B.Ed 1 ½ year

HIGHER EDUCATION

Course Code 8625

Department of Secondary Teacher Education
ALLAMA IQBAL OPEN UNIVERSITY

HIGHER EDUCATION

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COURSE INTRODUCTION

The course 'Higher Education' has been designed and developed for the prospective teachers with the vision to give them in-depth understanding about the nature, need and scope of higher education in Pakistan. With the emergence of globalization and knowledge driven economies role of higher education has become even more critical in socio-economic development of any nation. It is impetus for the prospective teachers to be well aware of diverse aspects of higher education including but not limited to the role of universities, philosophy of higher education, and economics of higher education.

The course will expose you to the philosophical foundations and developments of higher education in Pakistan. In global perspective it will acquaint you to the systems of education in both developing and the developed countries. Assessment in the context of higher education has also been discussed in detail. An effort has been made to highlight the problems and issue in the system of higher education in Pakistan in order to make prospective teachers sensitized and enable them to critically analyze the root causes and the possible solutions of these problems. A special attention has been given to the description of innovations and emerging trends in the field of higher education.

We hope that this course will be of great value to the prospective teachers in enhancing their knowledge and transforming their attitude as a responsible member of society in general and of higher education system in particular. Prospective teachers will find it helpful in many dimensions; as a student of higher education and as a contributor of the system who shapes future of higher education.

Dr. Munazza Ambreen
Course Coordinator

OBJECTIVES

After studying this course the prospective teachers will be able to:

1. delineate the nature and extent of Higher Education.
2. identify significant changes, which have taken place in the field of higher education and the manner in which they are influencing the systems of education.
3. identify effect crucial problems and issues confronting Higher Education.
4. establish relationship between the process of Higher Education and development and analyze the emerging role which Higher Education is assigned to play in the socio-economic development of the country.
5. work out the implications of the political process for higher Education and find out their impact on each other.
6. identify relevant innovation in Higher education and critically discuss their role in higher education.

FOREWORD

The present era is characterized by incredible advancements and tremendous changes in all walks of life. We have witnessed how the evolution of information technology has transformed the world and we have observed the inevitability of knowledge advancement as we are already in knowledge driven economy. These advancements are accompanied by many challenges, problems and issues. Globalization as a phenomenon has resulted in increased competitiveness and emergence of knowledge driven economy resulted in increased dependence of socio-economic development upon the knowledge and skills of the members of the society consequently the significance of higher education as a major driver of socio-economic development has been well established. To remain competitive in this globalized age all stake holders are looking with hope towards the sector of higher education which is not only responsible to train and educate youth of the society in a way that they are able to serve the society and to contribute in its socio-economic development, but is also responsible to produce knowledge that is required to compete with the world. Keeping in view the significance of higher education sector, this course will be an effort to highlight the importance of this sector to the prospective teachers and will equip them with the knowledge, skills and attributes to play their role in expansion and quality improvement of this sector.

I want to convey my pleasure, gratitude and felicitation to the course team for their sincere endeavors to offer this much needed course.

Dean Faculty of Education
Allama Iqbal Open University

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Unit–1

INTRODUCTION TO HIGHER EDUCATION

Written by: Mr. Maqsood Ahmed
Reviewed by: Dr. Munazza Ambreen

Introduction

The human resource development of a country depends upon the quality of education imparted in country (Mohanthy, 2000). Higher education caters to the education in the colleges and universities. Allen (1988) observed "It is academically consider suitable to present distinctive feature of two stages for the purpose of clarity of concepts and avoiding duplication" Higher education is, without any doubt a stage quite distinct from primary, secondary, elementary, and higher secondary stages. In this unit we will discuss about the nature of this stage i.e Higher Education and will try to figure out the need of higher education for a society. The unit will also help you understand the scope of higher education in different societies and the status of higher education in Pakistan.

Objectives of the Unit

After studying this unit, the students will be able to:

- explain the nature of higher education as a distinct stage of education.
- discuss the need of higher education for a society.
- elaborate the Scope of Higher Education
- discuss the planning of higher education in Pakistan.
- describe the status of higher education in Pakistan.
- discuss the key factors influencing higher education in Pakistan.

1.1 Nature of Higher Education

1.1.1 Meaning of Higher Education

Higher Education is defined any of the various types of Education given in post-secondary institutions of learning, and usually affording, at the end of a course of study, a Degree, diploma or certificate of Higher Studies. Higher Educational Institutions include not only Universities and Colleges, but also various Professional Schools that provide preparation in such fields as law, medicine, business, art, music, and engineering.

The World Bank Study on Higher Education defines, "all formal post-secondary institutions that train middle and high level professional personnel in degree, diploma and certificate granting programmes"(The World Bank, 2000).

Elaborating the diversity of the Higher Education system, the report on "Higher Education in Developing Countries — Peril and Promise" talks of vertical differentiation and the proliferation of the system "with the traditional research university being joined by polytechnics, professional schools, institutions that grant degrees but do not conduct research and community colleges" (The World Bank, 2000).

The terms higher education, tertiary education and post-secondary education are used interchangeably (The World Bank, 2000).

