



#4 Policy Paper on Teacher Professional Learning (TPL)

The Palestinian Authority with support from the Belgian Development Cooperation implemented from 2011 till 2015 the project "E-learning Curriculum in Primary and Secondary Education" in several hundred Palestinian schools. The aim of the project was to utilize ICTs in school education in order to enhance student-centred learning and stimulate 21st Century Skills in Palestine.

An Intervention Action Research was conducted in 2014-15 with the main aim to provide upstream policy advice to the Ministry of Education and Higher Education towards improving and advancing E-learning resources and practices for teachers, students and families. The Action Research was assigned to a consortium of the Open University of Cyprus and the Al-Quds Open University which produced the following Policy Papers:

0. Policy Paper on Information and Communication Technology in Education (ICTE)
1. Policy Paper on School-led Initiatives (SLI)
2. Policy Paper on Digital Educational Resources (DER)
3. Policy Paper on mobile Learning (m-L)
4. **Policy Paper on Teacher Professional Learning (TPL)**
5. Policy Paper on 21st Century Skills (21CS)

The policy papers are based on a "Most Significant Change" study from over a hundred school communities (teachers, students, headmasters, parents, administrators) that participated in the e-Learning project, on two 4-month long Action Research projects in two sets of ten schools, on extensive discussions and feedback from supervisors and MoEHE staff, and detailed review by the staff from the Belgian Development Agency. A two-day seminar was held by MoEHE in April 2015 in Jericho in which initial versions of the papers were presented and reviewed by policy makers and practitioners. Thus, although the authors of the papers have full responsibility, they cannot take full credit. In December 2015 the results were presented and discussed publicly in Ramallah.

Each policy paper includes a subject definition, followed by objectives of the policy under discussion, continuing with policy issues, questions and decisions to be made; related challenges, risks and opportunities are outlined and the relation to the curriculum is highlighted, concluding with Policy Recommendations. The main detailed part is prefaced by a single-page outline.

The purpose of the six policy papers, to be used in combination, is to provide policy advice to the Palestinian Ministry of Education and Higher Education given its strategy, as specifically expressed:

- "the shift from teacher to student-centred learning, considering that frontal teaching, lecturing and rote learning are still the predominant methods of teaching in Palestine" (cf. MoEHE, 2008a, 34; MoEHE, 2008b, 8; PEI, 2009, 14)
- "... that ICT in education plays an important role as an enabler for promoting pedagogical innovation and developing the quality of teaching and learning. ... ICT may be an effective tool for learning or part of a learning environment designed to achieve specific learning objectives, often not related to ICT content" (Strategic framework of the Palestinian Education Initiative)
- "... special focus on quality improvement in learning environments and students acquiring the so called 21th Century skills" (ToR of the Action Research)

This series of Policy Papers was produced in 2015 by a team of educators from the Open University of Cyprus, Al-Quds Open University, the Belgian Development Agency (BTC) and the Ministry of Education and Higher Education of Palestine coordinated by Thanasis Hadzilacos, Professor of Educational Technology at the Open University of Cyprus.

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“Technology can amplify great teaching but cannot replace poor teaching.

Not a magic bullet to improve learning, it can play a role if applied better in the classroom;

of little help in bridging the skills divide between advantaged and disadvantaged.”

(From the OECD study, 2015)

The opinions expressed in this document represent the authors' points of view which are not necessarily shared by the Belgian Development Agency (BTC) or by the authorities of the countries concerned.

They include comments by the Palestinian colleagues from MoEHE and QOU after the Jericho meeting, April 2015. At all our visits we experienced a warm welcome from the people involved in supporting the educational process at primary and secondary schools in Palestine.

Teacher Professional Learning (TPL) for ICT in Education

This page outlines the main recommendations for the education needed by teachers in order to be able to utilize ICT in their classes, including objectives, related policy issues, challenges and opportunities.

