HIGHLIGHTS

ICT and pedagogy

Mirja Shahjamal, PMC Senior ICT in Education Specialist, SESIP

A key objective of SESIP is to introduce ICT in the pedagogical process and create an environment in which students and teachers have access to e-Learning resources and other facilities to enhance the quality of teaching and learning (which aligns with National Education Policy and ICT Master Plan 2012-2023), in particular:

♦ To establish ICT learning centres (ILCs), not computer laboratories, in schools to improve students' learning performance and ICT skills, and to improve teachers' ability and skills in adapting new technologies and methods in pedagogy

♦ To be student-centric with students able to use e-Learning modules to enhance their own learning with head teacher and teachers supported to enable this, inclusive to cover all secondary schools and madrashas, standardized with e-Learning modules for six subjects as supplementary materials to textbooks, and to support this by proper monitoring system, repository of e-Learning materials and ILCs owned by schools

♦ To focus on universal content with necessary contextualisation aligned with curriculum and subject topics, and not to focus on grade or class, but to be long-lived and not limited to every change in textbook / curriculum, with in-built learning progression e.g. levels 1, 2, 3 for each topic

Support for the Pedagogical Process: *"Good teaching is good teaching, no matter how it's done!"*

Improving the quality and equity of teaching and learning how can ICT contribute to this through?

Tom Power, International Teacher Development Programme Leader, The Open University

Research perspectives were shared from across the globe[1], Sub-Saharan Africa[2], Bangladesh[3] and lower middle income countries.[4, 5]

Four characteristics of effective education technology programmes, shown to have a positive impact on teaching and learning practices or learning outcomes, are:

♦ A clear and specific curriculum focus and pedagogic purpose, e.g. communicative language learning, early literacy or remedial mathematics

♦ Are teacher development programmes with focus on curriculum and pedagogy, not technology

♦ The use of relevant curriculum materials with students, e.g. classroom audio, video, eBooks, research resources, radio programmes

♦ Use of evaluation mechanisms that go beyond outputs to look at outcomes in terms of changes in teaching and learning practices, or learning outcomes

Support for the Pedagogical Process: *"It's about teaching and learning, not technology!"*

1 UNESCO 'Global Education Monitoring Report' 2016
2 COL 'Digital learning: reforming teacher education to promote access, equity and quality in SSA' 2016
3 BRAC 'An Evaluation of Computer Assisted Learning in Bangladesh Secondary Schools' 2016 (unpublished)
4 DFID 'Pedagogy, curriculum, teaching practices and teacher education in developing countries' 2013
5 DFID 'Educational Technology Topic Guide' 2014

Teachers researching in their classrooms: Case study

Surma Begum, Assistant Teacher, Dhamrai Girls High School

Over 12 months, Surma, among 150 EIA teachers, has undertaken practical research activities in three cycles exploring new teaching practices to understand how they can improve learning for students. Her research study involved:

♦ Research inquiry into how to develop the weaker students in her Grade VII class

♦ Cycle 1 found that, despite updating previous lesson plan to use projector rather than blackboard, only the same 10% of students actively participated in class

♦ Cycle 2 found that, through playing audio of listening texts for pronunciation and using projector to show materials for vocabulary, 60% of students became involved in lessons

♦ Cycle 3 found that, using projector to play word games and using role play with real objects linked with their practical lives, 80% of students were engaged

♦ End of year school examination pass rates rose to 95% from 50%; and Surma's new research question is that, now the students are passing, how can their learning quality be increased day by day?

Support for the Pedagogical Process: *"We looked at videos of my classes and my peer teachers gave a real picture and suggestions – not just saying 'how nice' as others do!"*

Key Reflections from Group Discussions

In what ways can ICT enable and improve the quality and equity of teaching and learning through:

Teachers
♦ Support teachers to use ICT to make lessons more effective (not make power points!)
♦ Share videos of good examples of practice and areas of struggle with all teachers
♦ Motivate teachers to use, connect with others and to believe change is possible

Classroom Activities and Students:
♦ Support teachers to explore when and how to use activities and materials
♦ Make activities participatory, relevant to context and desired learning outcomes
♦ Allow students to learn different things relevant to their different learning situations

Head Teachers:
♦ Show supportive attitude to in-school development sessions on use of ICT in class
♦ Arrange teachers to observe others' classes, and for student and teacher feedback
♦ Carry out lesson observations, feedback and monitoring themselves

Education Officers:
♦ Help to make sure teachers are ready and want to use ICT being made available
♦ Participate in in-house and on-line development to take on this role
♦ Appreciate that all in system need to engage in preparing, supporting and monitoring

Teacher Training Colleges:
♦ Introduce common model of ICT for pedagogy with follow up for pre- and in-service
♦ Provide digital skills learning opportunities for teachers through variety of routes
♦ Become a hub for infrastructure and administration to empower teachers to use

NCTB Textbooks and Curriculum Guides:
♦ Make interactive and digital textbooks and curriculums available
♦ Create curriculum-pedagogy focused AV teacher professional development materials
♦ Provide supportive teacher professional development to use these for better teaching

Next steps

SESIP are to engage with EIA in the development of e-learning Modules