ICT4EDU:

Enhancing ICT Competencies of Early Childhood Educators at HEIs in MENA Countries

ERASMUS+ PROGRAMME
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Author(s)	Prof. Stefano Cobello		
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WP Leader	UNIPD		
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Contents

Abbreviations

D= Deliverable

ECE= Early Childhood Education

ECTS= European Credit Transfer System

EACEA= European Education and Culture Executive Agency

HEI= Higher Education Institute

ICT= Information and Communications Technology

M= Month

MS= Milestone

OER= Open Educational Resources

QEC= Quality Evaluation Committee

WP= Work Package

Abbreviations of partner institutions

P1 -UJ University of Jordan

P2-INU Irbid National University

P3-MU Mutah University

P4 -AZHU Al-Azhar University

P5-SCU Suez Canal University

P6 –HU Heliopolis University

P7 -PTUK Palestine Technical University - Kadoorie

P8 -PTC Palestine Technical College –Deir Elbalah

P9-PASS Al-Istiqlal University

P10 -UB University of Bucharest

P11-IPP Polytechnic Institute of Porto

P12-UniPd University of Padova

Executive summary

This document is the mid-term report produced by the External Evaluator of the Erasmus+ Project "Enhancing ICT Competencies of Early Childhood Educators at HEIs in MENA Countries" (ICT4EDU) Project Number 101083078. This External Evaluation report is part of the project's Work Package 6: Quality Control and Monitoring, led by University of Padova.

The External Evaluation report is intended to draw a clear map and suggestions and whenever possible to assess the project's data analysing the present and past processes undertaken leading to the project's results reached up to the half of its implementation. (M18). This report covers the general project implementation and the results of the Work Packages, except WP3 Curricula Development, identifying strengths or potential threats to the successful achievement of the project's objectives.

This document provides a comprehensive evaluation of the ICT4EDU project, structured into four key sections to present a detailed analysis of its implementation and outcomes:

- Part 1: introduces the external evaluation process and offers an overview of the ICT4EDU project. It outlines the project's objectives and expected results.
- Part 2: the Logical Framework Matrix (LFM) is presented, detailing the project's specific objectives and the methods used to assess their achievement. The LFM serves as a tool to systematically evaluate the project's progress against its planned objectives, providing a clear framework for measuring outcomes and impacts.
- Part 3: offers an in-depth analysis of how the various Work Packages (WPs) have been implemented, with the exception of WP3. It examines the activities carried out under each WP, the results achieved, and how these contribute to the project's overall objectives. The section highlights key accomplishments and identifies areas where further work may be needed.
- Part 4: presents the conclusions drawn from the evaluation. It summarizes the key findings, assesses the overall effectiveness of the project, and provides recommendations for future improvements. The conclusions reflect on the success of the project in meeting its objectives and the impact of its outcomes on the targeted educational institutions.

1. Introduction

The External Quality Evaluation Report has relied primarily on reports and outputs prepared within the ICT4EDU Project, which were made available to the evaluator at the beginning of June 2024. In addition, a number of discussions were held with key project staff in Jordan and Italy. In summary, the following sources were used for this evaluation work:

1) Project application form;

2) General presentation of the project structure;
3) First year progress report and other reports;
4) Minutes of the project meetings (online and in presence);
5) Capacity building plan (Work Package 4);
6) Final list of equipment (Work Package 5)
7) Access to progress quality report (Work Package 6);
8) Dissemination plan (Work Package 7)
9) An overview of public facing on-line material, i.e. Project Web Page and Facebook Page;
10) Discussions with some project participants

The limitations that might be identified in this evaluation report are directly linked to the availability of data, particularly where they are difficult to quantify within the project lifetime. These limitations, when present, are discussed in each relevant sections.

1.1 Project objectives and expect results

The main **objective** of the project is _to enhance the quality of ICT competencies of early childhood teacher's educators in the 9 higher education institutions in Jordan, Palestine and Egypt in line with advance EU practices, thereby enhancing the quality of the education in pre-schools in Jordan, Palestine and Egypt._

More specific objectives were designed to contribute to this wider goal.

1) To Identify the student teachers' levels of digital competence when entering teacher education and compare across institutions.
2) To develop new teaching and learning methodologies and ICT support tools in classrooms, including e-learning Educational Resources, to be able to use technology, in designing, producing and using ICT-based instructional materials.
3) To identify, test and mainstream best practices and innovative methods of participation particularly in context of Early Childhood Education (ECE) and digital competences.
4) To enhance professional competences and skills of teaching staff through train of trainers workshops in contemporary pedagogical approaches, methodologies and educational technologies; learn from the experiences of colleagues from other countries in Europe.
5) To improve the integration and interaction of the different components of the system (children, practitioners, researchers, families, community).
6) To deliver new/updated ICT-based courses in psychology, pedagogy, methodology of teaching, and technology enhanced learning at the Higher Education Institutions (HEIs) of the involved programme countries; as well as implementing the curricula through accreditation and employment of students.
7) To ensure access to the latest developments in ICT to provide physical infrastructure and technical support that will make ICT accessible and useful to students, teachers, administrators and support staff.
8) Dissemination of the results obtained among Jordanian, Palestinian and Egyptian HEIs stakeholders.

9) Share materials and teaching activities for teachers through online toolkit, workshops, seminars and conferences.

ICT4EDU is aiming to produce the following **expected results**:

	Result	Project action(s)
1	Teachers and students will be better equipped and more confident to use innovative ICT methods in their everyday teaching context.	Establishing 9 ICT labs in partner countries. Training workshops in EU. In house training workshops. Updated curricula with integration of ICT in the courses.
2	Teachers and students will increase their knowledge, understanding and skills in using ICT including multimedia applications, the use of video, virtual learning environments	Selected videos and tutorials will be uploaded to the web platform, student and teachers can easily access and select the desired topic of videos.
3	36 Teaching staff and 18 technicians and 18-36 students will be trained on innovative digital methods and ICT based interactive and e-learning technologies in program countries to have increased understanding of digital teaching methodologies	The Project places a strong emphasis on capacity building of a wide cohort of teaching staff by utilizing a multiplier effect via "train the trainer" initiative. The trained trainers will adapt and deliver newly developed courses to over university teachers in their respective HEIs
4	9 technology-enhanced (In house) teacher training (TOT) in each institution, to be conducted at each partner institution, for a total of about 720 staff to be trained.	Development of Current study plan and courses and injection of ICT tools within the updated curricula
5	4-5 ICT-based courses at each partner institution will be updated and restructured. (40 in total) according to Bologna process (in total 40 courses for undergraduate level will be updated, accredited and adapted into the study plan, which equals to 200 ECTS).	Development of Current study plan and courses and injection of ICT tools within the updated curricula.
6	Design 3 mutual e-courses on ICT competences.	Offer the e-courses on the free e-learning platform: 1) ICT and the 21st Century Pre- School Education 2) ICT Skills in Practical (Project-based learning) 3) Design and Develop web-based teaching materials

7	Design of a mutual obligatory course deals with ICT for, children with learning difficulties and disabilities.	This course will be accredited within the core courses at the faculty of education.
8	Elaborate an e-learning platform with new digital resources supporting courses development.	Suitable e-learning platform will be launched to offer open educational resources for staff and students. Open access website in the development phase
9	Create a website to disseminate information on the project; partners and activities will be designed and operated to be made accessible by the public including disabled person	Lunching open access website

Table 1 – Results and project actions

In part 2 the specific objectives are analyzed within a Logical Framework Matrix (LFM) with their related results and Work Packages to identify the extent to which they have been met up to this phase of the project, using available data.

2. Analysis of the Logical Framework Matrix

2.1 Logical Framework Matrix

A Logical Framework Matrix (LFM) has been developed to identify the wider objectives to which the project was expected to contribute and assess their achievement. This analysis is presented thematically and cross-cuts work packages. A LFM specifies project outputs and outcomes and identifies measurement for assessment, while the proposal did not specify a clear link between the project objectives and the expected results, this presents an opportunity to further define and align achievement criteria for each objective. Additionally, establishing quantitative and qualitative KPIs for the majority of the WPs will enhance the project's clarity and focus on success criteria."