In Higher Education means excellence in different subjects, i.e., both Science and Social Sciences. Advancement in science subjects is necessary for material progress whereas Higher Education in the subjects of human and social sciences, humanities and arts, language and literature is essential for cultural growth and the development of interpersonal relations among people. Higher Education is considered as indispensable for nation building. There is a worldwide recognition that centres of higher leaming such as universities, professional colleges, institutes, etc. are powerful institutions for raising the cultural plane of a society. In advanced countries, universities constitute the mainspring of knowledge, ideas, and innovations. Without achieving excellence in Higher Education, it would not be possible for any society to produce leaders of thought and action. Higher Education is considered and recognized as a capital investment, all over the world. Higher Education is usually provided by universities and colleges.

University: is defined as educational institution designed for instruction, examination, or both, of students in many branches of advanced learning, conferring Degrees in various faculties, and often embodying colleges and similar institutions.

According to the modern concept of education, a University is a city of the universe. This meaning essentially includes knowledge and information of all disciplines. In this sense, the University is primarily chartered for research and information which each of its faculty unearths and passes on to the younger generations for the benefit of the community and the society at large. In this context, it remains a repository of knowledge. In the modern age, the main function of a University includes the development of

human resources and the quality of human development which must reflect the cultivation of skilled knowledge and human spiritual values. A University which involves heavy investment of society has an obligation to serve it; and it must be committed to its people and should also concentrate on issues of national concern. Its Higher Educational System should incorporate the inseparability of research and teaching, on both intellectual and practical grounds, and development of some essential virtues — free inquiry, scholarly honesty, civility and discourse, toleration of diverse beliefs, views and values, and trust in rationality and verifiability — all of these must be taught and practised by higher educational institutions, as the Standard Scientific Method, as coupled with the latest Holistic Approach, combining creativity, analysis and synthesis, rationality and intuition. The stress is on creativity.

Activity: Discuss with your peers and explore their perceptions and expectations related to higher education.

For further reading:

Isani, U. A., & Virk, M. L. (2005).	*Higher education in Pakistan: A historical and futuristic perspective*. National Book Foundation.

1.2 Need and Scope of Higher Education

Higher education improves an individual's quality of life. Studies show that, compared to high school graduates, college graduates have longer life spans, better access to health care, better dietary and health practices, greater economic stability and security, more prestigious employment and greater job satisfaction, less dependency on government assistance, greater knowledge of government, greater community service and leadership, more volunteer work, more self-confidence, and less criminal activity and incarceration. In addition, college graduates supposedly have greater use of seatbelts, more continuing education, greater Internet access, greater attendance at live performances, greater participation in leisure and artistic activities, more book purchases, and higher voting rates.

Higher education, theoretically, will also enable individuals to expand their knowledge and skills, express their thoughts clearly in speech and in writing, grasp abstract concepts and theories, and increase their understanding of the world and their community.

1.2.1 The Purpose of Higher Education

The Purpose of Higher Education is manifold:

a) Supporting and enhancing the process of economic and social development
b) To enable individuals to achieve excellence;
c) To strengthen the micro-management infra-structure of society, and to train national

'Managers" of "Collective Leadership";

d) To create specialized expertise like in agriculture, medicine, nuclear, space, chemical, and energy fields;
e) To inspire education at different levels;
f) To coordinate at the national level;
g) Human resource development.

1.2.2 The Need for Higher Education

Most young people face important questions as they approach at the stage of higher education. Why continue your education beyond high school? What options are available?

1.2.2.1 Different Purposes

Higher education serves many purposes, only some of which are emphasized in our culture. Because we as a society don't acknowledge the full span of reasons for pursuing education after high school, some young people may think it's not for them and, therefore, miss out on many of the potential benefits that such an educational experience provides. Below, we'll look at some well-known and not-so-well-known purposes the various forms of higher education may serve – from vocational schools and certificate programs to Associate's and Bachelor's degree programs. It's not just about learning; it's about the opportunity for further personal development as well.

(i) Career Preparation

Some young people have a pretty solid idea of what type of career they would like to have as an adult. For such people, post-secondary education will primarily serve as a means for gaining the skills, training and knowledge necessary to enter their desired profession.

This is one of the most acknowledged reasons for people to seek higher education. However, many young people aren't sure what they want to do – *and that's okay*. Having goals is great, but nothing says that we need to have our lives totally planned out by the age of 17.

(ii) Broader Practical Benefits

Preparing oneself for a career isn't the only practical benefit of a college education. People who seek education beyond high school are likely to be better off in terms of economic well-being, physical health and participation in political and community affairs. Regardless of what you study, devoting time to educating yourself and training your brain beyond high school comes with many potential benefits.

(iii) Personal Development

Not all skills are clearly connected to a career or statistics, but they can be equally as important to a well-rounded, fulfilling life. The following benefits, typically derived from a successful higher education experience, can prove to be major enhancements to your life:

- **Better communication (written and verbal):** Many higher education programs feature advanced writing and speaking assignments; this trains individuals to express themselves clearly and communicate more effectively with others.

- **Critical thinking skills:** The ability to think and to think well – to ask questions, to analyze and to reflect, for example – is crucial to all areas of life. The ability to identify and solve problems comes in handy in one's personal and social life as well as on the job. Critical thinking skills can be cultivated in any number of higher education programs.
- **Identification of skills:** Young people may find that they have skills they didn't know they had as they are exposed to new things and new ideas in a higher education environment.
- **Realization of passions:** Young people may be shocked to learn that they love physics in college, or that they really want to pursue art. Putting yourself in an educational setting where you can dabble with different disciplines can wake you up to passions you never knew or realized were there.
- **Greater sense of discipline:** While programs vary, in many higher education settings, students are given more responsibility than ever before. They must take initiative, manage their time well and remain organized. These skills can transfer to all other areas of life, from keeping one's living space liveable to being a reliable person to excelling at one's job.
- **Sense of accomplishment:** The choice to enter and complete a higher education program is based purely on a person's initiative, and the sense of accomplishment that comes from going "above and beyond" is something that can instill you with the confidence to pursue whatever you desire in life.

