ICT In Multicultural Schools In The Inner City Of Oslo

Mirca Ognisanti

Abstract in English
This experience implies a great implementation of ICT (and a lot of money), in order to change the situation for schools in the inner city of Oslo. Three schools (one primary school, one comprehensive school and one high school) received 20 million NOK (2.422.920 Euro) to implement ICT in a great scale.
ICT in Multicultural Schools, Inner City Oslo East was a three-year plan at Vahl Primary School, Jordal Lower Secondary School and Elvebakken Upper Secondary School. The project was initiated by the Ministry of Education and Research in partnership with the Oslo Municipal Education Department, and ended in 2003.
The ITU (*Network for IT Research and Competente in Education of the University of Oslo*) has guided and advised the plan of implementation of ICT in the schools: it offered training and information to school administrators, project managers and the central project manager. In addition to ongoing guidance and advice, guidance measures have also been implemented aimed at teachers and pupils through ITU's team of developers and through a pedagogical newsletter. ITU also coordinates external researchers in connection with the evaluation of the project.

Abstract (in italiano)
Questa esperienza implica un grande coinvolgimento di ICT (soprattutto economico), nell'intento di cambiare la situazione nelle scuole nel centro urbano di Oslo. Tre scuole (una scuola elementare, una scuola media ed una High School) hanno ricevuto 20 milioni NOK (Euro 2.422.920) per un lavoro su grande scala.
ICT in Multicultural Schools, Inner City Oslo East è un piano triennale applicato nella scuola primaria di Vahl, nella scuola media di Jordal ed nella scuola superiore di Elvebakken. Il progetto è stato iniziato dal Ministero di formazione e di ricerca in collaborazione con con il reparto comunale di formazione di Oslo e si è concluso nel 2003.
L'ITU (*Network for IT Research and Competente in Education of the University of Oslo*) ha guidato e promosso un piano di allargamento di ICT nelle scuole: ha consentito la formazione e ha fornito le informazioni per istruire i coordinatori, i responsabili di progetto ed il responsabile di progetto centrale.
Oltre a offrire consulenza e consigli, sono stati messi a disposizione supporti didattiche rivolti agli insegnanti, attraverso la squadra di educatori dell'ITU e attraverso un bollettino pedagogico. ITU inoltre coordina i ricercatori esterni in relazione alla valutazione del progetto.

1. The practice
1.1 Description of the project
This plan has three main objectives:
- Meeting the challenges that differences in pupils' circumstances represent
- Exploring the opportunities that ICT provides in work in schools with large numbers of pupils with different cultural and linguistic backgrounds
- Testing how ICT can help to create flexible and novel learning arenas for pupils and
    teachers

These aims are pursued throughout the provision of computers for the 3 schools involved and the implementation of training courses for teachers that have to learn to use computers. The school received the computers, with keyboard in Arabic, urdu, and other among the main language used by students. Every students received its own computer and the teacher carried out his/her lesson by using the ICT. Thanks to the supervision and training of ITU, teachers have been trained to the use of ICT and they learnt to plan their lesson throughout informal methods, able to appeal and to get the interest of students.

ICT equipment in the multicultural school helped the school itself to improve its status; children changed their perception of the school, which was not considered just as a school for migrants; the setting up of ICT stations in the schools help to change the status of the school which can represent itself as a modern and well equipped school. The results of national reading test can be quoted to underline results of this ICT provision Programme: in 2002, 42% of the students in seventh grade scored below the critical limit for reading comprehension. In 2004 this number was reduced to 25%.

Common for all the four schools is a rise of interest and competence in questions related to cultural diversity, bilingualism and socialisation.

1.2 Time, structure and steps of the project
The Project started in 2000 after a research conducted by the University of Oslo, whose results demonstrated the importance of using ICT for pupils who do not have completed their language acquisition. There are lots of examples in the change of status and ethos at this school: Both on the individual level (the young students themselves), and at a more macro-level: Margareth Sandvik, Professor at Oslo University (Teacher Training Department), has wrote several articles and publications on the value of ICT as a method for second language learning. His counselling has allowed to the Public Administration to implement this plan, from the start up to the follow up observation.

1.3 Place and context:
The three schools are based in low income areas of Oslo, and the population can be characterised by a high percentage of multicultural inhabitants. From being school with a bad reputation, a negative image, low attendance and low scores on national tests, the four schools have all changed into the opposite: attractive and successful schools for children, parents and teachers. The family socio-economic conditions and its geographical address in the city decide which school the child has to attend. "White" families moved out from these areas circa ten years ago, and now they have been mostly populated by immigrants. However, there are changes in population: these areas are very popular for young people now, the immigrants sell their flats and move from the inner city. And new areas for immigrant families grow up a bit outside the centre.

In Norway today there is little acceptance for letting minority children learn to read and write in a language they don't understand. Therefore some schools have recruited minority teachers and developed learning material in different languages, among them Vahl primary school. To become literate in relation to computers implies some practical challenges: the keyboard, the fonts, the writing direction and the delete button have to correspond with the particular language.

Students have in several occasions expressed their positive attitudes and happiness for

the change of working conditions and learning climate. When computers and books are made available for the minority students, this will have a positive effect. Many minority children grow up in low income families, with parents are not educated, and books and computers are absent in their homes.

These resources have impact on students' possibilities and success in school.

Norway and in particular Oslo's experiences in ICT put into evidence the heritage on developing communication technology as a teaching tool and method.

www.hundespor.no is another project, but it witnesses Norway's will to develop learning resources at the Internet, and it also witnesses the status of minority languages.