  Thus the LFM has been created in the process of evaluation, linking the expected results and the WPs. To support the coordinator in the assessment of the success of the project's implementation, there have been suggested potential KPIs for each operational WP.
In assessing the project against the criteria set out in the LFM, it is important to bear in mind that the project is in its first half and that we can assess only if the preparation phase has been effective to put the basis for the extensive implementation of the activities and the reaching of the final goals.

For the purpose of analysis, the specific objectives have been divided into 5 general conceptual areas of impact that can be connected to the objectives, the results and the related WPs as in the following table:

General area of impact	Specific objective	Expected results	Related WPs or specific Tasks	Deadline for implementation
Identify and develop **tools and materials** that support target groups' **competences about ICT in ECE**	1. To identify the student teachers' levels of digital competence when entering teacher education and compare across institutions.		WP2 – Preparation In particular: - Task 2.1: In-depth Survey on State of art of ICT in ECE - Task 2.2: In-depth Survey on Teachers and Students Digital Competences.	M6 – June 2023
	2. To develop new teaching and learning methodologies and ICT support tools in classrooms, including e-learning Educational Resources	R2 Teachers and students will have increased their knowledge, understanding and skills in using ICT including multimedia applications, the use of video, virtual learning environments	WP3 – Curricula development	Starting by M17 – May 2024 up to the end of the project
			Task 7.4 E-learning platform - to offer open educational resources for staff and students	M12 – December 2023
Development and implementation of **course or curriculum innovation in ECE using new technologies**	3. To identify, test and mainstream best practices and innovative methods of participation particularly in context of Early Childhood Education (ECE) digital competences.	R1 - Teachers and students will be better equipped and more confident to use innovative ICT methods in their everyday teaching context.	WP2 – Preparation [in particular: Task 2.2: In-depth Survey on Teachers and Students Digital Competences.]	M6 – June 2023
			WP5: Development of the ICT Lab to Support the New Curriculum.	M24 – December 2024
		R7 - Design of a mutual obligatory course that deals with ICT for children with learning difficulties and disabilities. Accredit it in the Program Countries	WP3: Curricula Development	Starting by M17 – May 2024 up to the end of the project
			WP4: Capacity Building and Training Workshops	Starting by M16 – April 2024 up to

		HEIs.		M34 – October 2025
Improve the capacities, knowledge and skills through **exchanges, training and co-development work**	4. To enhance professional competences and skills of teaching staff through train of trainers workshops in contemporary pedagogical approaches, methodologies and educational technologies; learn from the experiences of colleagues from other countries in Europe.	R3 - About 36 Teaching staff, 18 technicians and 18-36 students of ICT4EDU will be trained on innovative digital methods and ICT based interactive and e-learning technologies in program countries to have increased understanding of digital teaching methodologies R4- 9 technology-enhanced (In house) teacher training (ToT)/institution, will be conducted at each partner institution, in total about 720 staff will be trained.	WP4: Capacity Building and Training Workshops	Starting by M16 – April 2024 up to M34 – October 2025
	5. To improve the integration and interaction of the different components of the system (children, practitioners, researchers, families,			

		community).		
Improve **ICT-based training proposals** for HEI	6. To deliver new/updated ICT-based courses in psychology, pedagogy, methodology of teaching, and technology enhanced learning at the PC HEIs in line with the modern European strategies; as well as implementing the curricula through accreditation and enrolment of students.	R5 - 4-5 ICT-based courses at each partner institution will be updated and restructured according to Bologna process. In total 40 courses for undergraduate level will be updated, accredited and adapted into the study plan, which equals to 200 ECTS.	WP3: Curricula Development.	Accreditation of the new curricula by M14 – February 2024
		R6 - Design 3 ICT competences courses on the free e-learning platform. 1) ICT and the 21st Century Pre- School Education 2) ICT Skills in Practical (Project-based learning) 3) Design and Develop web-based teaching materials	Task 7.4 E-learning platform - to offer open educational resources for staff and students	M12 – December 2023
	7. To ensure access to the latest developments in ICT to provide physical infrastructure and technical support that will make ICT accessible		WP5: Development of the ICT Lab to Support the New Curriculum	M24 – December 2024

		and useful to students, teachers, administrators and support staff			
Wide **dissemination, networking and sustainability**	8. Dissemination of the results obtained among Jordanian, Palestinian and Egyptian HEIs and stakeholders	R9 - The website aims to disseminate information on the project; its partners and activities will be designed and operated to be made accessible by the public including disabled persons	WP7 Dissemination and Exploitation	M3 – March 2023
	9. Share materials and teaching activities for teachers through online toolkit, workshops, seminars and conferences.	R8 - As a result of the Project implementation, e-learning platform will be elaborated, with new digital resources supporting courses development.	Task 7.4 E-learning platform - to offer open educational resources for staff and students	M24 – December 2024

Table 2 – Logical Framework Matrix

2.2 Identify and Develop Tools and Materials that Support Target Groups' Competencies in ICT in ECE

The primary focus of this area is concerning the process of assessing current competency levels, developing new teaching methodologies, and creating ICT support tools tailored to the needs of both teachers and students. Thus, it is connected to the Specific Objective of (1) identify the digital competence levels of student teachers when entering teacher education and compare these competencies across different institutions. This initial stage is fundamental to (2) develop new teaching and learning methodologies and ICT support tools for classroom use, including e-learning resources.

The expected outcomes leading to the achievement of these objectives include a comprehensive understanding of the current state of ICT competencies among student teachers and the development of effective ICT-based teaching tools and methodologies. Teachers and students are expected to have increased knowledge, understanding, and skills in using ICT, including multimedia applications and virtual learning environments.

Related Work Packages and Specific Tasks:

- WP2 – Preparation:
  - Task 2.1: In-depth Survey on the State of Art of ICT in ECE (Curriculum Verification)
  - Task 2.2: In-depth Survey on Teachers and Students Digital Competences
  - Task 2.3: In-depth Survey on available facilities and resources at EC departments.
  - Task 2.4: Analysis of surveys' results and elaboration of final Reports.
- WP3 – Curricula development *(not included in this analysis)*
- Task - 7.4 E-learning Platform

During the initial phase of the project, preliminary analyses were conducted by all participating partners. These analyses facilitated the definition of specific needs and established shared objectives for the project. The in-depth analysis addresses the status of ICT integration in Early Childhood Education curricula, identifying competencies that need further development, and evaluating the latest innovations and technologies in ICT for ECE, with a particular focus on sustainable development.

Three comprehensive analyses have been undertaken collaboratively by the partners. The investigative process utilized various methods, including Desk Research (literature reviews of ICT in ECE); Surveys (addressed to student teachers, educators, and other stakeholders); Interviews with relevant stakeholders. The findings from these activities have been compiled into a final report, which highlights areas where further development is needed and recommends best

practices and innovative methods for integrating ICT into early childhood education. The findings have been submitted for publication.

The E-learning platform aims to provide a repository of resources and tools that will support the development of ICT competencies among teachers and students once operational. This initiative is crucial for ensuring that the project's objectives are met and that both teachers and students are equipped with the necessary skills and knowledge to effectively utilize ICT in their educational practices**. Although the E-learning platform, intended to offer a proper open educational resources space for staff and students, it is not yet fully completed.**

2.3 Development and Implementation of Course or Curriculum Innovation in ECE Using New Technologies

The general aim of this area is to enhance teaching and learning experiences by integrating advanced ICT methods, thereby equipping teachers and students with the necessary skills to use these technologies effectively. It is connected to the Specific Objective (3) to identify, test, and mainstream best practices and innovative methods of participation, particularly in the context of ECE digital competencies. This includes creating and implementing courses that leverage new technologies to improve educational outcomes.