  Not all benefits of education are career-oriented, although the above benefits do have practical applications in that area as well. Developing oneself in the above ways is extremely valuable, and higher education can help you do so.

(iv) Pursuing a Passion

This is perhaps the least-accepted reason, culturally, to pursue higher education. Some hold that the time and financial investment of post-secondary school should only be pursued with practical, concrete career goals in mind. However, pursuing our passions is an extremely important component of a healthy, well-lived life. We can figure out ways to apply our passions as we pursue them.

*"Education is not the filling of a pail, but the lighting of a fire." (*William Butler Yeats)

Education is not only a tool for making money – it can be good for our hearts and souls as well, and help us figure out how we want to live. On top of the well-being that comes with pursuing a passion through higher education, one gets the additional benefits mentioned above, making it not only fulfilling, but very practical as well.

Activity: Interview three to four teachers teaching at higher level regarding purposes of higher education with special reference to Pakistan.

For further reading:

Bergan, S., Guarga, R., Polak, E. E., Sobrinho, J. D., Tandon, R., & Tilak, J. B. (2009).	Public responsibility for higher education. In *UNESCO World Conference on Higher Education, Paris.*

1.2.3 Importance of Higher Education

Pursing a higher education, starting with an associate's degree or a bachelor's degree, perhaps working up to master's or doctorate-level studies, leads to better job prospects and higher paying positions. Higher education can also lead to a healthier and more balanced life, according to some research, all of which may factor into a decision to study at this level.

(i) Career Benefits

With a college education, you will probably make more money. Unemployment rates are also affected by higher education. Along with these benefits, you're likely to have more career choices and will probably be able to change careers more easily than those who have not completed some form of higher education. Even if you already hold a bachelor's degree, there are economic benefits to completing additional, graduate-level studies.

(ii) Social Benefits

One is less likely to live in poverty if you have earned a college degree. Higher education has other societal benefits, too. If you earn a college degree, you'll probably be better able to spend money to stimulate the economy. You'll also be more likely to volunteer and help the community you in which you live.

(iii) Personal Benefits

Pursuing higher education may help you to become more sensitive to cultural differences and be able to respect the beliefs of all types of people. After completing a college degree, you'll have a broader set of career options, which often leads to increased personal choice and freedom. You could even be healthier as a college graduate, as well.

Activity: Launch a discussion among your fellow students about importance of higher education and explore their views related to personal and career benefits of higher education in Pakistan.

For further reading, consult the report:

Promotion of Education in Pakistan Foundation (2006).	*Leaping Forward: A report on higher education in Pakistan*

1.3 Higher Education in Pakistan (Perspective – Planning)

Higher education is recognized today as a capital investment and is of paramount importance for economic and social development of the country (Barnet, 1990). Institutions of higher education have the primary responsibility for equipping individuals with advanced knowledge and skills required for positions of responsibility in government, business, and other professions (Mughal & Manzoor, 1999). Quality higher education is a source of great potential for the socio economic and cultural development of the country. Stone, Horejs, & Lomas (1997) found "The nation can be transformed into a developed nation within the life time of a single generation." Factors such as the

distinctive nature of higher education institutions, international mobility of students, and teacher's accessibility of computer based learning pursuit of research and scholarship, globalization of economy, and emerging challenges of the 21st century have a direct impact on the future development of higher education. (Mughal & Manzoor, 1999).

The purpose of higher education is not simply to impart knowledge in certain branches of knowledge; it has deeper meaning and objectives. The purpose may be multidimensional and may be termed as personal, social, economic, and cultural (Moore & Farris, 1991). Education and particularly higher education cannot be divorced from its milieu and social context. Religious, moral, historical, and cultural ethos permeates through the fabric of the educational system of a country (Best, 1994).

The people in Pakistan are neither deficient in talent nor in moral qualities in comparison to any other nation of the world, but about two centuries of foreign rule and blind imitation of western attitudes and methods, unsuited to the genius and spiritual conditions of its people, have spoiled some of the virtues and have brought a bad name to their intellectual capacities (Siddiq, 1978). Hassan (1990) observed "Pakistan is unfortunately really backward in education as in certain other spheres of intellectual activities but luckily people are not inherently incompetent or morally incurable." It is however necessary that the diagnosis about maladies should be correct and the measures for curing these maladies should be appropriate in the light of that diagnosis (Abdullah, 1992).

Activity: Search interviews of Chairman Higher Education Commission, Pakistan, listen the interviews carefully and note important points related to planning and status of higher education in Pakistan.

1.3.1 Challenges in Higher Education

Higher education is faced with very severe challenges in the shape of various economic, social, political, and moral changes, and its future depends on the response made by its people to these challenges (Rao, 2003).

Hayes (1987) found "The problems plaguing the educational system of Pakistan are multidimensional like population explosion, lack of resources, non-participation of the private sector, scarcity of qualified man power, inconsistency in the policies of various regimes, political instability, inefficient educational management system, wastage of resources, and poor implementation of policies and programme etc."

