

**e-Discussion on UN Solution Exchange ICT for Development and Education
Communities**
Consolidated Reply of the 1st Query:
**Query: Framework for ICTs in School Education: Content and quality Issues –
Innovations and Research**
(16.4.08 – 25.4.08)

Moderators Note: The first topic of the e-discussion on the Framework for ICTs in School Education covered Investment issues, and drew insightful responses, read the summary at the following link http://www.solutionexchange-un.net.in/ictd/e-discuss/ediscuss02/summarytopic1_01040801.pdf (Size: 25.5 KB). We thank all ICT for Development and Education community members for your valuable comments and inputs.

This e-discussion has been grouped into three broad areas: The first discussion covered investment issues. The second discussion will cover content and quality issues. The third discussion will cover programme delivery issues, and address the topics of Public-Private Partnerships, and Monitoring and Evaluation.

We present you the next topic, **TOPIC 2: Content and Quality** and look forward to your active participation. We encourage you to broaden the discussion to your contacts in NGOs, schools, government, local authorities, private sector, and other non-members who you feel would have something to contribute.

We propose to run the second e-discussion to solicit suggestions and insights on content and quality issues addressing the subjects of **e-content, quality in school education, and innovation and research**. Once again members may please refer to <http://www.solutionexchange-un.net.in/ictd/cr/res28030801.doc> to understand the process of this series of consultations.

Issue	Question 1	Question 2
Innovations and Research	Suggestions on the role and types of research in understanding untapped user needs in schools?	Suggestions on how to seed, discover, incubate, and upscale innovation for enhanced effectiveness in the teaching-learning process.

Response List: 3 responses were received on the thematic area Research and Innovation from 16.4.08 to 25.4.08.

1. Anindya Kumar Banerjee, Panchayats and RD Department, Government of West Bengal, Kolkata
2. Anindya Kumar Banerjee, Panchayats and RD Department, Government of West Bengal, Kolkata
3. M V Ananthakrishnan, Developmental Infomatics Lab, KReSIT, IIT Bombay, Mumbai

Response 1

Anindya Kumar Banerjee, Panchayats and RD Department, Government of West Bengal, Kolkata

1. Suggestions on the role and types of research in understanding untapped user needs in schools?

VIEWS: In West Bengal I have seen that once the students are able to learn the basic concept they love experimenting and come out with great creative things and thus innovate things which matter to them the most "learn". I would ask all members to give one weekend to each student in a month to show his/her creativity in using ICT as a tool to churn out "INNOVATIVE THINGS". Yes, the student who delivers the best (let the teachers and senior students decide) gets additional 5 marks on the net marks in his home exams/final exams

2. Suggestions on how to seed, discover, incubate, and upscale innovation for enhanced effectiveness in the teaching-learning process.

VIEWS: It is already discussed for

[a]. Trainer/teachers to let the imagination go wild they need Vitamin "M" ie Money believe it or not we all work for it so be it.

[b]. For the student community we should give them free room to innovate and incubate ideas from their mind and the free flow of these as matter/content

[c]. Seek parents to send their innovative ideas in sealed envelopes to the Headmaster to read aloud a few of them each day in the assembly (so if there are 1000 students there will be 1000 ideas) VOILA!! We would get a lot to learn every day. Unless imaginations fly we will not be able to think great things for our own future our kids.

I am sure the above is seen by all as a reality check and accepted as well as it was written in a jiffy from my own experiences.

Response 2

Anindya Kumar Banerjee, Panchayats and Rural Development Department, Government of West Bengal, Kolkata

Innovation and Research - Innovation is an easy word for all but difficult to attain yet when you work with students who experiment with the great tool you will probably notice they are more innovative at times and with more and more unemployed youth some open competition on "Innovative Ideas" and lo you get a lot of ideas to work with. A

Research, well for this there are agencies and NGOs and government agencies or even retired employees from the education department who can be or may be used to do the research to bring in new avenues that will help generate revenues for the private partner and awareness on newer technologies for ICT@School.

Response 3

M V Ananthkrishnan, Developmental Infomatics Lab, KReSIT, IIT Bombay, Mumbai

1) Suggestions on the role and types of research in understanding untapped user needs in schools?

The research areas that need to be explored are:

- (a) An important factor to remember that the STUDENT IS THE CUSTOMER FOR EDUCATION.
- (b) A thorough understanding of the learning process of children in terms of approaches that are most effective
- (c) Development of prototype lessons and their field testing with children. A number of cycles with students from different scenarios would add value to the approach
- (d) Throw-away prototyping to be adopted as one goes on improving and adding value
- (e) School teachers should be involved in developing school curricula and instructional resources. School principals/headmasters should play a supporting role (and not a dictatorial one) to the teachers and students

- (f) The role of students in the selection of courseware (either in-house or vendor-supplied).
- (g) Thrust must be on adding value to concepts/principles through localisation of content
- (h) Researchers must go on to the field to get data and not work on data collected through questionnaires. They must interview all the stakeholders in education (students, parents, teachers, headmasters, trustees, administrators, end-users both from industry and academics)
- (i) Research projects should be such that their results are verifiable and sustainable. Teams should visit the end-users at regular intervals (for at least three years) even after the projects are completed.

(IT WAS RATHER DISTURBING TO HEAR FROM THE UNIDO INDIA REP DURING A RECENT CSR MEETING IN MUMBAI THAT THEY DO NOT INTERACT WITH THE END-USERS TO FIND OUT THE EFFECTIVENESS OF ANY CSR ACTIVITY OF A CORPORATE!)

IIT Bombay can provide examples of how the end-user (the student) was actively involved in the development of an ICT-based solution to educate the children of nomadic tribes. In fact this work has been awarded the FIRST PRIZE by UNESCO in the non-formal education category of 2007.

1) Suggestions on how to seed, discover, incubate, and upscale innovation for enhanced effectiveness in the teaching-learning process.

The sincerity in implementing and carrying out the steps detailed in (1) above should make all the steps (indicated in this question) successful.
