

Chapter 9

Technology Integration and Upgradation of Higher Secondary Education: Need of the Hour in Pakistan

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ABSTRACT

Given the growing impact of Science and Technology, particularly, information and communication technologies on every dimension of human life today, many parts of the world have been quicker in their response to the change for their own betterment. The wise realize that education lies at the centre of development in all fields. Therefore, these nations are now focused on upgrading all tiers of education to equip their youth with all essential skills to not only survive but lead their nations through 21st century. Pakistan is, unfortunately, one of the countries that lag behind. It has been, though, successful in upgradation of higher education. A lot needs to be done to bring school and college education up to the mark. Higher secondary education needs specific focus as this stage marks transitional phase of a child from adolescence to early adulthood at 16-18; hence significant changes in child's overall personality.

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INTRODUCTION

Technology, in general, and communication technology, in particular, has revolutionized our everyday life mode. Humankind, ever thirsty for knowledge, now has it all on hand in a small accessible gadget—mini laptop, tablet, iPhone or smartphone. The gadget wonderfully carries all sources of information just a tap away. It also at the same time caters our need to socialize. We are in touch 24/7 with people around the globe to share all sorts of useful information. It is this valuable aspect of communication technology that many teachers have now begun to utilize to facilitate teaching-learning process across board. Education has been particularly adapted to serve the demands of the 21st century because it is the most effective means to cast an individual's, a community's, a society's and a nation's attitude. Today, leading nations are the ones that lead in science and technology on all fronts; a nation's opportunity lies in fast technologization of its education system across all levels. This drive has, in many advanced and advancing parts of the world, changed the shape of education into educational technology, instructional technology, digital learning and so on.

However, Pakistan is still struggling to make information and communication technologies (ICTs) an integral component of education at school and college levels. Whereas in higher education, the country has been considerably successful in introducing technology into the classroom in the form of overhead projectors, multimedia projectors, smart computer labs, Computer Assisted Language Learning (CALL) labs, free access to Wi-Fi, facilitating digital learning, etc. This, the government was able to achieve, through a successful collaboration of Higher Education Commission (HEC), Ministry of Science and Technology and civil societies involved. Since schools and colleges form the foundation of the entire infrastructure, therefore, Government needs to take serious steps to galvanize all stakeholders including secondary education boards, intermediate education boards, representatives of school and college associations at district levels and parents for a concerted effort towards upgrading the current education, allowing for greater use of technology inside and outside classroom to facilitate students' learning and knowledge development.

It is worth noting here that the current chapter excludes any discussion on Advanced Level of General Certificate of Education which is equivalent of higher secondary school certificate. This is so because the system functions directly under foreign educational bodies, and follows international standards from course designs (selection of units/chapters and exercises), methodologies, audio-visual aids, to physical setting for learning. The chapter discusses in detail the system of higher secondary education functioning under Ministry of Education, Government of Pakistan, represented by Boards of Intermediate Secondary Education across the country.

BACKGROUND

Every religion and society acknowledges education to be a fundamental human right. Everyone knows that this is the only path to the development of nations. The kind of education a child or an individual receives serves as touchstone of their overall development, in particular and that of society in general. Therefore, the type and quality of education matter a great deal. The nations that have fast upgraded their syllabi and mode of education delivery according to the demands of the time are the ones leading in human advancement on all fronts, leaving much behind them the laggard nations. Pakistan's case is a perfect example for validation. Here students are still taught about nine planets in the solar system.

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