The major challenges in higher education include:

(i) Quantity

Despite the constraints of resources, the quantitative expansion has been highly spectacular in the post-independence period. The institutions have not only been multiplied, the student enrolments at colleges and universities have registered exceptionally high rate of growth.

"The quantitative expansion is evident due to increasing aspiration of the people and social, economic, and political forces influencing the development of higher

education. In the post-independence period, the role of higher education has been very well recognized in the development of science and technology, as well as various arenas of human advancement" (Mohanthy, 2000).

(ii) Equity

Qureshi (1997) stated "The ideal of equity was severely constrained by exiting in qualities in the distribution of property and productive resources, low level of education and awareness among the people, and strong influences exercised by individual and group to further their own sectional interest rather than total social interest."

(iii) Quality

Development of society not only depends upon quantity of goods and services produced, but also on their quality. "It again leads to quality of life of the people and the quality of the society in general" (Hayes, 1987). It is rightly said that the philosophical basis of quality is the innate characteristics of a human being to attain a higher standard and the need of excellence for attaining a higher stage in the development (Quddus, 1990).

Attempts to realize specific objectives of quality tend to narrow down the scope and discourage efforts to attain quality in various walks of life. Allen (1988) determined that "Various programs have been developed and are being implemented for the last two decades for improving the quality of teachers and their proficiency in discharging their duties and responsibilities."

(iv) Student Unrest

Among the challenges of higher education is the vital role of addressing students unrest. Bayli (1987) studied that "The condition of higher education in universities and colleges is not satisfactory in the eyes of students. Lack of physical and educational facilities is bringing much hindrance in the way of development". Iqbal (1981) states "Teachers are less motivated to do certain research work. Most teachers are not competent, and they are teaching in higher education institutions." They have limited knowledge about subject matter they taught and many of them have no clear idea about the subject. "Even in Pakistani universities, the teacher at M.Phil and Ph.D. level, are not competent" (Rao, 2003). "They feel it difficult to indulge in research work due to lack of knowledge about research methodologies" (Mughal & Manzoor, 1999).

(v) Emotional Integration

Education can play a vital role in strengthening emotional integration. It is felt that education should not aim at imparting knowledge but should develop all aspects of a student's personality

"Students, the future citizens of the country, should be trained in democracy, its value and ideals so that they will have sense of justice which is conducive for the development of national integration especially in the particular situation of developing countries which are striving to build up a structure of democratic living" (Rao, 2003).

(vi) Administrative Reform

In the last fifteen years or so, Pakistan has been giving increasing attention to the problems of university administration (Adeeb, 1996). Abdullah (1992) observed

"They have noticed that despite the resources available for university expansion, they have not been able to obtain the best possible results." "Further they have also begun to realize that much of this is due to lack of proper administration and what the outcome is on the development of higher education" (Aeth, 1975).

Social and cultural factors, which are often ignored, are as significant as any of the purely technical factors in the formulation and implementation of administration policy. Barnet (1990) states that "The linkages between the policy and these factors are neither casual nor limited to the contemporary period so the university administration clearly demonstrates that the success or failure of university administrative reforms hinges on the presence and absence of certain variables given below."

1. Strong commitment and determined leadership
2. Appropriate political environment
3. Supportive social environment
4. Types of reform agents
5. Nature of reforms
6. Favourable bureaucratic attitude towards change

(vii) Faculty

The current size of present faculty is very small according to the general international standard. Mughal & Manzoor (1999) found that "The teacher/student ratio is very small even according to many third world countries standards. The quality of university education at the college has decreased because of the exiting faculty". "Many present faculty members are teaching courses which are not their own specialization" (Bayli, 1987). "Many faculty members in most of universities are just master degree holders with little or no practical knowledge and higher education experiences" (Iqbal, 1981).

"The salary, financial rewards and benefits for the faculty is very low according to the rising cost of living in Pakistan. The higher education commission is making an effort to provide facilities to their teachers and hiring foreign faculty for the uplift of educational standards in Pakistan" (Rao, 2003). Still the staff and technical support of the teaching professor are not present. Adeeb (1996) found that "There is no real plan or set of rules for teaching evaluation or teaching effectiveness. The above problem is a great challenge for higher education in Pakistan."

(viii) Educational Policies

The faculty should have primary responsibilities for determining the educational policies of the institution. Barnet (1990) found "If this responsibility is not conferred and defined by the character of the institution, it should be expressed in legislation of the governing board." "Educational polices include such fundamental matters as the subject matter and methods of instruction, facilities and support for the research work of faculty members and students, standards for admission of students, etc" (Aeth, 1975).

Mohanthy (2000) observed that "The faculty should also actively participate in decisions made on other matters that may directly affect the educational policies for which it is primarily responsible." "These matters include major changes in the size of the student body, significant alteration in the academic calendar, establishment

of new colleges and universities or division, the provision of extension services to the community, and assumption by the institution of research or service obligations to private or public agencies" (Allen, 1988).

(ix) Academic Freedom

The right of academic freedom must be recognized in order to enable the faculty members, researchers, and students to carry on their roles. Gibbons (1998) studied "The freedom of universities in making professional appointments, tenure research, salary scales, and all academic decision." "Academic freedom and university autonomy are sometimes regarded as synonymous, but they are two quite different concepts, although they overlap at many points" (Taylor &Tashakkori, 1997).