The expected results of these activities include teachers and students being better equipped and more confident in using innovative ICT methods in their everyday teaching contexts.

One significant result expected from these activities is the design and accreditation of a mutual obligatory course on ICT for children with learning difficulties and disabilities. This course aims to be part of the core curriculum at the faculty of education, ensuring that future educators are equipped with the knowledge and skills to support diverse learners using ICT.

Related Work Packages and Specific Tasks:

- WP2 – Preparation:
    ◦ Task 2.2: In-depth Survey on Teachers and Students Digital Competences
    ◦ Task 2.3: In-depth Survey on available facilities and resources at EC departments.
- WP3: Curricula Development *(not included in this analysis)*
- WP4: Capacity Building and Training Workshop
- WP5: Development of the ICT Lab to Support the New Curriculum

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The In-depth Survey on Teachers and Students Digital Competences (T2.2) allowed the Consortium to identify competencies that need further improvement in order to develop the curricula (WP3) and the Capacity building activities (WP4)

The development of ICT labs to support the new curriculum (WP5) involved creating a detailed list of necessary equipment, such as computers, smartboards, projectors and other relevant materials to ensure a proper creation of ICT labs. These labs are essential for implementing the

new curriculum and supporting the integration of ICT in teaching practices. A biannual monitoring report table has been prepared to oversee the setup activities and ensure the effective use of the labs.

Furthermore, a structured capacity-building plan (WP4) was initiated to enhance the skills and competencies of university professors, technical assistants, and students. The initial activities included developing a comprehensive Capacity Building Plan that defined objectives, roles, responsibilities, and processes for the project's successful implementation. This plan encompassed guidelines for workshops and mobility, selection criteria for participants, and the preparation of syllabus and work plans for academic and technician workshops.

2.4 Improve the Capacities, Knowledge, and Skills Through Exchanges, Training, and Co-development Work

This area focuses on enhancing the professional competencies and skills of teaching staff, technical assistants, and students through structured exchanges, training workshops, and collaborative development efforts. By learning from the experiences of colleagues in Europe and participating in contemporary pedagogical approaches and educational technologies, participants are expected to significantly improve their capabilities. The actions in this area will support the achieving of the specific objective to (4) enhance the professional competencies and skills of teaching staff through train-the-trainer workshops that focus on contemporary pedagogical approaches, methodologies, and educational technologies, and to learn from the experiences of colleagues from other European countries.

The expected results include training about 36 teaching staff, 18 technicians, and 18 to 36 students on innovative digital methods and ICT-based interactive and e-learning technologies. Additionally, 9 technology-enhanced (in-house) Training Of Trainers sessions will be conducted at each partner institution, ultimately training about 720 staff members in total.

Related Work Packages and Specific Tasks:
- WP4: Capacity Building and Training Workshops

To achieve these objectives, in Task 4.2 the Consortium has started the activities to organize visits and training sessions for academic staff and technicians to EU partner institutions. 60 participants, including researchers, teachers, and technicians, have been selected based on predefined criteria. These training workshops, each lasting five days, are meticulously planned with tailored materials to meet the specific needs of the participants. The first workshop is scheduled to take place in Porto, Portugal, from July 8-12, with a detailed syllabus and an infopack on logistics shared with the partners. MENA partner institutions have been asked to report on their selection process to ensure transparency and adherence to the established criteria.

This comprehensive approach ensures that the participants are well-equipped to implement innovative educational technologies in their respective institutions, thereby enhancing the overall quality of education provided.

2.5 Improve ICT-based Training Proposals for HEI

This area aims to deliver new and updated ICT-based courses in psychology, pedagogy, methodology of teaching, and technology-enhanced learning at Programme Country HEIs. The goal is to align these courses with modern European strategies and ensure their implementation through accreditation and student enrollment.

The expected results include to update and restructure according to the Bologna process 4-5 ICT-based courses at each partner institution (totaling 40 courses). These updated courses will be accredited and adapted into the study plans, equating to 200 ECTS in total. Additionally, 3 ICT competence courses will be designed for a free e-learning platform, covering topics such as 21st Century Pre-School Education, ICT Skills in Practical (Project-Based Learning), and the Design and Development of Web-Based Teaching Materials.

Related Work Packages and Specific Tasks:
- WP3: Curricula Development *(not included in this analysis)*
- Task 7.4: E-learning Platform

WP3, addressed to curricula development, is not part of this evaluation and the e-learning platform (T7.2) is still under development, thus is not possible to properly assess and provide feedback on the achievement of these specific objectives of the project.

2.6 Wide Dissemination, Networking, and Sustainability

This area focuses on the broad dissemination of the project's results, the establishment of strong networks, and the promotion of sustainability. It also aims to share materials and teaching activities for teachers through various platforms, ensuring that the project's impact extends beyond its initial implementation. This area supports the achievement of two specific Objectives: (8) Dissemination of the results obtained among Jordanian, Palestinian and Egyptian HEIs and stakeholders and (9) share teaching materials and activities with teachers through online toolkits, workshops, seminars, and conferences.

The expected outcomes include increased awareness of the ICT4EDU project among target groups, enhanced collaboration between partner institutions, and the provision of valuable resources to support teaching activities. The project aims to establish a robust online presence and create a comprehensive repository of digital resources accessible to educators and stakeholders.

Under WP7, the project has implemented various strategies to ensure wide dissemination and networking. A Dissemination Committee with representatives from each partner institution was established to coordinate these efforts. A Dissemination Plan that outlines strategies for sharing project information, ensuring sustainability, and addressing potential risks has been developed. This plan targets universities, staff members, teachers, students, and the broader community using diverse methods such as presentations, seminars, online webinars, social media, newspapers, and magazines.

To enhance the project's visibility, an interactive project website has been set up, providing detailed information about the project's objectives and activities. This website is regularly

updated with news, events, and achievements, ensuring continuous engagement with the wider academic community. Additionally, the project's social media presence has been set up in a Facebook page, which provide regular updates and facilitate interaction among stakeholders. Promotional materials, including the ICT4EDU logo, posters, brochures, and newsletters, have been developed and distributed to increase awareness and support dissemination activities. These materials help convey the project's goals and progress to a broader audience. Moreover, the development of the e-learning platform, still in progress, is a critical component of the project's dissemination and sustainability strategy. This platform will offer open educational resources (OER) for staff and students, including newly designed ICT competence courses.

3. Detailed analysis of the Work Package implementation

3.1 WP1 Project coordination

Work Package 1 (WP1) is dedicated to the overall coordination and management of the ICT4EDU project. The University of Jordan (UJ), is the project contractor and holds the main responsibility for this work package. UJ has appointed Prof. Ahmed Al-Salaymeh as project manager (PM) to oversee executive management, supported by a team responsible for financial, operational, and day-to-day activities. To ensure effective governance, a Project Steering Committee (PSC) has been established during the kick-off meeting, including one representative from each partner institution. The PSC meets biannually to review project progress, make necessary adjustments, and ensure collective decision-making through consensus voting.

The formal communication channels established include periodic coordination and status meetings, monthly virtual meetings via web conferencing, and regular email communication. A shared digital database and network drive facilitates information distribution. The project has started with an online commence with a kick-off meeting, followed by 3 In-Person Management Meetings and 12 monthly virtual meetings to monitor progress and address any issues and set precise deadline for the activities.

