

# **Improving the quality of education in Palestine through e-learning and ICT: the bottom-up approach for a sustainable pedagogy**

Author: Elena Pacetti

University of Bologna, Bologna, Italy

## **Abstract**

SPEP (Support to Palestinian Education Programme) is a project funded by the Italian Cooperation, managed by UNDP "United Nations Development Programme- and involving the Palestinian Ministry of Education and Higher Education (MoEHE), 24 public schools with different grades, 4 local Universities (3 in West Bank and 1 in Gaza Strip) and relative Districts and the University of Bologna. Its aim is to support the capacity of the school for self-improvement developing a process where the school becomes able to self-evaluate itself in terms of quality of education (learning and teaching), management and leadership, environment, networking, relation with parents and community, continuing professional development of teachers and principals. Each schools develops its improvement plan with specific action plans, target and tasks, each with clearly identified success criteria in order to evaluate results. Local Universities, coordinating with the MoEHE, work each with 6 schools visiting them regularly, helping in identifying standards and targets for the quality of education and in planning the improvement, training teachers in different areas, monitoring, advising and reviewing. The main concept for the SPEP intervention is that of a comprehensive developmental process focusing the school itself and leading to school growth and improvement. The University of Bologna, Department of Education, has a technical advisory role in the ICT component supporting and working together with Palestinian Universities and schools and coordinating with UNDP and MoEHE. The University of Bologna's role is to implement the ICT knowledge and a critical practice in the schools providing relevant pedagogical models of the use of ICT, tools (software, videogames, learning objects) and methodologies, orientation, material, best practices, and is monitoring the pedagogical experimentation of the use of ICT in the daily didactic (in classroom) with a bottom-up approach respecting schools, teachers and students within the Palestinian context, using technologies and pedagogical-didactical models sustainable: stressing therefore the use of technologies with a low economical impact and open to a variety of cultural interpretation. The bottom up approach aims to innovate the pedagogy in the classroom, via the integration of ICT in the teacher's practice using both our general pedagogical models and models locally experimented in a critical and original way (compared to the traditional know-how): in this approach it is important to help teachers to reflect and elaborate on their own performances and produce as a result learning material to be newly utilized in their contexts.

**Keywords:** ICT, bottom-up approach, improvement, Palestinian schools, sustainable education

## **1. Introduction**

The Support to the Palestinian Education Programme (SPEP) is an ongoing UNDP's activity (United Nations Development Programme) that has being funded by several donor countries<sup>1</sup>: it aims to increase the enrolment capacity of the Ministry of Education and Higher Education (MoEHE) through the construction of 4 new schools as well as the renovation and extension of 10 existing schools. The project furthermore provides educational materials and equipments to 190 existing schools all over the West Bank and Gaza Strip. It must be emphasized that there are a number of significant events involving the MOEHE, as the education sector review and the implementation of the five years plan 2005-2010 and a large number of educational projects in different subjects and areas.

The Italian Government is also funding this project since 2005 with the management of UNDP and involving MoEHE, 24 public schools with different grades (a total of nearly 14.000 students and 565 teachers), 4 local Universities (Bethlehem University, Birzeit

University and An Najah University in West Bank; Al Azhar University in Gaza Strip) each working with its 6 schools, 4 Districts Educational Offices and the University of Bologna. Each university has a 6 members team from the Faculty/Department of Education plus one ICT focal point; each school has a team of 3-4 teachers, the principal and 2 ICT focal points (generally the IT teacher and another teacher with some computer skills).

The project has effectively started in May 2006 and it was supposed to end in October 2008 but due to several reasons it has been postponed until May 2009.

## **2. The educational context in Palestine**

The state of Palestine, regardless of what its final borders are/will be, is small and limited in natural assets. Its people are its primary resource: population has increased in the past 10 years and due to high fertility rates and the continuing migration of young adults in search of employment the percentage of young people is very high. More than 30% of the Palestinian population are full-time students enrolled in school or university (more than one million students) so education in Palestine<sup>2</sup> has become a community investment in human resources whose benefits are not only economic, but also cultural and social.

Palestinian schools are categorized (according to the supervising body) as governmental (public), private, or UNRWA (United Nation Relief and Works Agency)<sup>3</sup>. There are boys' schools, girls' schools, and co-ed schools. SPEP works only with public boys or girls' schools.

