

## **National Information and Communications Technology (NICT) Strategy for Education(2009 Education Policy)**

Developed by the Ministry of Education, in collaboration with the Education Sector Reform Assistance (ESRA) programme supported by the United States Agency for International Development (USAID), the Ministry of Information Technology (IT) and the provincial education departments, this new strategy intends to offer a strategic direction for the mainstreaming of information and communication technologies (ICTs) (computers, telephones, video, radio, and television) in the education system of Pakistan.

With plans for ICT to complement the existing systems and delivery modes, the strategy includes six key elements namely: 1) use of ICTs to extend the reach of educational opportunity; 2) application of ICTs to strengthen the quality of teaching and educational management; 3) employment of ICTs to enhance student learning; 4) development of complementary approaches for the use of ICTs in education; 5) building on current experiences of existing and successful programmes; and 6) development of capacity at the federal and provincial department level. :

**Element 1:** Use ICT to extend the reach of educational opportunity: Utilize ICT creatively to assist teachers and students with a wide range of abilities and from varied socio-economic backgrounds. Action Recommendations: Determine the context and needs of the students, educators, and/or citizens whom you seek to serve.

1. Research uses of ICT including, and other than, computers.
2. Invest in needs-based and best practice ICT models.
3. Develop funding mechanisms to cut the cost of ICT for education.
4. Initiate an awareness campaign.

**Element 2:** Apply ICT to strengthen the quality of teaching and educational management: Use ICT to maximise opportunities for educators' continuous learning and to help educators understand and effectively use ICT. Action Recommendations:

1. View teachers' professional development as a top priority.
2. Match ICT selection to teachers' specific needs.
3. Set guidelines for ICT training for teachers.
4. Select a strategic blend of professional development models based on research of innovative educational practices.
5. Provide training and resources for teachers to produce their own materials.
6. Provide follow-up and support.
7. Ensure that educators know how to teach with ICT.
8. Create a system of incentives and support for teachers to use ICT.
9. Establish a national educational portal.

**Element 3:** Employ ICT to enhance student learning: Integrate ICT into schools and learning

centres to support students' self-paced learning and provide them with chances to explore, investigate, reflect, learn social skills (such as collaboration, logical reasoning, and creative expression), and enhance self-esteem. Action Recommendations:

1. Reform curriculum guidelines.
2. Seek and develop content resources.
3. Improve national examination systems.
4. Make learner-centred instruction the focus.

**Element 4:** Develop complementary approaches to using ICT in education: Support students and teachers in developing key ICT competencies (including sophisticated problem-solving and critical thinking skills) by treating ICT as a school subject, as well as a critical instructional aid. Action Recommendation:

1. Establish competency-based curricula and certification.

**Element 5:** Build on the current experiences of existing and successful ICT programmes: Gather, organise, provide access to, share, and use for planning purposes national and international data on effective approaches to using ICT in education. Action Recommendations:

1. Establish an official clearinghouse system to gather and distribute information on effective ICT programmes.
2. Ensure that information from the clearinghouse system reaches stakeholders.
3. Encourage an international exchange of information about effective ICT programmes and best practices.
4. Monitor and evaluate Pakistan's ICT projects in order to identify and replicate effective models.
5. Facilitate the initiation and growth of ICT projects/approaches that evaluation results prove to be effective.

**Element 6:** Develop capacity at the federal and provincial department of education levels: Form a new office of the government to represent the cause of ICT in Education and advise the [Ministry of Education] MoE. Action Recommendations:

1. Set up an office of ICT integration - a Technical Implementation Unit (TIU) - within the MoE.
2. Authorise the TIU to carry out key functions to advance the mission of the MoE."