Rao (2003) found that "These two functions are the essence of the progress and development of the higher education and administrative endeavours." Quddus (1990) studied that "The basic function of a college or university is to preserve, augment, criticize, and transmit knowledge and to foster creative capacities." "These functions are performed by a community of scholars who must be free to exercise independent judgment in the planning and execution of their educational responsibilities" (Varghese, 1980).

"Unfortunately, a university may find it difficult to earn the academic freedom or autonomy and retain it in a new state where most, if not all, the cost of university education is a direct charge on the government" (Siddiq, 1978). Qureshi (1997) identified that "The board of trustees should be more concerned with matters affecting the relations of the university with the outside bodies and general policy than with the routine administration work which is dealt with by the university council."

(x) Courses and Curricula

The courses and curricula are not designed in accordance with the standard of higher education of the present day. Iqbal (1981) observed that "There is no continuity of some of the important courses: there is also no relationship between the related courses of common or similar knowledge." Bayli (1987) studied that "So many important and modern courses required for higher education are not taught at all." "The curricula are not written in detail and are left to the professors personal likes, dislikes, interests or experience" (Adeeb, 1996).

Quddus (1990) observed that "The basic science courses are not designed well to fit the need of the students, and they are not well organized, or correctly supervised by the department." "Generally speaking, there are not enough well equipped faculty and administration offices, classrooms, or engineering, science, and other laboratories for the growing student body and faculty members" (Hassan, 1990).

Taylor &Tashakkori (1997) studied that "The workshops at the higher level are not suitable for training, because necessary materials, equipment, space, and techniques are not up to the mark according to the required standard." "Equipment is old and not fit for some of the more specialize laboratory experiments" (Quddus, 1990). Varghese (1980) identify that "There has been constant change in and lowering of the standard of syllabi and courses leading to lazy mindedness resulting in lack of

urge for higher achievements." "Frequent change of study material and difficulties in availability is another contributory factor" (Quddus, 1990).

(xi) Budgeting and Financing

Central to all the foregoing is a new concept of budgeting and financing at the higher level. Bayli (1987) observed "The conventional system of an annual budget is probably the most confusing and least understood." "The budget of course, performs a number of essential functions which even the most frustrated will acknowledge" (Rao, 2003). Allen (1988) identify "The concern here is with the budget as an instrument of academic planning which may promote the special aims of each college and constitute a practical means by which all university purpose may be realized ideally it must not only insure financial solvency of the university, but should also place responsibility and commensurate authority where it may be exercised most."

Rao (2003) studied "In fact realistic planning and decisive action are the only way to prevent educational strategies from degenerating into irregular reactions to unforeseen exigencies." "The university's aim should be to fashion a system which in its year to year operation may provide for its own continuing renewal" (Adeeb, 1996).

(xii) Population Explosion

"The fast growing population in Pakistan and South Asian developing countries is another problem by causing overcrowding in the higher educational institution because the number of higher level institutions is deficient" (Hayes, 1987). Mohanthy (2000) observed "The demand for the quantitative expansion of education at all levels remains one of the primary concerns because of the continuous population expansion."

1.3.2 Suggestions to meet the Challenges

i. Stress is laid on the need for improving the quality of education at every stage so that a proper foundation can be laid for advanced study in science, engineering, agriculture, and those other areas which are most closely allied to the national economic development and reconstruction of the nation as a whole.

ii. To begin from the top without reforming the lower stages is against the law of nature; it is against the law of evolutionary progress. Before any restrictions are imposed on the higher education, the earlier stages should be improved so as to produce better students for the higher stage.

iii. A critical point to be considered by educational planner is the adaptation of a multidimensional, flexible, and dynamic education system, which serves people according to their ability and aptitude and is responsive to their economic, social political and cultural needs.

iv. The new system of higher education should be flexible enough to offer a variety of courses, formal and non formal, full time and part time, correspondence and media based to fit every individual as well as the economic needs of the country

v. Economic conditions of the people cannot be ignored in all matters in which the question of equal opportunities to all is involved. In an atmosphere of economic

depression as it is today in Pakistan how could one expect from our youth to be able to develop their potential qualities in desired way.

vi. The test of qualities must be made reliable upon examination and more effective; the teaching method must be made more rational and natural; and last of all, the teachers must be kept fully satisfied. It is well known, that a foreign medium of instruction and examination is seriously hampering the progress of education. Pakistan will have to determine its policy with regards to this question also.

vii. There is great question of availability of qualified university teachers, suitably equipped libraries, and fully developed plants and laboratories. It is a matter of common knowledge that our resources in all these areas are very merger. Any unnecessary addition to the number of the universities at present would therefore mean nothing, but more ill-fed and ill-equipped institutions with no specially or individuality of purpose.

Higher education institutions must be responsive to the challenges of the rapidly changing and challenging new world: expectation of society and growing demands of the rising student population. This policy therefore looks forward to a new beginning in higher education in developing country like Pakistan.

Activity: Read researches related to challenges in higher education and suggest some ways to deal with these challenges amicably.