The high demand of education has some negative effects: schools are overcrowded, some schools have a two-shift system and others are housed in unsuitable buildings. The ratio of students to teachers is most of the time very high especially in Gaza Strip (up to 40). The quality of education is low due to the absence of sufficiently qualified teachers (50% of them are undergraduate), the absence of modern schools facilities (space, library books, maps, models, reference materials, science tools, etc.) as well as of modern teaching and learning aids, an inadequate system to evaluate student achievement, the absence of extra curricular activities (especially in villages). Teachers' training activities are provided by the MoEHE but are very theoretical and focused on improving teaching with old methodologies. Teachers' motivation is very low due to low salary, the absence of incentives, the burden of administrative and bureaucratic work without adequate preparation.

Above all, the occupation and the unstable conditions are affecting the entire society.

### *2.1. ICT in Palestine*

Although ICT in Palestine is seen as an important key to combating unemployment, sharing knowledge, overcoming restrictions on movement, ICT diffusion in the Palestinian education system is still faraway from being realized. "According to the MOE reports, 40 percent of the schools (2109) house computers labs (13 computers in each lab), while a small percentage of these labs are connected to the Internet" (Wahbeh, 2006). Many computers are very old and labs are used only during the technology class (45 minutes/week); the MoEHE does not allow schools to use their budget to connect to Internet<sup>4</sup>; most of teachers do not use computers even when they had training courses in ICT because of lack of practice. Computers and Internet are more diffused at teachers and students' homes but it depends on how teachers and parents perceive ICT.

### 3. The SPEP Project

#### 3.1. Objectives

The main concept for the SPEP intervention is that of a comprehensive developmental process focusing the school itself and leading to school growth and improvement of the quality of education in the Palestinian Territories.

SPEP aims to strength the capacity of the school for self-improvement supporting, through a partnership between schools and universities, the develop of a process where the school becomes able to self-evaluate in the field of effectiveness of learning and teaching, students participation, management, ICT skills, teachers relationship and satisfaction, leadership, environment, networking, relation and involvement of parents and community, continuing professional development of teachers and principals. Collaboration between the schools involved in the SPEP should create a supportive environment that encourages the adoption of change and increases the sustainability sharing of good practices, expertise, resources. Each school develops its improvement plan with specific action plans, target and tasks, each with clearly identified success criteria in order to evaluate results: microgrants are available to develop specific project related to the school’s needs. Local Universities, coordinating with the MoEHE, work each with 6 schools visiting them regularly, helping in identifying standards and targets for the quality of education and in planning the improvement, training teachers in different areas, monitoring, advising and reviewing.