1.4 Target
Students and school staff of three schools based in East Oslo.

1.5 Methodology:
The Programme is based on the assumption that a great implementation of ICT also implies a change in teaching style. The students work in pairs in front of computers, and this cooperation is very fruitful for language development. The primary school in the project (Vahl primary school) has got hold of keybords with Urdu, Arabic etc. So the children learn to read and write on computers – in their own alphabet.

Margareh Sandvik, the scientific advisor of this action plan, has completed a research at Vahl school on bilingual children's writing development: this investigation shows as ICT is no doubt a very influential factor in the development of students second language acquisition: they write extensively, they write multimodal texts, and they have a solid ICT competence.

The schools and their leadership were totally free to decide how the implementation should be carried out and on how to spend the money. An evaluation study was conducted to investigate the impact of ICT on learners with a multicultural and multilingual background. Secondly, the change is affected by a new learning regime: The three schools leaders have been aware of the importance of creating a new learning climate, with new learning styles at all levels. Every student has his own computer at an individual desk in an office landscape. The student work with one subject per day, and the "old-fashioned" is rejected. The "school class" is substituted by groups of students, and the each of them receives supervision from teachers who are organised in teams.

1.6 Authors, Funding and Networks
Authors: the municipality of Oslo ant the ITU *Network for IT Research and Competente in Education* of Oslo University have worked together for the implementation of this plan. They Municipality has directly intervened for the distribution of ICT instruments and ITU has done the scientific counselling, by advising schools, teachers, and administrators in order to gain the best results from this action.

Funding: Ministry of Education and the Oslo Municipality

2. HINTS FOR AN EVALUATION
2.1. Strengths
2.1.1 The organisation's perspective
The scientific advisor of this Plan states that the schools has obtained good results thanks to the use of ICT in the level of language acquisition for migrant students.

There are lots of examples in the change of status and ethos in the schools involved: the student who uses ICT felt a change in his/her status, because his/her own perception of the school bettered. At the same time, the school is considered in a different way also by the parents and by the whole community. The "Teacher training department" of Oslo University College send students in these schools to learn how to put into value ICT when teaching to non-national and non Norwegian speaking students. The experience of these schools receive many visits, from school researchers and politicians, inside and outside Norway.

The project run a parallel process, giving the teachers intensive training on how to use ICT with foreign students. Therefore, the schools receive a very good support, and they can advantage from the help of the ITU in case of problems.

2.1.2 Interculture map perspective

The first aspect to be stressed is the relevant level of funding. This is the essential condition to develop such a deeper ICT dissemination within multicultural schools in urban disadvantaged areas.

Another positive element of this experimentation is the high level of attention for ICT within Norwegian community and institutions, that consider ICT not just a tool but also a teaching method. This allow to let the schools free to decide how to use the funds for ICT: the Head-teachers implement also training course for teachers and allow the birth of a systemic programme which was not restricted to the distribution of technological equipment.

2.2.Critical points

2.2.1 The organisation's perspective

The researcher that has been interviewed stated that this plan was a real success. When asked if the status change of the school corresponded to an increase of the number of white students the answer was negative. This is due to a social and geographical reason of urban population settlement: in these areas white population moved away decades ago in order to reach middle class suburbs. The status and the perception of the school, therefore, change only form an inner point of view: presumably the status of the school, as a problematic school, remain unaltered in the perception of white population.

2.2.2 Interculture map perspective

What stated above is the main constraint of the Plan: the language acquisition is certainly a relevant factor for the school achievement of foreign students. At the same time, nevertheless, it is important to operate for a change of the perception of the school among the whole community: if Norwegian families will continue to enrol their children in *white schools*, the segregation will persist and no intercultural dialogue will start. Therefore it would be important to develop the communication to the community and the Norwegian families, which can understand and appreciate innovative methods, run by the school. The real success of this ICT methods will be accomplished totally, only if this second step will be walked: the new enrolment of (few) Norwegian students in these three multicultural schools will mean that a good result has been obtained also in an extra-school context.

2.3. Conclusion: what is "exportable" in the project

2.3.1 The organisation's perspective

ICT is no doubt a very influential factor in the development of school methods for the second language learning. Students can write extensively, they write multimodal texts, and they have a solid ICT competence that can affect positively their self-esteem, and, consequently, their school achievement. To do so, it is vital to start a parallel process of training, aimed at giving teachers the skills that are necessary to realize their course with ICT instruments.

2.3.2 Interculture map perspective

Themes: ICT in schools, teachers' training, development of teaching programme based on the use of personal computers.

Methodology: in order to obtain good result, this practice must envisage a twofold effort: from one side it is important to involve and train the teachers. I f they understand the value of this method, they will contribute to its success. On the other side it is important to understand how the school is perceived from the community. In case of a bad reputation, the ICT implementation will help the school to recover a better status, but, in order to obtain this result, it is essential to address efforts in the communication with families and communities.

3. LINKS

http://www.utdanningsetaten.oslo.kommune.no/getfile.php/Utdanningsetaten/Internett/Dokumenter/dokument/satsningsomrxder/artikkel%20jordal.pdf
Website of Jordal Skole with pictures
http://www.utdanningsetaten.oslo.kommune.no/getfile.php/Utdanningsetaten/Internett/Dokumenter/dokument/satsningsomrxder/artikkel%20vahl.pdf
Website of Vahl Primary School
http://www.hio.no/content/download/45735/344570/file/050629-sandvik_vaagan_vogt.pdf
Article related to the experience written by Margareth Sandvik (University of Oslo)
http://www.utdanningsetaten.oslo.kommune.no/satsingsomrader/ikt/ikt_i_flerkulturelle_skoler/
Software for the learning of Norwegian aimed at primary school students, in different languages, designed by Margareth Sandvik (University of Oslo)