

Computer Science In The Schools In Mali: The Experience Of The School "Les Petits Saints"

by: Moussa Bolly

National authorities and community leaders in Mali wish to turn computer science into an efficient educational tool. Even if at the national level, things have not been easy to implement so far, more and more private initiatives in this area are at present leading successful experiences here and there. This is the case of the basic school (kinder garden and primary school) "Les Petits Saints » in Bamako, one of the most promising experiences in this area. Unfortunately, the biggest hindrance this experience will have to deal with is the demand of the sources of financing for the evaluation of the real social and economical impact of the activities.



Located at Boukassoumbougou-Kouloublèni (first borough in the district of Bamako), the school «Les Petits Saints» is a very particular one. Even its name shows the aspiration of the school administration to transform its pupils into future decision-makers, to help them become skilled human resources for the nation. The real curiosity of this educational institute (from kinder garden to primary school- from CE1 to CP2) is a room arranged to work as a computers laboratory. There, you can see children filled with wonder in front of the computers. Under the supervision of a technician, they learn how to use the screen like a school blackboard where the 26 letters of the alphabet march past. This is an uncommon or even unique experience at this level in Mali. It ensues from the decision of a couple of Evangelists, willing to offer to all the children in their school a complete basic education in every field (classic studies, pottery, painting, English, observation sciences, computer studies...)

"The future society is the result of the education and training that children receive today. Thus, it is absolutely essential to make all the necessary efforts to grant the children a real education from the very beginning. This will facilitate a quick and healthy evolution", declares Reverend Mahamadou Traoré, promoter of the school, together with his wife Sarah. This former international football player, an Economy graduate, is today the Minister of the Evangelic Church in Béthel. Training begins during the last year of kinder garden when the pupils are 5 years old.

The broken myth

"For most children, computers are often a myth or a mystery. This is the idea we want to break by showing them what computers really are and how they can use them as a tool to assist their learning. Our goal is to make the children accept these tools as partners in their education", says the Minister. The introduction to Computer Science was a part of the school curriculum from the beginning of the school activities, in 2001.

"We had organized the children in working teams and we used to take them to an Internet café to initiate them with the computers. This turned out to be a problem as it was too expensive for us –we could not afford this any more as we had not included the Internet expenses in the school fees that ranged from 10 000 to 12 500 F CFA. Not to mention that the safety of our children during the travels was a big concern for us", adds Mrs. Sarah Traoré, a lawyer. But, "thanks to the SchoolNet project, we have now many computers. This project has given us twenty personal computers" points out the Minister.



SchoolNet Africa is a Pan African NGO. It has chosen this school to be a part of its program aiming to offer extension courses about the New Information and Communication Technologies in Primary and Secondary Schools in Mali. This initiative is supported by funding donors like the American Cooperation Service (USAID) that trained Mr. Traoré for the management of the project and provided a technician in charge of the pupils' training.

An adapted initiation

Mr. And Mrs. Traoré explained that all the provision have been taken in order to measure out the training according to the different capabilities of the children. They rely on the opinions of a Pedagogical Adviser and an Educational Psychologist that supervise the training. The impact of this vestibule training is already perceptible. In this way, according to the Education Supervisor of the Pedagogical Center (CAP), whom we had the chance to meet during this interview, "these children are more prepared than most of other students of their same age that did not have the privilege of receiving this kind of instruction. It is therefore desirable to extend this experience to other schools in the country".



This point of view is shared by many parents that are at present taking advantage of these tools to initiate themselves into computer science. "We will do all that is necessary to bring our children again with the Minister next year. We are aware of the fact that children must be initiated in the study of Computer Science from the very beginning of their education. We consider it a fundamental mainline for their education. The Ministry of Education should draw inspiration from this experience and try to spread it out all over the country", says one of the parents in the neighborhood. "Les Petits Saints is one of the schools in our program that has given us more satisfaction. We are very happy to see that all the computer supplies that we have offered to this school have contributed to awaken the gifts and the talents of these children, just as the promoters had dreamt", says Mr. Soungalo Dembélé, National Coordinator of SchoolNet Mali.

A very difficult evaluation of the impact

When the time comes to get funding for the projects, the major obstacle to overcome not only by this school in particular but also by every project involving the use of NTIC for education, is the impossibility to evaluate their real impact. «Except for the progress that can be noticed here and there in relation to other children who have not been initiated to computer science at the same age, it is very hard to assess the real pedagogical, socio-economical and cultural impact. And this is so because at the national level, there are no evaluation guidelines and standards available for these experiences », explains the Reverend.

This is a point of view shared by the coordinator of SchoolNet Mali. «Although in educational settings it is possible for us to measure the pedagogical advancements of the projects, in other backgrounds it is very difficult to make an evaluation of the real impact, as long as we do not have reliable tools to measure it at the national level. Nevertheless, the advantages for the process of teaching and learning are undeniable», adds Mr. Dembélé.



Anyway, the decision makers in charge of the extension of ICT courses in schools and universities are well aware of the existence of this obstacle. Indeed, stakeholders and decision makers have to deal with the fact that there is no official accreditation in the way up to ICTs professional training. And this is because there are no guidelines or standards for the training of trainers. Moreover, a reliable tool to evaluate the quality of the different training courses that are being offered in the area is still unavailable.

Find a way out from informality

For Mr. Fofana from the Agency for the Development of Information and Communication Technologies (AGETIC) «the characteristic of the different initiatives that are being implemented in this area is their informality. They are mainly isolated and incoherent actions. Thus, it is almost impossible to make an objective evaluation of their economical, social and academic impact». And he adds, «This is a handicap for the diffusion of ICTs in the schools because of the fact that donors and stakeholders only invest when they are sure that it is possible to have a proper follow up and evaluation of the project being financed».

This is the reason why the government has the intention to organize all these initiatives by means of an ICT Development Strategy in educational institutions all over the country. They also want to implement a reliable follow up and evaluation tool to measure its impact. This decision is clearly stated in the national paper

called "National Policies and Strategic Plan for ICTs" enforced in September 2004. In Education, this plan aims to introduce ICTs in the schools as a learning tool for students and for teacher training programs. The goal is to integrate ICTs in the curriculum of formal and informal education as well as in school administration and research. «Thus, we are asking our partners in the schools of Mali to help us define evaluation tools to measure the impact of the different initiatives that aim to popularize the use of ICTs in schools and universities. Without a reliable evaluation of the socio economic and academic impact we will not succeed in getting the results we expect», says Mr. Fofana.

In the meantime, it is thus desirable that not only SchoolNet, but also many other projects start working to accompany this experience. This will be determinant for the integration of ICTs in the educational system in Mali. In any case, Mahamadou and Sarah's efforts are commendable. For lack of "Little Saints", they are working hard to offer the country its first computer geniuses!

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www.iConnect-online.org is a knowledge sharing platform for Information and Communication Technologies (ICTs) in sustainable development. iConnect draws content from its partners, links resources and expertise and encourages collaboration. For the International Institute for Communication and Development (IICD), the host of iConnect, this is a way to share experiences, lessons learned and ideas, and interact with communities and people with an interest in development and the applications of ICTs. These experiences can lead to a better understanding of the actual benefits of ICTs for Development (ICT4D). The core of iConnect will be a series of locally written articles on the impact and the use of ICTs for development. The articles have a strong focus on fact finding; objective information on ICT4D practices from a southern perspective: Southern content written by Southern people. i4d is the iConnect partner for Asia, and ECA is the iConnect partner for Africa, disseminating the articles to their public.
