoing basis. Collaborative teaching teams capitalise on each other's strengths, support each other's professional growth, debate ideas, and problem solve together. This creates synergy, allowing teams to achieve more than they would if teachers work independently.

5.4 Assessment in the Online Lesson

A lesson plan is not complete without an assessment component. At the end of the class, in the assessment stage, the children get the chance to show what they have learned and can use the information they have learned. Children feel proud and have a sense of achievement if they leave the classroom being able to ask, for example, a new question in English, say something about themselves or sing a song. The lesson plan includes activities that condense the main points of the lesson in a short dialogue, poem or song, which the child can take away and use whenever the case. These are repeated in different forms and formats throughout the school year so that they will stick in the child's mind and turn into automatic habits.

Recommendations invite teachers to observe and check each child when they are involved in activities, focus on what they need and help them to correct themselves and above all, make sure they feel comfortable and enjoy their success.

Teachers are also encouraged to use informal verbal formative assessment related to children's performance as they carry out their tasks (Listen-and-do/ Total physical response/ True&false/matching /spot the mistake tasks).

Positive comments about the children's work and efforts allow them to see that the teacher values their work. The teacher's feedback should be immediate, specific, positive. It should focus on performance, identifying weaknesses, involving children in stimulating activities to remedy problems and helping children self-correct (Are you sure the picture illustrates rain? What do you think?). Giving rewards to children helps promote positivity. They get encouragement and become more productive, thus learning and understanding effectively. Giving honors and gifts makes them proud and happy and motivates them to strive harder in the future. There are many ways to reward children in an online teaching environment (emojis, certificates or games).

5.5 Teachers' Feedback on the Lesson Plans

Twenty-five pre-primary teachers from each partner country contributed with their feedback on the lesson plans in June-July 2023. The teachers highlighted three challenges posed by online teaching to very young learners and appreciated the solutions the project's lesson plans suggested for them:

Online lessons are static and young learners get bored easily especially if required to sit and listen for a long time. To keep children interested, the project suggests using the TPR method and the arts and alternating dynamic "moving" activities with static "sitting" activities. Digital activities are accompanied by group or individual movement exercises like dancing or quick scavenger hunts. Another suggestion refers to the use of videos, pictures and songs; they can be a helpful tool when teaching English on condition they are comprehensible for children, age appropriate, meaningful, engaging and aligned with the learning objectives of the lesson.

Online lessons are not very communicative Time flies very quickly online and teachers spend a lot of time on introducing and practicing the language before engaging children in real communicative situations. However, each digital activity can create meaningful opportunities for conversations related to the topic and children's personal experience.

Online materials found on the internet do not always meet their needs All teachers appreciated the project's tutorials, which teach them in detail how to make the best use of the online tools and create their own digital materials tailored according to their children's needs and preferences.

Assessment in the online lesson is also challenging. Participants appreciated the assessment samples given in the lesson plans as well as the instructions accompanying them.

6. Conclusions

Teaching young learners online can be challenging. However, all participants agreed that the project's results provide teachers with all the elements and steps necessary for successful activities, ensuring that the children are engaged and happy during the online lessons.



Thus, the PreEdTech project satisfies the requirements of both partners and target audiences. Concerning the management of online learning and teaching processes, they believe that the project's lesson plans:

- have given teachers and kindergartens trustworthy online lesson models that can be customized to their context.
- have increased and varied the learning activities that teachers use with preschoolers.
- offer a variety of resources, advice, and practical exercises for teachers to utilize with children.
- have given teachers new teaching methods and exercises aimed at children who, for medical reasons, cannot attend daily face-to-face courses.
- have increased teachers' understanding of the best ways to convert offline information for an online course.

The project's result may contribute to the evolution of a new type of teacher who is child-centered, more equipped to handle difficulties, and who successfully and imaginatively integrates technology, pedagogy, and content effectively and creatively [1].

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