Objectives:
- Ensure an accurate and effective management on a daily basis
- Set up a project management team responsible for financial, operational and day-to-day management and keeping track records of all project activities.
- Create a Project Steering Committee (PSC) with responsibility of making ultimate decisions, to review the project progress and its performance and to make necessary changes if needed.
- Keep formal communication channels through periodic coordination and status meetings, and regular communication by e-mail and shared electronic database and a network drive to store and distribute information.
- Prevent conflicts through a detailed and careful distribution of responsibilities, tasks and

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the budget documented in bilateral contracts

Tasks:
- Task 1.1 - Kick-Off Meeting
- Task 1.2 - Steering Committee Establishment
- Task 1.3 -Technical and Scientific Committee Establishment
- Task 1.4 - Biannual progress reports
- Task 1.5 - Operational Staff (Financial Management)

Activities implemented and Results produced

o **Task 1.1 - Kick-off Meeting:**

The task has been implemented in 2 moments:

- On 16th January 2023, the University of Jordan hosted the initial part of the ICT4EDU project kick-off meeting via Zoom. The meeting began with welcome speeches from the project's general coordinator, Prof. Ahmed Al-Salaymeh, and other key university officials. Participants, including 55 representatives from partner universities in Jordan, Egypt, Palestine, Finland, Romania, Portugal, and Italy, introduced themselves and discussed their relevant ICT and early childhood education experience. The coordinator outlined the project's objectives, expected outcomes, and action plans, and introduced the work package leaders and co-leaders.

- The in-person kick-off meeting for the ICT4EDU project was held on 8-9 March 2023, at the University of Jordan Campus in Amman. There have been 37 partners participating in presence and 12 online. The different project's committees have been set up and the main decision about the project implementation in the following months have been taken.

- **Task 1.2 - Steering Committee**

It has been set up during the kick off meeting on 9th March 2023.
Internal regulations have been developed and signed by all the members of the committee.

- **Task 1.3 - Technical and Scientific Committee**

It has been set up during the kick off meeting on 9th March 2023.
Internal regulations have been developed and signed by all the members of the committee.

- **Task 1.4 - Biannual progress reports**

The information have been collected from the WP leaders and the progress reports have been regularly produced.

- **Task 1.5 - Operational Staff (Financial Management)**

D1.3 Partnership agreements has been signed by all the partners by June 2023. A sessions about financial management for partners has been conducted during kick-off meetings and in the following management meetings this aspect has always been considered.

- **Other Consortium Meetings**

- 12 online management meetings have been regularly implemented and properly reported through shared minutes.
- Second in presence management meeting (7-9/09/2023 Bucharest – Romania) The meeting was attended by 36 persons physically by partners from Jordan, Egypt, Palestine, Cyprus, Romania, Portugal and Italy. Each WP has been presented and it has been reached a general agreement on the actions to be taken to successfully implement each WP.
- Third in presence management meeting (13-14/02/2024 Cairo – Egypt) The meeting was attended by 58 persons (4 of them online) from all the project's countries. The discussion focused on the implementation of the WPs activities, setting deadlines and agreeing on the actions to be taken.

Conclusions and comments

WP1 is fully in progress. University of Jordan managed to meet all the foreseen milestone for this phase of the project: 2 session of kick-off meeting (MS1) have been organized in the first months of the project, online management meetings are taking place regularly (MS3), the progress reports are submitted every 6 months (MS4).
The regular project meetings and the presence of specific committees allowed a smooth implementation of the project and the quick solution of any possible problematic issue at its starting.

There has been a change in the Consortium that has been well managed by the coordinator. On 13th April 2023 University of Turku has informed the coordinator that the board of university has decided to discontinue the operations of the unit that should have been responsible for the project implementation. Therefore it has been decided about their withdrawal from the project. After a careful consideration and evaluation, on June 2023 it is decided (through a vote procedure) to choose Frederick university from Cyprus as substitute beneficiary with the same responsibilities as University of Turku. Frederick University has a long and well demonstrated experience in the project's fields.

Some of the project implementation issues were deeply linked to the situation in Gaza Strip and West Bank. The partners PTUK and PASS which are located in the west bank are progressing smoothly in the project despite the challenges especially in purchasing and installing the equipment. PTC which is located in Gaza had its facilities damaged by the war, also many of the students and staff lost their lives and homes and were displaced, therefore it was not possible for them to continue operating physically due to the desperate living conditions, however, they started implementing their teaching online where students can continue their education for free and the ICT4EDU project team (whom are now residing outside Gaza) have confirmed to us that they can implement the project through online teaching and they can participate in mobilities through staff which have fled Gaza. The main issue for them in implementing the project is their inability to purchase the equipment or establish a lab also they have challenges in financial issues especially the travel cost, cost of stay and the staff cost since they don't have access to the first installment

3.2 WP2 Preparation

WP2 has been led by Palestine Technical University - Kadoorie (PTUK - P7) with the support of Irbid National University (INU-P2), Mutah University Ltd (MU-P3), Suez Canal University (SCU-P5). WP 2 started in January 2023 and ended in September 2023.

This work package integrates the task to evaluate the current state of ICT utilization in Early Childhood Education among the beneficiary partners. It aims to assess the representation of digital resources in educational programs, identify the competencies required for educators and students, and evaluate the capacity of partners to use at the best their existing resources.

Objectives:

- Scoping the current situation of ICT utilization in ECE in the beneficiary partners including the extent of how the digital resources is represented in the study programmes.
- Identifying the real competences that have to be provided to teachers and students.
- Identifying the weakness and strengthen the curricula, verifying the Courses offered, what to update and what courses needed.
- Verify the facilities of partners to develop the existing resources
- Examine the ICT usage habits and the self-assessed ICT competencies possessed by undergraduate students in EC teacher preparation programmes as well as to investigate the level of competences and then needs of the teaching staff.

Tasks:

- Task 2.1: In-depth Survey on State of art of ICT in ECE (Curriculum Verification).
- Task 2.2: In-depth Survey on Teachers and Students Digital Competences.
- Task 2.3: In-depth Survey on available facilities and resources at EC departments.
- Task 2.4: Analysis of surveys' results and elaboration of final Reports.

During the preparatory phase of the project, preliminary analyses were conducted by all participating partners. These analyses facilitated the definition of specific needs and established shared objectives for the project. The in-depth analysis addresses the status of ICT integration in Early Childhood Education curricula, students' competencies that need further development, latest innovations and technologies in ICT for Early Childhood Education, considering especially sustainable development.

Three comprehensive analyses has been undertaken collaboratively by the partners. The investigative process has used different methods to produce the final report:

1) desk research,
2) surveys in both paper and online formats,
3) interviews with relevant stakeholders, including regional enterprises, government entities, and educational experts and advisors.

Additionally, a complementary survey has been designed and distributed to targets school teachers and principals to investigate their needs in order to offer ICT skills and competences for university
students and facility staff.

Activities implemented and Results produced

The actions of WP2 have to be considered concluded. The following paragraphs report the activities implemented in each task.

- **Task 2.1: In-depth Survey on State of art of ICT in ECE**

Task 2.1 involves an in-depth survey to assess the current integration of ICT in early childhood education across partner institutions. This survey evaluates the strengths and weaknesses in existing curricula, verifies the courses offered, and identifies areas for updates and new course development. The evaluation incorporates the courses proposed by each partner during the proposal preparation stage. As a result of this task, 464 responses have been collected among university staff and students and D2.1 State of Art of ICT in ECE (Curriculum Verification) document has been completed and published in M5.

- **Task 2.2 In-depth Survey on Teachers and Students Digital Competences**

Task 2.2 focuses on conducting an in-depth survey to assess the digital competencies of both teachers and students involved in early childhood education (ECE) teacher preparation programs. The objective of this survey is twofold: firstly, to evaluate the ICT usage habits and self-assessed ICT competencies of undergraduate students, and secondly, to determine the level of ICT competencies among the teaching staff and identify their specific needs. The findings from this comprehensive survey (with 449 answers) have been documented in the D2.2 Report on Teachers and Students ICT Competences, which was completed in the M5.