1.3.3 The Economic Importance of Higher Education

Of all the economic growth initiatives available to the Government of Pakistan, perhaps none holds more promise and the possibility of large scale and sustainable returns than the effectiveness and expansion of the Higher Education infrastructure in Pakistan. This does not mean that the value of education is limited only to economic development. Its value extends -- and is universally viewed as extending -- well beyond its impact on economic performance, to encompass greater social impact contributing to a just, democratic, and enlightened society.

In considering the case for investment in higher education, the World Bank-UNESCO Task Force on Higher Education in Developing Countries emphasised economic growth and better living standards; development of enlightened leaders; expansion of choices, enabling social mobility and helping the talented to fulfil their potential; and the capacity to address local problems with appropriate solutions, in such vital areas as environmental protection, prevention and management of illness, industrial expansion and development of infrastructure. The report observed further: "These benefits are not automatic. They are linked to the character of higher education systems and institutions as well as to the broader social, political, and economic systems within which they are situated. Even a well-functioning higher education system, operating under the most favourable of circumstances, is not sufficient for social and economic development, but better higher education will certainly be necessary in most countries, if more vibrant development is to take place."

The report advocates that developing countries need to invest in good education that prepares graduates for versatility and skills of life-long learning, rather than narrowly in specific disciplines, to enable them to both identify and capitalise on trends in development as they emerge during their lives.

This advice is consistent with the other non-economic goals of higher education: the inculcation of the values of tolerance, responsibility, enterprise, creativity, and public duty. These require an open and non-hierarchical learning environment, a common base in core subjects and curriculum, and an emphasis on practicality and relevance.

1.3.4 The Effectiveness of Higher Education in Pakistan

The operating conditions of universities in Pakistan are summarised well by Dr. M. Latif Virk, as follows:

"The universities in their present form are not geared to create new knowledge, nor do their graduate-study programmes measure up to international standards….. Rapid expansion of the system (of higher education), limited financial input, and periodic student unrest have eroded the teaching and learning process despite the modernisation of curricula. The supply of funds to the universities is limited and coupled with inefficient use of public funds. The autonomy of the universities provided under their Acts is not only inadequate but also distorted. The research base in the universities is weak, and inadequately equipped libraries and laboratories and a shortage of qualified teachers continue to hinder the progress of higher education towards excellence."

The litany of problems outlined above by Dr. Virk and many other observers, as the Task Force discovered in its consultations with the academic community, is both long and depressing. It is not surprising therefore that students in publicly funded institutions get an education of mediocre quality, which does not prepare them to participate effectively in the economic, political, and social life of the country, leave alone the competitive global economy. Furthermore, of the population of 140 million, only 2.6 per cent of the age cohort of 17-23 years (less than 500,000) were enrolled in the colleges and universities of Pakistan (1996 figure). This is one of the lowest ratios anywhere in the world.

Thus, the country needs very significant improvement in the quality of higher education and considerable enhancement of its capacity.

1.3.5 Key Issues in Higher Education in Pakistan

The stakeholders have identified a list of longstanding maladies afflicting higher education in Pakistan. The most prominent amongst the issues identified are:

a) Ineffective governance and management structures and practices.
b) Inefficient use of available resources.
c) Inadequate funding.
d) Poor recruitment practices and inadequate development of faculty and staff.
e) Inadequate attention to research and support for it.

f) Politicisation of faculty, staff and students.
g) Strong scepticism about the realisation of reform.

1.3.6 Vision of Higher Education

Based on the observations of the participants of the seminars, and the vision expressed in the programme for Education Sector Reform (2001), the following vision statement has emerged:

Transformation of our institutions of higher education into world class seats of learning, equipped to foster high quality education, scholarship and research, to produce enlightened citizens with strong moral and ethical values that build a tolerant and pluralistic society rooted in the culture of Pakistan.

1.3.7 Recommendations for Improvement In Higher Education

In the time available, the Task Force has identified for immediate attention of policy makers the following crucial recommendations that apply principally to universities and can bring about significant change. The recommendations are based on principles that apply to both public and private sector institutions.

(i) University Governance and Management

Universities are the pillars of the higher education system. They must have autonomy from all extraneous influences in order to govern and manage their academic, administrative, and financial functions. In particular, universities must have autonomy to develop their academic programmes; recruit, assess, and develop their faculty; and select, train and educate their students. The present organisational structure, including the Senates and Syndicates, has too many weaknesses of which the principal one is an inadequate separation of governance from the functions and responsibilities of management.

In order to ensure accountability for institutional performance, each university must have a strong and independent governing or policy making body that may be called a Governing Board (GB) appointed by the Chancellor from candidates nominated by a nominating committee of the Board, and an independent system of management that is accountable to it. The Chief Executive Officer of the university (Vice Chancellor or Rector or President) must be identified through a formal and open search process, and appointed by the Chancellor from a selection of candidates recommended by the GB.

(ii) Central Coordination and Support for Quality

The Task Force recommends that a central body is needed for facilitating quality assurance of higher education in both the public and private sectors, and linking funding by the Federal Government for public universities to the quality of performance, akin to the principle used by the Higher Education Funding Councils in the U.K.