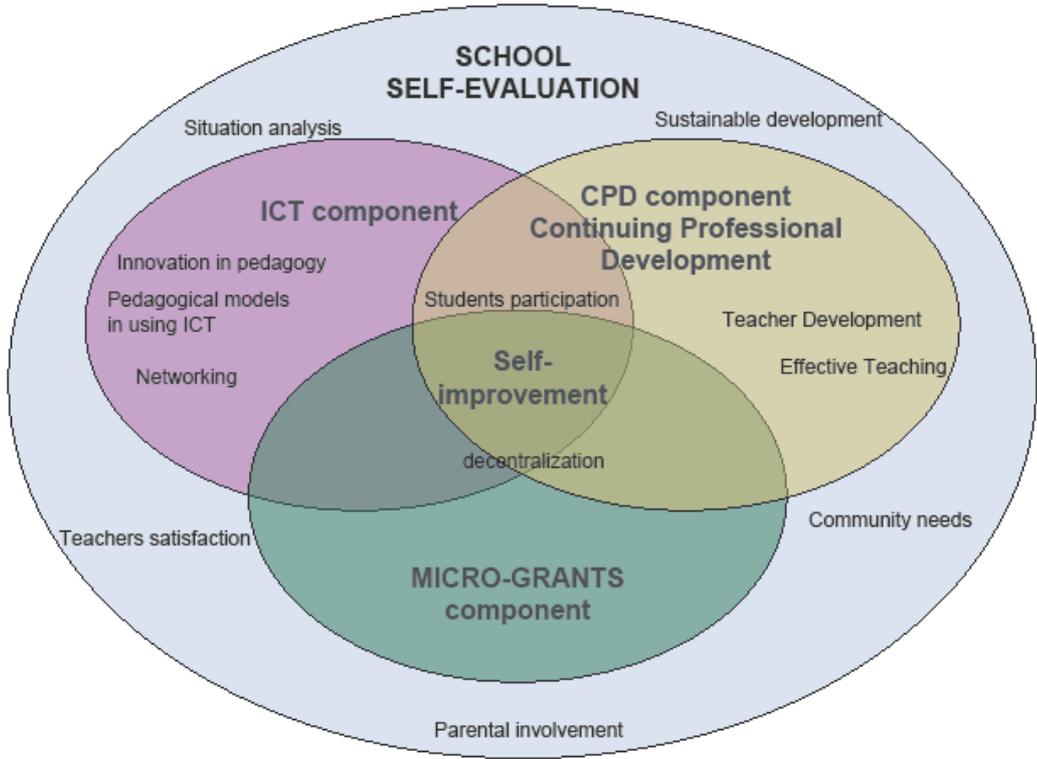


Figure 1: The comprehensive SPEP programme

### *3.2. Phases in the Project*

The project officially started at the end of 2005 but there were some delays in the different contracts that UNDP signed with Universities and MoEHE.

The following phases are identified in the project.

#### *3.2.1. Activation of the process (May 2006-August 2007)*

This phase aimed to collect data for the situation analysis of schools, to self-evaluate and to select targets for quality education, to develop the schools' improvement plans, to select project for microgrants.

But we have to underline that after Hamas victory in elections (January 2006), due to the economic blockade of the Quartet (UN, UE, USA, Russia), the public sector suffered a lack of funds which led to cut salaries. This situation brought to a proclamation of a general strike of public employees including teachers and administrative personnel of public schools from September till November 2006. As a result, it was impossible for a long time to make projects on activities with schools or proposals on action plans including school oriented activities and this phase was postponed for several months.

#### *3.2.2. Implementation of the intervention (September 2007-December 2008)*

This phase aims to start all activities for coaching, monitoring, developing courses and materials, tutoring, providing certified Continuing Professional Development to teachers and principals in schools according to school's needs, improvement plans and microgrants.

#### *3.2.3. Evaluation, dissemination and generalization (January-May 2009)*

This phase aims to evaluate schools' achievements, to adapt and finalize the different products and material resulting from the implementation phase in guidelines and prototypes that can be transferred in other learning context in Palestine, disseminating and involving up other 36 schools in the Project.

## **4. The ICT component and the role of University of Bologna**

The University of Bologna, Department of Education, has a technical advisory role consisting of supporting and working together with the Palestinian universities involved in the SPEP and with MoEHE in the ICT component of the project. This means working primarily with the ICT focal points of Universities, MoEHE, Districts, schools for the benefit of all actors involved. The project includes actions of training the teachers complemented by purposefully conceived action researches that while aiming to innovate the pedagogy in the classroom, via the integration of ICT, provides also, through the process itself, a context for the practical training and the elements for the finalization (either as integration or new development) of the theoretical component of training.

### *4.1. The bottom-up approach*

“ICT can empower the Palestinian education system if students' and teachers' roles are reconceptualised to make them active agents participating in meaningful learning. Literacy in this model includes more than just general and technical skills.” (Wahbeh, 2006, p.45-46).

Making ICT available in schools is not necessary to make teachers and students using it and producing new knowledge. The approach of University of Bologna aims to implement the ICT knowledge and a critical practice in the schools providing relevant pedagogical models of the use of ICT, of different tools (software, videogames, learning objects) and methodologies, giving orientation, material, best practices, monitoring the pedagogical experimentation of the use of ICT in the daily didactic (in classroom). This approach can only be bottom-up in order to respect schools, teachers and students within the Palestinian context: it is possible to innovate the pedagogy in the classroom integrating ICT in the teacher's practice not only using our general pedagogical models but also models locally experimented in a critical and original way (compared to the traditional know-how). It is important to help teachers to reflect and elaborate on their own performances and produce as a result learning material to be newly utilized in their contexts.