- **Task 2.3 In-depth Survey on available facilities and resources at EC departments**

Task 2.3 entails an in-depth survey to evaluate the facilities and resources available within early childhood education (ECE) departments at partner universities. This task involves verifying the existing resources through the distribution of questionnaires or conducting face-to-face meetings with relevant stakeholders within each partner university (95 answers collected). The objective is to build on these existing resources by performing a comprehensive gap analysis and identifying needs in terms of capacity building, infrastructure, and human resources. In general, the survey identified a range of issues as common barriers in using effective ICT: the lack of modern computers, lack of specialized educational software, technical problem-solving skills, teachers' attitudes towards computers use in teaching and learning, poor infrastructure, and the lack of teacher confidence toward using comprehensive ICT technologies in teaching and learning. D2.3 Report on Available Facilities and Resources at ECE Departments was finalized in M5.

- **Task 2.4 Analysis of surveys' results and elaboration of final Reports**

Task 2.4 focuses on the analysis of survey results and the development of final reports. All data

collected through interviews, written surveys, and online questionnaires have been thoroughly analyzed using SPSS software. The results from this scoping and needs analysis activity provide valuable insights into the most appropriate skills, practical applications, and training content to be integrated into the courses. These findings have been summarized in a comprehensive final report, which has been presented during project workshops and included in all survey reports. The D2.4 Final Report on the State of Arts and Competences was completed in M7.

PTUK, with the other beneficiaries involved in the WP, has developed from this report a research paper now in the process of publication.

Conclusions and comments

The WP2 has been positively concluded. The main milestone connected with the WP was to design a specialized questionnaire for higher education institutions in the partner countries and analyze the responses to accurately assess the current status of ethical courses and identify areas requiring improvement. The MS7 Design questionnaire and Collection responses has been reached.

The clear definition of quantitative or qualitative KPIs in the description of this WP would help the Coordinator to monitor the implementation of the WP and the reaching of project's goals.

- **Quantitative KPIs:**

- Number of resources investigated and geographical length of the desk research.
- Number of surveys submitted in each participating country (divided per each survey format)
- Stakeholder Participation: Number of regional enterprises, governmental bodies, education experts, and advisers interviewed.

- **Qualitative KPIs:**

- Assessment of ICT Integration: Evaluation of the current status of ICT utilization in Early Childhood Education curricula among beneficiary partners.
- Identification of Competences: Determination of the essential competences required for teachers and students.
- Adoption of Innovations and Technologies: Identification and integration of the latest ICT innovations and technologies with a focus on sustainable development.
- Effectiveness of Survey Methods: Quality and comprehensiveness of data collected through various survey methods (desk research, paper and online surveys, and interviews).

3.3 WP4 Capacity building and Training workshop

WP4 is lead by Polytechnic Institute of Porto (IPP- P11) with the cooperation of Heliopolis University (HU – P6) , Palestine Technical College -Deir Elbalah (PTC -P8) and Mutah University (MU- P3). Its activities started in March 2023 and will finish at the end of the project, therefore this WP is still in progress.

WP4 focuses on the development of a comprehensive Capacity Building Plan and the establishment of Selection Criteria for partners, including academic staff, technicians, and students. This work package foresees visits to European Union countries and the facilitation of academic workshops. The WP aims to contribute to the general objective to enhance the ICT skills of teaching staff and contribute to the development of early childhood education curricula through innovative and technology-enhanced methods.

Objectives
- Develop a Capacity Building Plan and establish Selection Criteria for participants.
- Facilitate visits and academic workshops in EU countries for partners.
- Conduct Training of Trainers (TOT) sessions for academic staff, technicians, and students.
- Enable trained trainers to adapt and implement in-house teacher training courses tailored to local needs.

Tasks:
- T4.1 Capacity Building Plan and selection criteria
- T4.2 Academic and Technician Visits to EU Partners:
- T4.3 Students' Visits to EU Partners
- T4.4 Academic workshops for transferring know-how and skills in the MENA partners' institutions

The first proposal of the Capacity Building Plan Report was planned to be introduced in the 12ᵗʰ month of the project, however it was proposed by the WP4 leaders to anticipate this plan to be introduced and discussed in March 2023, so that the training workshops could start earlier to have more efficient impact in the Project working time. With this purpose in mind a preliminary workflow was introduced in the first Project Meeting in the University of Jordan. In the second Project Meeting a refined version was presented and the first Workshop event for Academics and Technicians started to be structured to take place in July 2024.
D 4.1 Capacity Building Plan has been produced on October 2023 and progressively updated with the new indications for the capacity building and training workshops.

Activities implemented and Results produced
WP4 is in progress, the following paragraphs report the activities implemented in the 3 tasks that has started up to now.

- **T4.1 Elaboration of the Capacity Building Plan and selection criteria:**

The long-term capacity building program is designed to enhance the skills and competencies of university professors, technical assistants, and students. This task aims to clearly define the objectives, roles, responsibilities, and processes necessary for the successful implementation of the ICT4EDU project. Initial work has been implemented before the second project meeting to develop this plan and draft a comprehensive capacity building program concept that addresses the identified needs.
The Consortium has elaborated:
- Guidelines for the procedures to set up workshops and mobilities defined and approved by the Consortium (Templates for reporting Processes and Events related to the Capacity Building Activities have been created and approved by the Consortium)
- Selection Criteria for the call for participants in the Workshops (defined and approved by the Consortium)

- Syllabus and workplan for the first Academic and Technicians workshop (Template for the Workshop Syllabus have been created and approved by the Consortium)
- Mobility and Workshop workflow.

- **T4.2 Academic and Technician Visits to EU Partners**

This task involves organizing visits for academic staff and technicians to EU partner institutions. According to the plans, 2 participants (researchers, teachers, and technicians) from each MENA institution will take part in these 5-days visits tailored to meet the specific needs of the partner universities.

The main subjects to the addressed during the visits have been agreed: Developing Early Childhood Curricula; Enhanced ICT skills for Education; Pedagogical strategies for ICT in Education contexts (to be confirmed). The plan for the visits has been decided, starting from the first workshop on the 8- 12 July, in Porto (Portugal). The hosting partner has developed and shared an infopack including accommodation and travelling facilities, and cultural suggestions. MENA partners' institutions has been required to report about the selection process.

- **T4.3 Students Visits to EU Partners**

To promote international exchange and enhance the capacities of future educational staff, the ICT4EDU project will facilitate student visits to European partner higher education institutions. The Consortium has started to work on the plan for these visits. Each of the nine partner institutions from MENA countries will select one or two students to participate in a 12-day training workshop at a selected EU partner university. These visits, starting in the first half of 2025, will focus on training directly related to assessed needs and will be organized by the European universities. The EU partners will prepare the workshops and materials, while the MENA partners will select students based on criteria such as study area, degree, academic background, English communication skills, motivation, prior participation in similar activities, and gender balance.

Conclusions and comments

The WP is positively in progress. The anticipation of its activities ensured a timely implementation and a more extensive discussion among the beneficiaries to develop shared templates, selection criteria and reporting procedures. All preliminary activities necessary to ensure the successful implementation of future capacity building courses have been effectively implemented.

The first milestone of the WP has been meet: the Capacity Building Plan Report Document has been prepared and approved by the Consortium, including the timetable for the mobilities and workshop workflow prepared and approved by the Consortium (MS12).

- **Quantitative KPIs**

- Number of trainers: Each trainer will instruct at least 10 teachers within their higher education institutions, with support from EU partners.
- Number of teaching staff trained: A total of 40 teaching staff will be trained over two TOT rounds in Europe (Bucharest and Portugal) by Months 18 and 22.
- Number of technicians trained: 20 technicians will receive training in Cyprus by Month 28.

- Number of students trained: 20 students will receive training in Bucharest by Month 30.
- Total participants in TOT sessions: 40 teaching staff, 20 technicians, and 20 students.
- Number of academic workshops for transferring know-how and skills in the MENA partners' institutions: 9 workshops, each including a seminar led by a EU partner.
- **Qualitative KPIs**
- Development and implementation of innovative and technology-enhanced ICT skills among teaching staff.
- Creation and adaptation of early childhood education curricula, including the design of learning and teaching materials.
- Successful organization and execution of in-house teacher training courses, customized to meet local needs following the TOT sessions.