The central body is conceptualised as the focal component of a network of independently governed institutions that provides diversity of expertise and promotes synergy and efficient utilisation of the country's resources for higher education and research. It is conceptually different from the UGC and would replace it, and would be called the Higher Education Commission (HEC), with the following salient features:

a) To plan, develop and accredit public and private sector institutions of higher education.
b) To raise funds for itself and for higher education.
c) The HEC would be governed and managed independently as an autonomous body linked to the Ministry of Education.
d) HEC should have the capability of receiving, managing and being accountable for block grants provided by the Ministry of Finance.
e) In order to ensure accountability for institutional performance, the HEC must have a strong and independent Board of Governors appointed by the President from candidates nominated by a nominating committee of the Board, and an independent system of management that is accountable to it.
f) The Chairman of the Board, functioning in an honorary capacity, should have the rank of a Minister of State.
g) The appointment of the Chairman and members of the Board, as well as the Chief Executive Officer, should be based on merit, free from political, bureaucratic or other extraneous influence.
h) The Chief Executive Officer (CEO), the only full-time Board member, must be identified through a formal search process, and appointed by the President from a selection of candidates recommended by the Board of Governors.

(iii) Funding

Universities in Pakistan require significantly more financial resources than the current allocations. In the proposed higher education system, with improved financial management, provision for funding should be made through an annual review of a three year rolling budget, and the development of permanent sources of support such as endowments.

Further study is required to determine the financial requirements for improving the quality of higher education in colleges.

Funding from the Federal Government to all public sector universities for recurrent costs in 2001-2002 is Rs 2.9 billion (salaries, 75%; utilities, 8%); in addition, the developmental grant is Rs. 0.4 billion. The allocation for research is Rs 0.04 billion, 1.2% of the total grant. The self-generated income of universities is approximately Rs 3.2 billion. Thus, the total funds available are about Rs 6.5 billion. The Task Force recommends an enhancement of the Government grant by Rs. 5 billion annually in order to improve recruitment and retention of competent and qualified faculty and staff; develop infrastructure for research; provide adequate libraries, electronic access to information and communication, equipment and maintenance; and refurbish the dilapidated physical facilities.

The Task Force recommends that the Provincial Governments should also contribute to the funding of universities.

Creation of an endowment of Rs. 20 billion will provide about Rs. 1.6 billion annually to support research, faculty and staff development, and facilitate financial assistance to deserving students.

Tuition and fees, which currently cover a rather small portion of costs, should reflect the real cost of an educational programme, but should neither be the main source of institutional funding nor an impediment to access for those who cannot afford the cost of education and subsistence. The full cost of the academic programmes should be stated in the student's bill, with institutional subsidies clearly indicated, so that students and parents are made aware of the extensive support they are receiving.

Fund-raising by individual universities must take place, and the Government should provide matching grants as an incentive, as is the case in most parts of the world.

To provide incentives for philanthropy, tax exemptions by the Government for donations and endowments are recommended.

(iv) Faculty and Staff

Current emoluments are grossly inadequate to recruit and retain good quality faculty and staff. Emoluments should be de-linked from the Government's Basic Pay Scales, and should be appropriate for recruitment and retention of quality teachers and staff. Provision for in-service training is a critical requirement for improved performance.

(v) Research

Research is conspicuous by its absence in our seats of higher learning. Research is a critical activity and must be assigned a high priority by making a major allocation of funds, creation of endowments and an enabling environment. The capacity of faculty and students for research should be enhanced.

Linkages with business and industry are essential not only for employment of graduates but also for relevance of curricula and research, and should be accorded a high priority. In addition, synergy should be sought through financial incentives provided by the government to encourage funding of higher education.

(vi) Curriculum

Serious reconsideration should be given to the current practice of early specialisation in schools (starting in grade 8), and the inclusion of general education in programmes in order to prepare candidates for critical and moral reasoning, effective communication, and self-directed life-long learning. Such enrichment of curricula will encourage good citizenship, adaptability, and innovation, thereby facilitating the continuous renewal of economic and social structures relevant to a fast-changing world.

There is a felt need to develop a long term strategy for higher education if Pakistan, is to become competitive in the rapidly emerging global economy, and occupy its rightful leadership role in the Muslim Ummah. For international comparability, universities should aim for awarding a Bachelor's degree after 16 years of education instead of the current requirement of 14 years. Initially, a 4-year Honours Bachelor's degree should be an essential requirement for admission to a Master's programme.

(vi) Issues Requiring Follow-Up

The Task Force considers that the following important issues need to be studied further:

a) Curricula
b) Review of colleges with regard to their functions, funding, governance, and management
c) Professional education and its relationship to universities, and quality assurance by the HEC and professional councils
d) Funding requirements of institutions of higher education in the light of the restructured system
e) Requirements for supporting research in universities.
f) Assessment of academic achievement, and its use for the selection of students for higher education
g) Development of a reliable database on higher education

(vii) Implementation

The Task Force recommends the appointment of a Steering Committee in order to develop a plan for implementation in accordance with the recommendations, to oversee the drafting of necessary legislation and establish the HEC.

The implementation should be phased, beginning with the establishment of the HEC. While this activity is in progress, universities should be encouraged to improve the efficiency of their management, and review the membership of their structures under the current universities Acts, and be provided appropriate guidance. The search for identifying appropriate candidates for the Boards of Governors of the HEC and universities should begin.

Activity: Search out presentations and material available on HEC's official website related to governance, funding, facilities and quality assurance measures taken by Higher Education Commission, Pakistan to uplift the standard of Higher Education in Pakistan.

