



Partners in Micro-Development Inc.

A step by step guide to
e-learning for remote
communities in developing
countries

Donna Vaughan



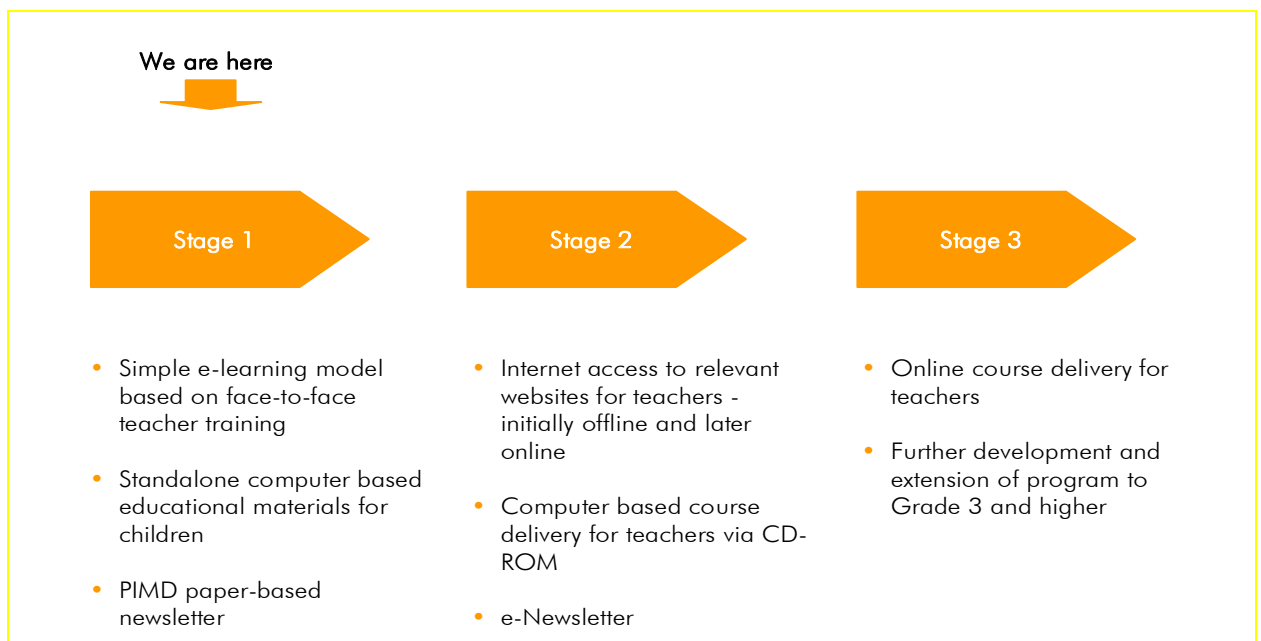


Introduction

For remote communities and schools in developing countries, e-learning is both an opportunity and a challenge. It provides the opportunity for teachers and students to overcome the constraints of inadequate physical teaching resources and in many cases not enough qualified teaching staff. However, it is also dependent on infrastructure which is unlikely to be accessible by these same schools.

PIMD has embarked on a journey with 40 village schools in Sri Lanka which we hope will eventually lead to delivery of e-learning content via the Internet for teachers and students. However our journey has a long way to run and we are just at the start. This article sets out our step-by-step plan and demonstrates what can be achieved with minimal resources and how such modest starts can be built on over time.

The following diagram shows our intended path. Each stage is then described in more detail.





Stage 1

The PIMD program currently uses e-learning to enhance the teaching and learning of English as a second language and at the same time develop basic computer skills in grades 1 and 2. Our primary objective is to educate teachers so that they can educate students by teaching the teachers as they would teach the children. For example, a lesson on how to use Microsoft Paint is used to teach the teachers this tool and how to use it with the children to assist in development of fine motor skills.