3.4 WP5 Development of the ICT Lab to support the new curriculum

Work Package 5 is coordinated by (Frederick University – P10) with the support of Al-Azhar University (AZHU–P4) , Al-Istiqlal University (PASS- P9) and The University of Jordan (UJ – P1). It has started in December 2023 (M12) and will last up to December 2024 (M24)

WP5 focuses on the establishment of ICT laboratories to support the new curriculum and this involves finalizing the equipment list, managing procurement and installation, and ensuring the labs' operation. Emphasizing the synergy between pedagogical science and the practice of teaching, this initiative aims to anchor teachers in strong pedagogical principles while incorporating creativity and inspiration into the learning process to foster students' passion for learning.

Each partner university is going to set up ICT labs dedicated to implementing courses developed during the project. Equipment has been selected by analysing the best practices from partner EU universities and findings from a survey on available facilities and resources conducted in WP2 (D2.3). The procurement prioritizes essential equipment, ensuring cost-effectiveness and avoiding duplicated purchase, with a transparent tender process. The labs will be managed by internal staff from the universities' computer centers.

Objectives:
- Provide teacher training workshops that will contribute to teachers' professional development in the field of ICT4EDU.
- Promote intergenerational ICT4EDU learning through the organization of university-school-community partnerships.
- Use the equipment for developing new ICT-enabled teaching and learning methodologies, especially for the revised courses.
- Develop a suitable capacity-building web-based toolkit on how to integrate ICTs with Education for Sustainability.
- Develop suitable course/training materials and digital student-driven lesson plans in early childhood education.
- Develop a policy and strategy on how to sustain and use the ICT4EDU Labs after the

project funding period.

Tasks:
• T5.1 Final List of Equipment
• T5.2 Purchase, installation of equipment and Lab operation

Activities implemented and Results produced

WP5 is started since 6 months, the following paragraph reports the activities implemented up to now.

- **T5.1 Final List of Equipment:**

The MENA has developed and answered to a survey on available facilities and resources at EC departments on WP2. The answers have been reviewed to identify the best practices already conducted in partner EU universities of utilizing ICT in education.

The list of effective equipment (D5.1) has been elaborated by the Technical and Scientific Committee (TSC); for each item the partners have been required to provide the detailed technical information. ICT4EDU views the use of this equipment as a dynamic process extending beyond the project funding period. Furthermore, the equipment is intended for multipurpose use to enhance the quality and effectiveness of project activities. For this reason the list of equipment could be adaptable to the specific need of the beneficiaries. Examples of the purchased material:

- Personal computers
- Interactive smartboards
- Projectors
- Video Conferencing system
- Video editing and creation softwares

- **T5.2 Purchase, installation of equipment and Lab operation**

All the process of purchase and installation has been monitored through regular reports by the partner about the steps taken, the committee responsible for carrying out the purchase, the quotations received, the choice of the tender. The installation of the equipment has been as well monitored. A Biannual monitoring table for the use of the ICT Labs has been developed considering the different purposes of use, the activities, the number of persons involved, the results and the justification of the discrepancies.

All partner institutions (except PTC) have completed the procurement steps to purchase the specified equipment in accordance with the given specifications, amendments, and guidelines. Any changes from the initial declaration were sufficiently justified through needs analysis and received the necessary approvals from the relevant authorities.

The equipment acquired has been actively used for in-house teacher training, student use, and the development of teaching and training materials. Over 150 teachers have benefited from the equipment, enhancing their capabilities to meet project requirements and develop digital training resources. Additionally, more than 700 students have utilized the equipment.

Conclusions and comments

The Work Package is just started. The first milestone of Establishing the equipment list by M16 (MS15) has been achieved. The WP leader has given clear information to the partners and set up a proper monitoring system that regularly provides feedback to check the proper use of the equipment and the effective impact on the target groups. The participation to the training courses (850 persons) and the opportunity tho create digital resources that support the implementation of the project are one of the most remarkable results.

Significant challenges have arisen since October 2023 due to the ongoing conflict in the Gaza Strip and the West Bank, which has impacted both the procurement and utilization of the equipment. The situation in the Gaza Strip, in particular, remains uncontrollable, presenting substantial barriers to using the equipment as intended for the ICT Labs' objectives. Palestinian partners are in the process of purchasing but experiencing difficulties due to higher prices and electricity/network cut-off due to the circumstances in the region. PTC asked for delaying the purchase of equipment until the war is over.

- **Quantitative KPIs**

- Number of ICT labs established: One at each partner university.
- Number of pieces of equipment procured and installed.
- Cost containment according to budget.
- Number of teachers, researchers, students that have benefited from the equipment.

- **Qualitative KPIs**

- Successful implementation of courses developed during the project.
- Enhanced teaching and learning processes facilitated by the new ICT labs.

3.5 WP6 Quality Control and Monitoring

WP6 is led by University of Padova (UniPd – P13) responsible for the overall implementation and reporting, with the collaboration of The University of Jordan (UJ – P1), Heliopolis University (HU– P6) and Palestine Technical College -Deir Elbalah (PTC-P8). The WP action is spread throughout the project duration.

WP6 is dedicated to ensure that the project is executed within scope, on schedule, and meets the expected quality standards. Both internal and external quality mechanisms are employed to monitor and control the project's implementation. The project coordinator (UJ) conducts biannual monitoring of each WP's activities, tracking progress, milestones, and maintaining regular communication with WP lead partners. This monitoring includes reviewing progress, studying documents, and assessing interim outputs. The findings are used to produce reports outlining progress, accomplishments, and any issues, along with recommendations for improvement.

A Quality Evaluation Committee (QEC), composed of representatives from EU partners, conducts evaluations of completed WP deliverables through inspections, testing, peer reviews,

and audits. This evaluation covers the developed course materials, training sessions, workshops, ICT Lab, e-learning platforms, and more. Each WP Leader conducts self-evaluations, feeding into a broader analysis per WP. UniPd and UJ have prepared criteria for self-evaluation, and the results are compiled into quality reports, highlighting any shortcomings and suggesting remedies. These reports are disseminated among all partners and discussed in coordination meetings.

Objectives:
- Ensure the project adheres to scope, schedule, and quality standards.
- Implement both internal and external quality control mechanisms.
- Organize self-evaluations and external audits.
- Produce quality reports with recommendations.

Tasks
- T6.1 Quality Committee
- T6.2 Quality and Monitoring Plan
- T6.3 Quality and monitoring annual report
- T6.4 External Evaluation

Activities implemented and Results produced

WP6 is in progress, the following paragraphs report the activities implemented up to now.
- **T6.1 Quality Committee:**

During the Kick -off meeting of the project the Quality Committee (QC) has been established, including 9 members from the partners and the project coordinator. The QC is organizing the quality measures like peer reviews, external accreditation and evaluation surveys. The QC has met on November 2023 and will meet annually.

- **T6.2 Quality and Monitoring Plan**

The Quality Plan takes into account measures of the European Standards and Guidelines for Quality Assurance with measures implemented in the project's first year to evaluate all work packages. Special emphasis is placed on ensuring the quality of academic content in the developed modules. The plan is designed to be flexible and adaptable, undergoing regular reviews and updates to maintain high standards and effective progress tracking. In June 2023, the first draft was shared via email with all partners, whose feedback was collected to refine and finalize the document. D6.1 Quality and Monitoring Plan final document will be continually reviewed and modified as necessary throughout the project's duration.

- **T6.3 Quality and monitoring annual report**

UniPD has developed D6.2 First year Quality and Monitoring Reports with support from all project partners, this deliverable outlines the project's introduction, including its aims, target groups, planned Work Packages, tasks, and partners. The document details the results and outputs achieved during the first year for each WP. It includes a dedicated section on meeting

reports, summarizing participant feedback from quality evaluation questionnaires and categorizing meetings as either physical or virtual. The final section describes the main features of the quality plan developed in the first year, and the annexes contain the minutes of each meeting.
The deliverable has been reviewed, approved and published.