If ICT@E were Health, TPL would be Doctors

Objectives

1. Teachers acquire operational ICT skills and computational thinking
2. Teachers acquire 21st Century Skills (21CS)
3. Teachers are able to teach in a student-centric way
4. Teachers facilitate students' ICT utilization for active learning and 21CS

Policy Issues/Questions that must be decided upon

- PR 1. Provision of suitable learning opportunities for teachers
- PR 2. Teacher motivation, guidance and support
- PR 3. Organizational issues

Challenges, Risks and Opportunities related to TPL for ICT

- C1. Scarcity of suitable learning opportunities for teachers
- C2. Insufficient in-School Motivation, Guidance and Support
- C3. Inadequate opportunity to apply in schools

Policy recommendations

- PR 1. A new strategic role for MoEHE in TPL: from provider to controller
- PR 2. MoEHE teacher policy: "Recognize, Reward and Request"
- PR 3. Coordination with the Curriculum and the Digital Educational Resources
- PR 4. Staged Application and Roles
- PR 5. Organizational Issues

Teacher Professional Learning (TPL) for ICT in Education

This paper recommends policies for TPL which will enable teachers to utilize ICT in student-centred teaching for 21st Century Skills (21CS) learning. TPL here refers to teacher training, education and preparation for ICT@E; pre-service and in-service; in-school, in Universities or training centres. It includes in-school support and seminars. Training material and methodologies such as on-line, distance, face to face, blended and MOOCs, action research and any other method appropriate to teachers' abilities and learning styles is part of Teacher Professional Learning. The term "professional learning" (TPL) stresses the life-long learning aspect for the teachers and was chosen for this reason instead of the usual "teacher professional development" or "teacher training".

If ICT@E were Health, TPL would be Doctors

Objectives regarding teacher education in ICT

1. Teachers acquire operational ICT skills and computational thinking

The first objective (first in chronological sequence but not in importance or difficulty) is that teachers are able to use ICT technology effortlessly. A specific curriculum must be developed for this. The general idea is that teachers should receive the same ICT education that their students are receiving today, including simple programming skills. In other areas, present-day teachers have generally received the education which their students are receiving today. This is not the case, however, for ICT or for 21CS; we need to compensate for that through special educational activities.

2. Teachers acquire 21st Century Skills (21CS)

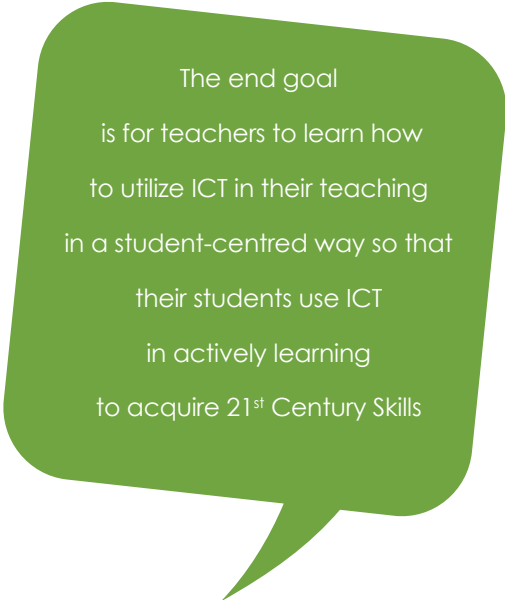
There are some 21CS that are tied to ICT, such as tools for working and digital literacy. (See Policy Paper #5 on 21CS.) Others, such as critical thinking and global citizenship do not require ICT, but are assisted by its use. For teachers to cultivate 21CS during their ICT education, we must ensure that ICT is utilised in a student-centric way in all teacher training, in general and not just for ICT training. Teacher Professional Learning should in practice provide learning models that can be used and further developed by teachers themselves.

3. Teachers are able to teach in a student-centric way

Again, student-centred teaching does not have ICT as a prerequisite, but is facilitated by ICT. A major objective of teacher education for ICT is that teachers will be able to use ICT tools and environments to teach in a student-centric way. This requires that teacher education for ICT is not pulled by technology but by pedagogy. (See Policy Paper #5 on 21CS.)

4. Teachers facilitate students' ICT utilization for active learning and 21CS

Finally it is the students who should utilize ICT (active learning) in their education in order to acquire 21CS; teachers will facilitate this utilization. Therefore we need teacher education that will show teachers how to guide their students into active 21CS learning.



