

Workshop: Teacher Training workshop ICT's in Education conducted by Dr Nagarjuna (from the Homi Bhabha Centre for Science Education)

Dates: 29th and 30th March 2010

Venue: RV College of Engineering, Mysore Road, Bangalore

Course Content:

This workshop was aimed to broadly address three aspects of ICT's in education. One, the benefits and social value of using Free and Open Source Software (FOSS) in our public school systems. Dr Nagarjuna reiterated how FOSS would enable the teachers to imbibe values of collaboration, sharing and participation in children from a very young age and make computerization of schools much more affordable. He also highlighted how the softwares may be modified to suit very specific local needs, one such modification being the language of the operating system and also the education software, hence making it much more accessible to the non-English speaking communities.

Two, the *Studio* and *Constructivist* model on which the FOSS education software basis its pedagogical framework. The computer aided learning that can happen via the education software is based on the Studio model. Where each class is like an artist's studio, where the artist creates/produces something. Similarly a learner is learning by doing and in the process creating or producing something which keeps the child's motivation high. The constructive philosophy of knowledge seen as actively constructed by the learner, not passively received from the outside and also learning is something done by the learner, not something that is imposed on the learner are some principles that could be adopted easily with the education software.

And three, hands on experience using the Sugar Desktop and several of the educational packages that come with the Ubuntu operating system. The workshop included understanding the basic concepts of collaborative learning inbuilt in the sugar platform. Also a demonstration of the OLPC(One Laptop Per Child) and the benefits of using this in the Indian public schools. Finally, by working on the PCs the participants were introduced to the may educational software packages. The following packages were introduced.

Paint – Simple painting activity

Turtle Art - Pseudo-Logo graphical programming language

Etoys – Learning, programming and authoring environment

Freemind - Mindmap

Geo Gebra – Interactive Algebra Geometry

Stellarium - Astronomy

Chat – How to be connected and chat on the sugar platform

The workshop gave an excellent introduction to how teachers can effectively use several packages available on the Sugar desktop for both their own planning as well as enabling children to learn by doing, and fresh approaches to teaching abstract and often considered tough concepts to their students. Since the teachers had two days to try everything that was introduced hands-on it

generated a lot of enthusiasm and active participation amongst the participants.

Course Relevance for TCoLProgram:

Highlighted below are some aspects of the workshop that may be relevant to note for the TCoL participants.

- Introducing the Freemind software (Mind Map) and showing teachers a different approach to lesson planning and preparation besides the currently used Powerpoint presentations. Additionally introducing them to the Gnowledge website where they can look at maps that are already created and participate in the contribution of more. A good way to introduce them to sharing of knowledge on the Internet.
- Introducing some of the education packages used, especially the simpler ones like English , Art, Science and Mathematics and allowing the teachers to experience it hands-on.
- Many of the sugar communication features, especially of the OLPC may not be useful just as yet for the teachers as accessibility and usability in their classroom situations may be still a ways away.
- The CD that was given would be useful to install in the schools as they come with a complete set of education packages available. We could add on the Kannada language tool to this.
- Finally the teachers need to be somewhat familiar with the basics of computers for this type of workshop to be effective.
- I will install this CD on my laptop as well to be synchronized and have available all the software packages.