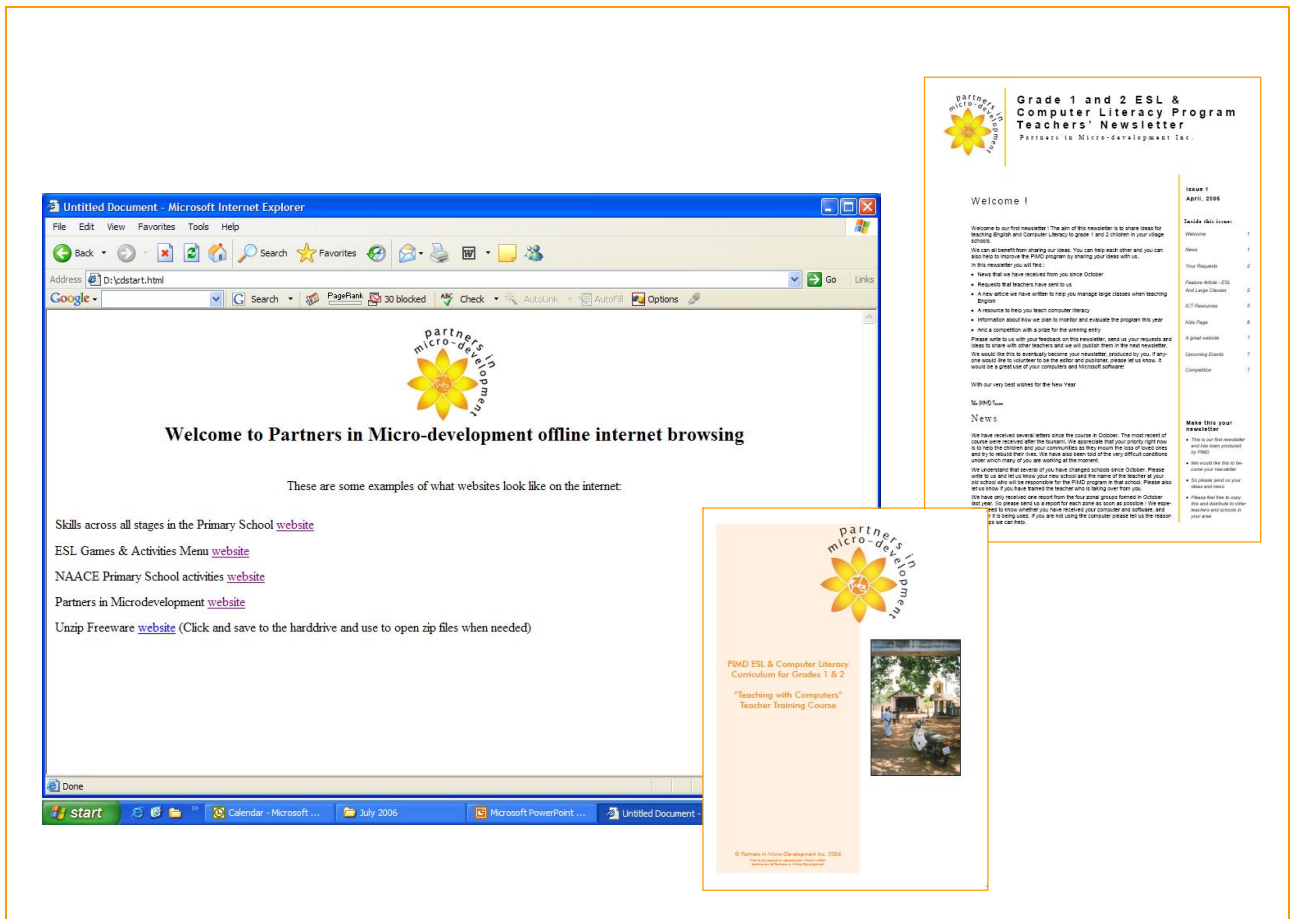


At the same time we educate the teachers in the appropriate teaching methods and use of computers with young children. We use standalone (no network connection) computers and educational software programs combined with face-to-face teaching methods and deliver a paper based newsletter to Teachers on a quarterly basis.



Stage 2

In Stage 2, we will use ICT to provide teachers with access to more resources by downloading useful education resource websites onto CD, including the PIMD website which contains curriculum resources and the Newsletter. We are also converting the face-to-face teacher training material into an e-learning format (still standalone) so that more teachers can access the training.



Stage 3

In Stage 3 we hope to be able to implement a full e-learning environment using the full virtual classroom capabilities of a learning management system (LMS) and the Internet to connect teachers with each other and with our trainers. Teachers will access this from the schools or from teacher resource centres at times that are convenient for them. In addition, we will continue to develop the curriculum so that it complements the Government curriculum for ESL from Grade 3 onwards. The Computer Literacy units will be added to so that the current Grade 1 and 2 students continue to develop their skills in Grade 3 and beyond. Guidelines will be developed for using the educational software to support the Government curriculum for ESL.