The end goal is for teachers to learn how to utilize ICT in their teaching in a student-centred way so that their students use ICT in actively learning to acquire 21st Century Skills

The purpose of TPL in ICT@E is thus threefold, namely to help teachers utilize ICT in order to:

- acquire 21st Century Skills (21CS) themselves
- teach in a student-centric way that develops students' 21CS
- facilitate students' ICT utilization to promote active learning and 21CS

Policy Issues

PR 1. Provision of suitable learning opportunities for teachers

The main policy issue regarding Teacher Professional Learning for ICT is the role of MoEHE.

Who should provide the TPL opportunities? How will we ensure that sufficient suitable learning opportunities are provided to Palestinian educators (and educators-to-be)? Who will the trainers and mentors be? How can teachers remain motivated to take up the opportunities and utilize ICT in class appropriately?

In the current system almost all learning opportunities for teachers-to-be are provided by Universities and Teacher Colleges; almost all learning opportunities for active teachers are provided by MoEHE. A much closer cooperation between the Ministry and the Universities and other Centres can result in a new scheme in which the Ministry will set the goals and requirements, will accredit and evaluate, while most of the opportunities will be offered by other organizations.

PR 2. Teacher motivation, guidance and support

The reason why we need motivation (incentives) for teacher innovation is not that teachers are lazy or greedy. Innovative teaching is not just more work for teachers, although it does involve extra work and this should be acknowledged, for example where possible by shortening the teaching hours of those who produce good ICT learning activities. Innovative teaching cannot be paid like an extra working hour. Innovative utilization of ICT in education for 21st C Skills, like any innovation, is risky, not least because it often runs against school principals and supervisors and because it does not produce better Tawiji results. So MoEHE teacher incentive policy should aim at two goals: internal, or intrinsic, motivation (stimulation) and satisfying external 'requirements'.

PR 3. Organizational issues

Policy is needed on a host of organizational issues for TPL on ICT:

1. Time and place: On whose time and in what centres will training take place?
2. Centralized vs. Decentralized organization of TPL. Roles of MoEHE departments must be clarified. What will be the role of the new Institute for Instructional Technology? What will be the role of the existing National Institute for Educational Training (NIET)?
3. Moving teachers from school to school can be counterproductive especially when there is no sufficient infrastructure in the new school, or when long-term activities, such as Action Research, are interrupted.
4. Cooperation and coordination is needed among the potential providers of TPL, i.e. the MoEHE departments, Palestinian (and International) Universities and other institutions involved in ICT@E. This must be centrally coordinated but not centrally controlled by MoEHE.
5. How will we coordinate teacher training with school infrastructure to ensure a minimum enabling ICT school environment for trained teachers and trained teachers for optimal usage of existing ICT equipment in schools?

Challenges, Risks, and Opportunities

Obstacles exist related to three issues: availability of learning opportunities, teacher incentives and motivation, and difficulties in school application.

C1. Scarcity of suitable learning opportunities for teachers

It will be difficult to provide sufficient suitable **Learning Opportunities** in ICT@E without sufficient suitable ICT@E trainers and mentors, and good training material. The resources of MoEHE alone are not enough. As a first step MoEHE can arrange with Universities to prepare some teachers, supervisors, principals and other educational cadres to become ICT trainers. Furthermore, all teacher trainers, not just ICT trainers, should be able to utilize ICT as a tool, irrespective of their own training specialty; a change of attitude ('culture') in teacher education is needed for this and should be discussed with NIET.

C2. Insufficient Motivation, in-School Guidance and Support

As long as ICT@E is an innovation (at some point, hopefully, it will cease being innovative and will become standard) MoEHE should have policies that actively encourage teachers to utilize ICT@E for active student learning and 21CS.

Feedback from the April 2015 Jericho meeting of MoEHE cadres suggests that currently teachers feel insufficiently motivated. Appropriate **incentives** should be established for teachers to learn and apply ICT@E. The problems they reported concern:

(a) Their training

1. There are not enough ICT@E developmental programs.
2. Training is offered without sufficient teachers' need-analysis.
3. Trainers themselves are not always adequate in ICT@E.