- **T6.4 External Evaluation**

A call for an external independent evaluator was planned, resulting in the selection and hiring of an expert to assess the project. This evaluator will produce an annual report based on project documents, analysis of outputs and achieved results, stakeholder interviews, and context analysis. The main activities undertaken included defining the call for the external evaluator position and selecting and hiring the expert to fulfill this role.

Conclusions and comments

The results achieved for the activities in WP6 are consistent and aligned with those outlined in the original project proposal. The WP is positively in progress and it has met all the foreseen milestones (at least in their initial step): The impact evaluation questionnaires (MS17) have been produced, applied, the results collected, properly analysed and reported. The Quality Committee board (MS18) has been formed with representatives of all the partners and the first meeting has been implemented. The initial version of the Quality and Monitoring Plan (MS19) have been approved and published. The WP appears to be well structured and the coordination among the 3 responsible partners is smooth.

Qualitative and quantitative KPIs could help the coordinator to assess the implementation and the efficiency of the WP's processes. **It is possible to extrapolate from the WP description quantitative and qualitative KPIs that can support the future assessment of the successful implementation of the activities.**

- **Quantitative KPIs**

- Number of monitoring activities conducted.
- Frequency of progress reviews and interim report studies.
- Number of post-event surveys/questionnaires conducted.

- **Qualitative KPIs**

- Effectiveness of training sessions, seminars, and workshops.
- Quality and functionality of developed course materials, ICT Labs, and e-learning platforms.
- Improvement in processes based on feedback from quality reports and audits.
- Engagement level of all partners in the quality improvement processes.

3.6 WP7 Dissemination and Exploitation

WP7 is lead by Al-Azhar University (AZHU – P4) supported by Palestine Technical University – Kadoorie (PTUK – P7), Irbid National University (INU -P2) and University of Bucharest (UB - P11)

The WP action is spread throughout the project duration.

Work Package 7 focuses on the dissemination and exploitation of the project's activities and results, this work package is responsible for coordinating, monitoring, and reporting dissemination efforts. All project partners participate in dissemination activities, targeting early education experts, policymakers, and other stakeholders. An interactive project website serves as the primary dissemination platform, providing comprehensive information and updates about the project. Additionally, an e-learning platform has to be developed to inform the academic community about the project's mission, services, and Open Educational Resources (OERs). This platform will feature advanced web technologies to ensure interactivity and support collaborative dialogue through social networking services.

The project's virtual presence will be supplemented by printed materials to facilitate targeted information dissemination. After the kick-off meeting, ICT4EDU leaflets have been distributed among the beneficiaries and key stakeholders. Biannual electronic newsletters are published on the project website, highlighting news, events, achievements, and success stories. Booklets on innovative, technology-enhanced teaching methods will be created and distributed to HEIs teachers and students. E-versions of these materials, along with developed training resources, will be translated into English and made available on all institutional websites for free download. Additionally, workshops, seminars, and conferences will be organized to transfer knowledge, share lessons, and engage stakeholders. Media coverage, including press releases, interviews, and articles, will further enhance public awareness of the project.

Objectives:
- Coordinate, monitor, and report on dissemination and exploitation activities.
- Utilize various dissemination methods to reach different target groups and stakeholders.
- Develop and maintain an interactive project website and an e-learning platform.
- Publish and distribute informational materials, including leaflets, newsletters, and booklets.
- Organize workshops, seminars, and conferences to facilitate knowledge transfer and stakeholder engagement.
- Enhance media coverage to raise public awareness of the project and its results.

Tasks
- T7.1 Dissemination Committee and Dissemination plan
- T7.2 Project Website
- T7.3 Promotional Materials and Dissemination days
- T7.4 E-Learning platform
- T7.5 Final conference

Activities implemented and Results produced

WP7 is in progress, the following paragraphs report the activities implemented up to now.

- **7.1 Dissemination Committee and Dissemination plan:**

For Task 7.1, a Dissemination Committee comprising 11 members, one from each partner institution, was established. The Dissemination Plan, developed by Al-Azhar University (AZHU) in the early stages of the ICT4EDU project, outlines the strategies for disseminating project information, ensuring sustainability, and addressing potential risks. The plan aims to introduce the project, disseminate information among partners, strengthen collaboration, and clarify the project's objectives and significance.

The target groups identified in the dissemination plan include universities, staff members, teachers, students, the community, and partners. Dissemination methods encompass PowerPoint presentations, seminars, online webinars, social media, newspapers, and magazines. Stakeholders' needs and potential contributions were mapped through surveys involving community members, students, and academic staff, providing a comprehensive understanding of their perspectives and priorities.

Throughout these initial project's phases, ICT4EDU has been widely disseminated through various actions. These include an introductory presentation on the project's website and associated social media, the distribution of promotional materials, dissemination days, and newsletters.

- **7.2 Project Website:**

The ICT4EDU project website, launched in March 2023 and managed by the University of Jordan, serves as a comprehensive platform to increase awareness of the project's progress accessible at https:// ICT4EDU.ju.edu.jo . The site provides detailed information about the project's objectives and various activities. The website has been designed to be accessible to the public, including individuals with disabilities, and aims to disseminate information about the project, its partners, and its activities.

An intranet area on the website allows project partners to upload didactic materials and share announcements about meetings, workshops, and activities. In addition to the website, the project's progress and methodology are regularly published and updated on the ICT4EDU Facebook page https://www.facebook.com/ICT4EDU.2023 . Social media traffic has increased, ensuring stakeholders have easy access to comprehensive details about the project's goals, activities, and outcomes. These platforms have been instrumental in disseminating information to teachers, students, the community, and partners, promoting meetings and programs effectively.

- **7.3 Promotional Materials and Dissemination days**

In Task 7.3, the Consortium developed and approved various digital promotional materials to aid in project dissemination. These materials include the ICT4EDU logo, posters, brochures, block notes, certificates, and roll-ups. These resources were created to enhance the visibility and awareness of the project among stakeholders

- ICT4EDU Logo
- Poster
- Brochure
- Block note
- Certificates

o   Rollup

Al-Azhar University designed and prepared two newsletters, which were subsequently published on the ICT4EDU website. These newsletters highlight the major activities and deliverables from the first year of the project, including news, events, and achievements. The newsletters were produced to provide updates and insights to a wider academic community, both within and outside the consortium. The first, second and third newsletters have been made available on the website to ensure broad accessibility and dissemination of project information.

Conclusions and comments

The implementation of WP7 appears to be positive and smooth even though in the provided report no specific information have been given about the organization or impact on the stakeholders of workshops, seminars, info days or events in presence or online. The initial communication and promotion activities seems to be sustained throughout this first half of the project. With the start of the second phase, further efforts will be required from all the beneficiaries for the effective exploitation of the project results.

According to the proposal T7.4 E-Learning moodle Platform have been correctly prepared and contain 60% of the material available: https://elearning-ict4edu.ju.edu.jo/login/index.php

In order to assess the impact of dissemination, it is essential that the consortium identifies clear objectives and targets in terms of numerical and quantitative impact on the different stakeholders. The WP description quantitative and qualitative KPIs, elaborated by the partners, support the future assessment of the successful implementation of the activities.

- **Quantitative KPIs**

- Number of participants in workshops and seminars: At least 2 workshops and 1 seminar for HEIs teachers and students.
- Number of conferences organized: Interim and final dissemination conferences with around 800 participants.
- Number of press releases and interviews: 6 press releases and 3 interviews in mass media.
- Frequency of newsletters: Biannual digital newsletters.
- Number of addressees reached with the newsletters.
- Number of publications: 2 publications per partner during and after the project.
- Number of online visitors of the project's website.
- Number of interactions in the social media.
- Number of online visitors to the pages /articles presenting the project in other websites.