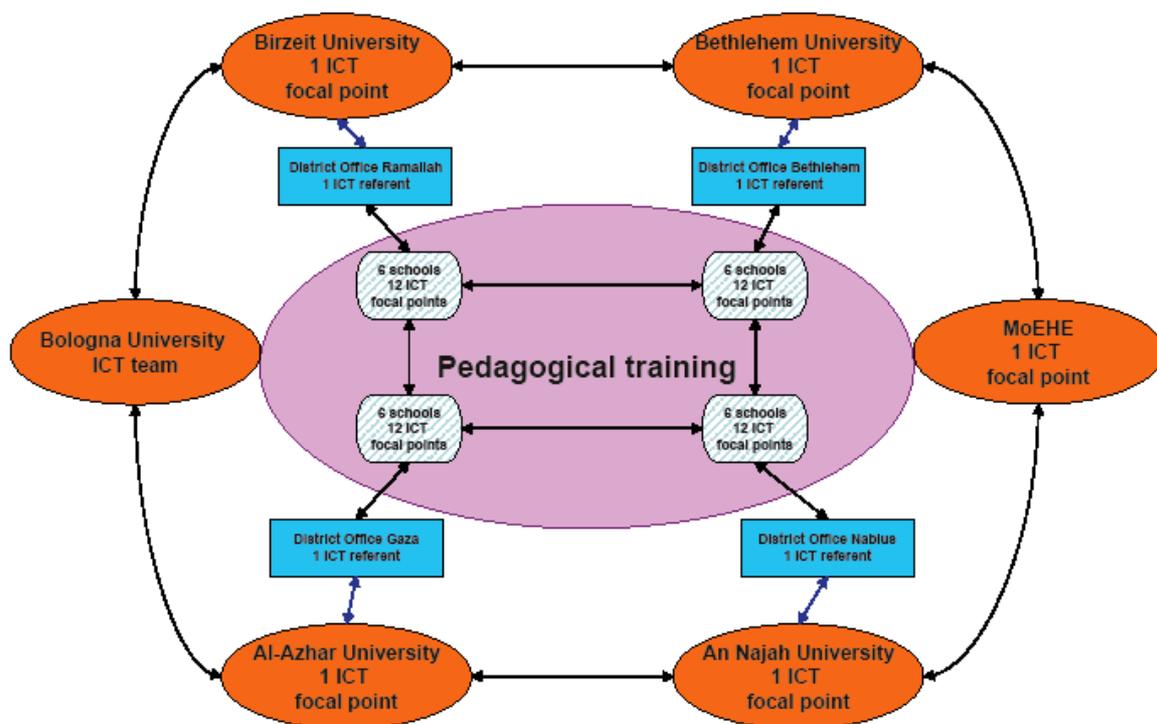


Figure 2: the ICT component

After the situation analysis, a first step was organizing a 2 weeks residential workshop in Italy in September 2007 where the ICT focal points from Universities and MoEHE could visit Italian schools and see different experiences in the use of ICT and meet experts. From this workshop, it was planned to train all teachers in the basic use of ICT and train the ICT focal points in the schools (they will then train their colleagues) with a pedagogical training on ICT where input of training are immediately followed by experimentation in schools. A website is also supporting activities with function of information, research, sharing material, presentation of best practices.

#### 4.2. For a sustainable pedagogy

The model of intervention is based on the idea to develop competences at the local level (Universities, MoEHE, schools) and to create stable links between Universities and teachers for a better sustainability. It is important therefore to stress an use of technologies with a low economical impact and open to a variety of cultural interpretations. In this way it is not important what kind of technology we will use or the market wants to impose to us but the way we use technologies.

### 5. The present situation

The ICT basic skills training was successfully done and teachers are now able to use computers and internet to prepare material, presentations, homework, etc. It is just the first level of use of ICT but as it is related to small projects monitored by universities it is giving good results in changing the attitude of teachers about ICT and they want to learn more.

Due to the particular political situation and to several problem between UNDP and MoEHE, unfortunately UNDP decided to suspend Gaza Strip for the ICT component, the pedagogical training has been postponed and it has just started at the end of August 2008, microgrants will be distributed in September 2008 to implement schools' projects. So the implementation phase has just started and we look forward to see the results.

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<sup>1</sup> Including the Government of Canada, Japan, Luxembourg, as well as the Islamic Development Fund and the Saudi Fund to Aid the Palestinian People.

<sup>2</sup> The Palestinian Ministry of Education was established in 1994, and the first ever Palestinian National curriculum was introduced in September 2000 to replace the Jordanian and Egyptian curricula in Palestinian schools for the previous 33 years of the Israeli occupation (Communications Office of the United Nations Development Programme /Programme of Assistance to the Palestinian People, 2005).

<sup>3</sup> The situation is different in Jerusalem, which has schools officially operated by the Islamic Waqf Directorate, although they are connected with the Palestinian Ministry of Education. Others are operated by the Jerusalem Municipality or the Israeli Education Department.

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<sup>4</sup> To connect computer labs to Internet, schools should seek donations from the local community or parents' associations and the connection should be registered under the funder's name. This has been a very big problem also for SPEP project and until now there are only few schools connected.