C3. Inadequate opportunity to apply in schools

(b) The closely coupled issue of the opportunity to apply in schools. Difficulties in application are related to Infrastructure, Curriculum, Follow-up and Resistance to change.

4. Lack of in-school follow-up of teacher training programs, including supervisor visits.
5. Sometimes the administrative and financial sides of the laws are not applied.
6. Schools are poorly equipped; infrastructure is not properly developed and renewed.
7. The curriculum does not encourage and often does not leave room for innovative teaching.

No incentives just to use ICT

Technology itself is pedagogically neutral
ICT can be used to promote active student learning or 21CS

but it can also be used in ways that are simply more efficient teacher-centric instruction
(just making nice computer presentations, for example, as is often the case)

We cannot prohibit such ICT use, but we should definitely not encourage it

Policy Recommendations

PR 1. A new strategic role for MoEHE in TPL: from provider to controller

The central policy recommendation of this paper is for MoEHE to shift its strategic role in TPL from provider of teacher education and implementer of teacher training, to enabler, certifier and quality controller.

MoEHE, through the proposed Palestinian Institute for Educational Technology (see Policy Paper #0 on ICT@E), will:

- Focus on teaching with technology, not teaching technology itself.
- Treat ICT@E training as an opportunity to promote student-centred active learning for 21CS.
- Supply teachers with the necessary infrastructure and provide them with technical and pedagogical assistance at school and at home.
- Implement the teacher strategy: "Recognize, Reward and Request" (see below).

MoEHE should ensure that sufficient suitable Professional Learning Opportunities for ICT@E are provided. In the current system most TPL opportunities are provided by and through the Ministry. This was necessary at the beginning, but in many countries this is not the case anymore.

MoEHE should have a new, strategic, role in TPL for ICT@E:

- Decentralize learning opportunities geographically and institutionally. Several organizations should be able to provide TPL; MoEHE will direct, evaluate, certify and control their quality.
- MoEHE will cooperate with Universities, Teacher Colleges and other centres, Palestinian and International, to design, accredit, provide and evaluate learning opportunities.
- MoEHE will also develop trainers and mentors through such collaborations; it will establish and support teacher online communities for TPL, but not control them; it will encourage in-school action research, guided by Universities and Research Centres, Palestinian (mainly) and international.

PR 2. **MoEHE teacher policy: “Recognize, Reward and Request”**

Motivate, encourage, and give incentives to teachers for their Professional Learning in ICT@E and its utilization in school through a **strategy “Recognize, Reward and Request”** that will coordinate MoEHE departments from teacher needs for professional learning to ICT application in school:

- Recognize, support, and acknowledge the work needed in ICT@E and often done by innovative teachers and schools.
- Reward through distinctions, promotions, scholarships, educational leaves, priority in school choice and other means.
- Request and Demand through a plan that will require each teacher to take up a certain amount of 'learning units' from among those offered by universities and other centres and accredited by the Ministry according to an approved personal plan for each teacher.

MoEHE will facilitate application of ICT in schools for active student-centred learning towards 21CS by providing resources and coordination:

- Minimum enabling Infrastructure: Hardware, Connectivity (networks) and Digital Educational Resources
- In-school technical and pedagogical support and learning opportunities
- Alignment with curriculum (see Policy Recommendation 3 below).

PR 3. **Coordination with the Curriculum and the Digital Educational Resources**

- Unless the school curriculum is aligned with the ICT@E 21CS education that the teachers will be getting, they will not be able to apply their new knowledge and skills in their classes. The reverse is also true: in order to align the curriculum with active student centred learning, we need suitably trained teachers.¹
- As supervisors and school principals have an important role in teacher guidance and evaluation, MoEHE should ensure that supervisors as well are trained in ICT and the student-centred approach.
- As teachers learn and utilize the new technologies for student-centred learning towards 21st century skills, they will need to find, adopt, adapt and create digital content; this should be actively encouraged through the Recognize, Reward and Request policy.
- Teachers should be encouraged to be actively involved in the production of Palestinian Digital Educational Resources (see Policy Paper on DER).