The teachers currently in the program will assist us with this work by writing curriculum units and contributing lesson ideas and by training Grade 3 teachers initially and later higher grades in the teaching methods they have learned through the Program.

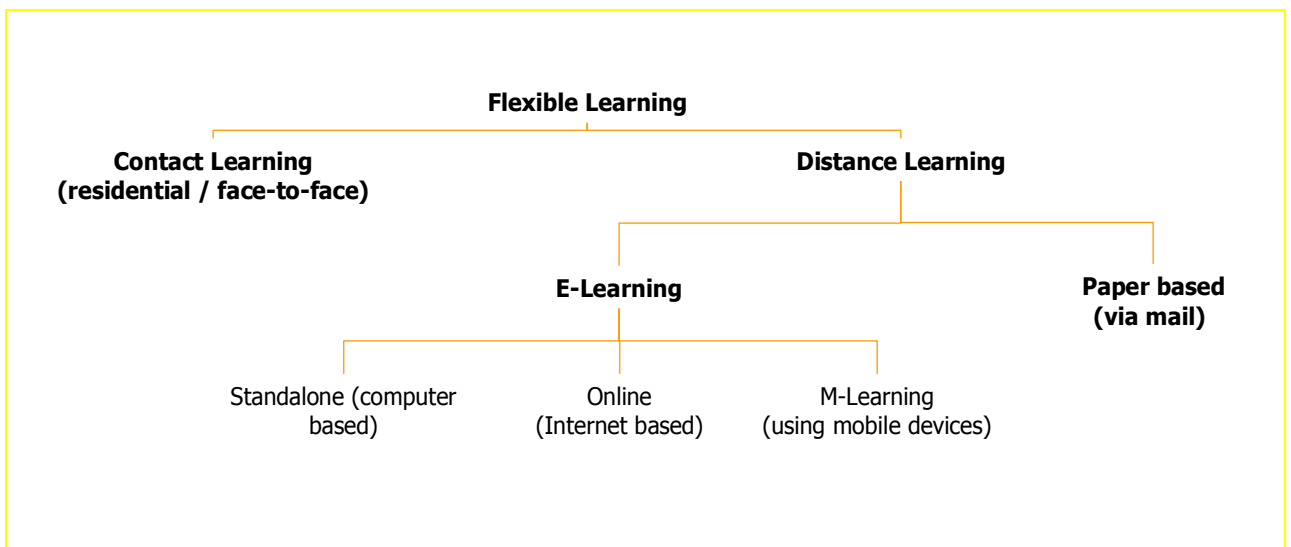


Critical success factors

However, for these steps to be successful, it is essential that the organisational infrastructure also develops to keep pace with the program.

- The sponsoring education authorities should begin from Stage 1 to integrate the program into all aspects of their business as usual processes from curriculum development through to monitoring and evaluation, teacher professional development, accreditation and remuneration, and student assessment. This should be reflected in the Department's organisation structure at all levels. The responsible staff then become the key contact point for PIMD, teachers, and school Principals.
- At a grass-roots level, teachers, schools, and parents can work together and build an extended community focused on learning. For example:
 - Parents can be encouraged to take an interest in the program e.g. by the school holding open days where the students demonstrate their skills to their parents
 - Teachers can establish a community within the school to develop ideas amongst themselves and to support each other's learning
 - Principals can establish a community within their district to discuss ways to access and share resources including funding
 - Parents, teachers and principals can work together to find ways for the whole community to benefit from the computers starting with offering basic skills courses by the school to parents

As the following diagram illustrates, the progressive approach to e-learning outlined above starts with the goal of flexible learning and progressively moves towards true e-learning and eventually m-learning. The important takeaway from this short article is that in many cases, given the lack of familiarity with the application and technology and lack of infrastructure, a basic model is a good starting point to build confidence, interest and enthusiasm which are as essential for success as any other ingredient.



Source: Adapted from Brown T. 2005, "Towards a Model for M-Learning in Africa", *International Journal on e-Learning*, 2005 Vol 4, Issue 3, pp. 299