- **Qualitative KPIs**

- Effectiveness of the interactive project website and e-learning platform in disseminating information.
- Quality and impact of printed and electronic materials on target audiences.
- Success in engaging stakeholders through workshops, seminars, and conferences.
- Media reach and public awareness generated through press releases, interviews, and social media presence.

4. Conclusions

4.1 Introduction to the conclusions

This External Quality Evaluation Report of the Erasmus+ Project "Enhancing ICT Competencies of Early Childhood Educators at HEIs in MENA Countries" (ICT4EDU- 101083078) has been produced taking into consideration the work of the Consortium in the first half of the project. Through the analysis of the results of the WPs (excluding WP3), it has been outlined how far the project objectives have been achieved (or how much has been done to ensure this by the end of the project) and which strengths and weaknesses are present in the implementation.

It is important to draw the conclusions of this report by emphasising two fundamental aspects:
1) the project is in its first phase, many of the expected results will be realised in the second half, so it has only been possible to assess the initial working approach and proceeding
2) the project involves countries located into an unstable geo-political context that has arose wide and complex challenges to the implementation of activities particularly in the territory of Palestine. Obviously, these causes of force majeure, which are absolutely beyond the Consortium's control or modification (particularly in the areas of infrastructure, material procurement and the actual implementation of certain activities) have been duly taken into consideration in this analysis. Indeed, it should be emphasised that the Consortium has endeavoured to limit the impact of any delays or to ensure that activities are carried out under the best possible conditions.

4.2 General analysis

In general, the project evaluated has achieved most of the objectives set for this first phase and is laying a solid foundation for future steps (see Table 3).

The coordinator keeps control of the project progress through regular online meetings which provide clear deadlines to the partners. The WPs are generally well organised with clear templates and monitoring measures implemented by all WP leaders. The change of partners between the University of Turku and Frederik University was handled positively, as demonstrated by the good work done by the new partner in the management and monitoring of WP5.

Almost all of the Milestones defined for this period were achieved and met (see Table 4). In terms of timing, there is a delay in the development of the E-learning platform (T7.4) and problems in the implementation of the ICT Labs (T.5.2) in the Palestinian territory related to the crisis situation in that area.

From the direct feedback of the partners directly interviewed for this report it has emerged how at the beginning of the project, cultural differences between European and MENA countries and occasional language barriers posed some challenges. However, these initial issues have provided valuable opportunities for mutual learning and understanding, which have ultimately strengthened the project's implementation. This element should be taken into account in the setting up of the future deadline in order to have all the Consortium properly aligned.

General area of impact	Specific objective	Expected results	Related WPs or specific Tasks	Achievement of the objective
Identify and develop **tools and materials** that support target groups' **competenteces in ICT in ECE**	1. To identify the student teachers' levels of digital competence when entering teacher education and compare across institutions.		WP2 – Preparation In particular: - Task 2.1: In-depth Survey on State of art of ICT in ECE - Task 2.2: In-depth Survey on Teachers and Students Digital Competences.	Yes, fully
	2. To develop of new teaching and learning methodologies and ICT support tools in classrooms, including e-learning Educational Resources	R2 Teachers and students will have increased their knowledge, understanding and skills in using ICT including multimedia applications, the use of video, virtual learning environments	WP3 – Curricula development	NA
			Task 7.4 E-learning platform - to offer open educational resources for staff and students	In progress,
Development and implementation of **course or curriculum innovation in ECE** using new technologies.	3. To identify, test and mainstream best practices and innovative methods of participation particularly in context of Early Childhood Education (ECE) digital competences.	R1 - Teachers and students will be better equipped and more confident to use innovative ICT methods in their everyday teaching context.	WP2 – Preparation [in particular: Task 2.2: In-depth Survey on Teachers and Students Digital Competences.]	Yes, fully
			WP5: Development of the ICT Lab to Support the New Curriculum.	In progress, on time

		R7 Design of a mutual obligatory course deals with ICT for, children with learning difficulties and disabilities. This course will be accredited within the core courses at the faculty of education.	WP3: Curricula Development	NA
			WP4: Capacity Building and Training Workshops	NA
Improve the capacities, knowledge and skills through exchanges, training and co-development work	4. To enhance professional competences and skills of teaching staff through train of **trainers workshop**s in contemporary pedagogical approaches, methodologies and educational technologies; learn from the experiences of colleagues from other countries in Europe.	R3 - About 36 Teaching staff, 18 technicians and 18-36 students of ICT4EDU will be trained on innovative digital methods and ICT based interactive and e-learning technologies in program countries to have increased understanding of digital teaching methodologies R4- 9 technology-enhanced (In house) teacher training (TOT)/institution, will be conducted at each partner institution, in total about 720 staff will be trained.	WP4: Capacity Building and Training Workshops	In progress, on time
	5. To improve the integration and interaction of the different components of the system (children, practitioners, researchers, families, community).			NA
Improve **ICT-based**	6. To deliver new/updated **ICT-**	R5 - 4-5 ICT-based courses at	WP3: Curricula	NA

training proposals for HEI	based courses in psychology, pedagogy, methodology of teaching, and technology enhanced learning at the PC HEIs in line with the modern European strategies; as well as implementing the curricula through accreditation and enrolment of students.	each partner institution will be updated and restructured. (40 in total) according to Bologna process (in total 40 courses for undergraduate level will be updated, accredited and adapted into the study plan, which equals to 200 ECTS).	Development.	
		R6 - Design 3 ICT competences courses on the free e-learning platform. 1) ICT and the 21st Century Pre- School Education 2) ICT Skills in Practical (Project-based learning) 3) Design and Develop web-based teaching materials	Task 7.4 E-learning platform - to offer open educational resources for staff and students	In progress,
	7. To ensure access to the latest developments in ICT to provide physical infrastructure and technical support that will make ICT accessible and useful to students, teachers, administrators and support staff		WP5	In progress, on time
Wide **dissemination, networking and sustainability**	8. Dissemination of the results obtained among Jordanian, Palestinian and Egyptian HEIs and stakeholders (connected to Deliverable: Dissemination report and exchange of good practices).	R9 Website, The website aims to disseminate information on the project; its partners and activities will be designed and operated to be made accessible by the public	WP7	In progress, on time

		including disabled persons		
	9. Share materials and teaching activities for teachers through online toolkit, workshops, seminars and conferences.	R8 - As a result of the Project implementation, e-learning platform will be elaborated, with new digital resources supporting courses development.	Task 7.4 E-learning platform - to offer open educational resources for staff and students	In progress

Table 3 – Achievement of the Specific Objectives

Milestone	Description	WP	Due at	Achieved
MS1	The kick-off meeting	WP1	M1	Yes
MS2	Development of Project management and communication plan	WP1	M2	Yes
MS4	Preparation of annual progress reports	WP1	M7, M12, M18, M24, M30, M36	In progress
MS7	Design questionnaire and Collection responses	WP2	M5	Yes
MS12	Capacity Building plan prepared	WP4	M16	Yes
MS15	Establish Equipment list	WP5	M16	Yes
MS16	Announce a tender	WP5	M18	Yes
MS17	Impact evaluation questionnaires	WP6	M1-36	Yes
MS18	Quality Committee formation board	WP6	M2, M12, M24, M32	In progress
MS19	Quality and Monitoring Plan	WP6	M6	Yes
MS20	External Evaluation	WP6	M12, M24, M36	In progress
MS21	ICT4EDU Website	WP7	M1-M3	Yes
MS22	Dissemination materials	WP7	M6-M36	In progress
MS23	Organizing info days and workshops at all PC universities	WP7	M1-M36	In progress
MS24	Production of Newsletters	WP7	M7, M12, M18, M24, M30, M36	In progress
MS25	Dissemination Committee and Dissemination plan	WP7	M6	Yes
MS27	E-Learning platform	WP7	M12	In progress

Table 4 – Achievement of the Milestones set for the analysed period of time