ICT permeate all activities in our societies; correspondingly ICT affects all MoEHE departments, directly and indirectly. In several countries ICT@E is coordinated by an independent National Center established but not directly run by the Ministry of Education.

MoEHE should establish a Center for educational technology and innovative learning for 21CS in Palestinian schools in the lines of the National Centre for Technology in Education in Ireland, the Norwegian Centre for ICT in Education, the Computer Technology Institute Diophantus in Greece, and many others. A proposal for funding such a centre will in all likelihood be well received by donors.

PR 4. **Staged Application and Roles**

This policy paper focuses in teacher professional learning for ICT@E; however several of the proposals are applicable to TPL in general. In the current system the Ministry plays a very large role in the provision of teacher training, mainly through the National Institute of Educational Training (NIET). In the proposed system, several venues for training will co-exist (and be allowed to compete); teachers will have the initiative, responsibility and choice; and MoEHE will focus on policy issues and quality.

MoEHE, including through NIET, will have the following priorities:

- Set the goals and standards for the professional learning of teachers.
- Establish the policies for accomplishing the goals and monitor their implementation.
- Accredite the courses offered by Universities and other institutions.
- Evaluate the results of the training, including e-portfolio assessment of the teachers and a portal for teacher professional learning opportunities.
- Supplement courses offered by others, when needed.
- Cooperate with Universities: benefit from the experience of distance learning; cooperate with academics with expertise in long-term programs for ICT in schools; benefit from practices and experiences of universities in teacher pre-service learning.

¹ This is an instance of the overall vicious circle problem in ICT@E which is dealt with in the overall ICT@E policy paper.

The teachers will

- Take the initiative for their own professional learning within the framework set by MoEHE.
- Draw up a 2-year (rolling) plan for their own professional learning; the plan will be reviewed by their school principal and agreed upon; it will include the equivalent of one university course per year, which has about 40 contact hours (or equivalent on-line) and 120 additional student hours of work.
- Have the personal responsibility for meeting the standards established by MoEHE.
- Make their own choices from among various courses offered.
- Evaluate their own training; this includes evaluating the result ("was I successful?") and evaluating the course ("was the program good?")
- Keep an electronic portfolio of their professional learning throughout the years.

Opportunities for teacher professional learning can be organized and offered by:

- Universities and Teacher Colleges
- International organizations in Palestine
- International organizations abroad
- The NIET
- Ad hoc

Principles, Ways and Means

- TPL opportunities should be student-centered, active learning, participatory, towards 21CS (i.e. use the same rules, principles and goals in training teachers as the teaching we want them to do).
- Action Research is an important means for TPL.
- TPL should focus on in school, long-term activities and downplay short seminars.
- TPL must be understood by the whole educational system in Palestine as a Life-long learning approach that is part of the professional life of a teacher for her whole career.
- e-Portfolios for teachers are a way to learn, to teach and to assess themselves.

PR 5. Organizational Issues

1. Time and place: On whose time and in what centres will training take place? We suggest that all teachers in addition to teaching should follow the equivalent of one-semester course (6 ECTS – European Credit Transfer Units) per year in TPL; for the next few years one third of those should be in ICT@E.
2. Minimum enabling environment²: Clearly, adequate ICT infrastructure and suitable ICT support at all training centres is needed. It is equally important for the schools where the trained teachers will go: if they do not have the opportunity to apply in practice they will soon forget and the training investment will be wasted.
3. Optimal usage of ICT equipment: The reciprocal coordination requirement is that not only we should send trained teachers in schools with infrastructure but also we should not leave school ICT infrastructure idle due to lack of teacher training³.
4. Inter-departmental coordination in MoEHE – Establish the Palestinian Institute for Educational Technology, Quality and Innovation for 21CS (see Policy Paper #0, on ICT@E).

² A separate policy paper would be needed to elaborate on "Minimum Enabling Environment". In short, a minimum enabling environment is one that allows each student to use ICT in school for 20% of her time. For example, in a school with 10 classes of 24 students we would need 2 labs, each with 12 computers, connected to the Internet. Other alternatives exist. Organisational and educational conditions apply.

³ Coordination is a major issue in ICT@E deployment nationally and is dealt with in the overall ICT@E policy paper.