Further reading recommended for better understanding:

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The Role of Higher Education in Society: Quality and pertinence	2nd UNESCO- Non-Governmental Organizations Collective Consultation on Higher Education Paris, 8-11 April 1991

Manuel Pacheco, (1999).	The changing nature of higher education ACRL Ninth National Conference April 8-11, 1999 Detroit, Michigan
Syed Zubair Haider	Challenges in Higher Education: Special reference to Pakistan and South Asian Developing Countries Nonpartisan Education Review / Essays: Volume 4, Number 2

Self-Assessment Questions

1. What is the nature of Higher Education? How is it different from other levels of education?
2. Critically discuss the scope of higher education in Pakistan.
3. How do you see the future of higher education in Pakistan?

Exercise Questions/Activities

1. Keeping in view the current scenario of Pakistan, highlight the need of Higher Education.
2. Write down the progress of higher education in Pakistan.
3. Do you agree that our current system of higher education is fulfilling the needs of country and society?
4. Analyze the nature, need and scope of higher education in Pakistan.
5. Write a note on planning of higher education in Pakistan.
6. Why higher education is needed in country like Pakistan and how well it is being planned. Elaborate in detail.

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Unit–2

ROLE OF THE UNIVERSITY

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Introduction

Higher education refers to post-secondary education. It is a system in which the secondary students are inputs and graduates or postgraduates are outputs who become the part of economic life in practical field. For economic and social development of a country, higher education plays a vital role. The institutions imparting higher education share responsibility of equipping students with advanced and updated knowledge and skills that are prescribed by the government as a need of a particular society. The highly educated manpower can handle advanced technology in all sorts of professions, business and the responsible positions of the government. Without higher education, no society can progress economically. Thus the need and importance of higher education must be realized by the policy and decision makers of any country. The present unit will help you know about philosophy of higher education in general as well as in Pakistani Context. An attempt in this unit has been made to explore the need of a university from different aspects and modes of universities being practiced in different countries; unit also takes into focus the functions of the university in a society.

Objectives

After studying this unit, the students will have the ability to

- discuss the nature and features of philosophy of education particularly for higher education
- highlight the urgency and need to get higher education in universities
- explain the modes of university education and their applicability in Pakistani Context
- critically apprehend the role and functions of university education

2.1 Philosophy of Higher Education

The philosophy of education can be well-defined as the study of the objectives, procedures, nature and principles of education. The word 'education' is derived from one or both of the following concepts:

- 'Educare' – to draw out and realize potential;
- 'Educere' – to bring up and nurture.

Both of these concepts fuse in Kant's famous statement that the objective of education is to empower humanity to grow and to progress: 'Man can only become man by education' (Kant 1803/1960: 6).

Sharing of knowledge and experiences has been one of the major keys for human success and survival for millennia. The sense of shared responsibility of community begins from homes: from parent to child, from scholar to learner and from craftsman to apprentice. In this age of internet, where we find human understanding as a Google-search way, the role and philosophy of education still needs to be well defined. What is needed to cater the needs of today's learners is proposed to be distilled into four categories.

1. Curriculum
2. Teaching Staff
3. Learning Environment
4. Learning Community/Cadre

These four pillars emerge from theory or philosophy of education.

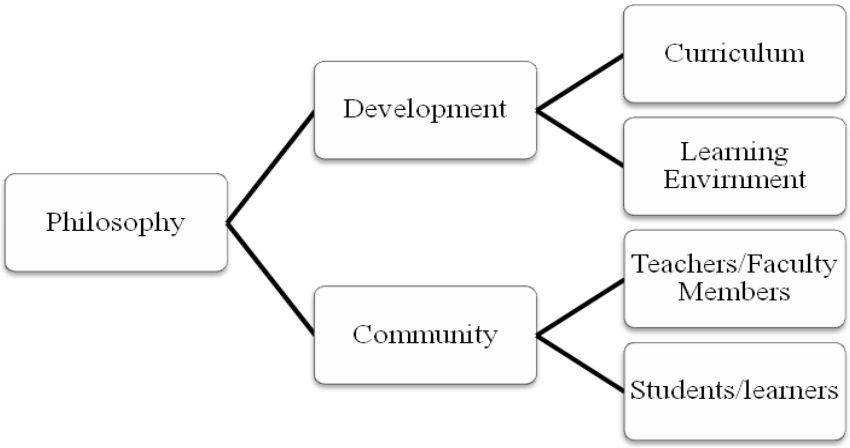

Figure 1: Four Pillars of Philosophy of Higher Education

These four pillars are also important in philosophy of education. Philosophy of education can refer either to the application of philosophy to the problem of education, examining the definition, goals and meaning of education, or to any particular vision of or approach to education. As an academic field, philosophy of education is "the philosophical study of

education and its problems...its central subject matter is education, and its methods are those of philosophy."One can learn a lot about an institution's or individual's philosophy of education based on the which of the four elements is either given priority or is the sole focus of the program. It's been observed that many traditional institutions put the biggest emphasis on the quality of the curriculum, protecting that content as if it were their exclusive domain. Thus the belief is essentially that the educational process is data transferal from one generation to the next. In this model getting an education is having access to this curriculum and the business model is that one must pay tuition to have access to this curriculum.

Activity: Interview at least two educationists from your area and explore their views about philosophy of education.

2.1.1 Importance of Philosophy of Education

Now, let us study how significant educational philosophy is in academic life. Philosophy of education is very important as all educational theories arise from philosophy. If we are able to examine the philosophy of education, we can easily see how different theories oppose or complement each other. Therefore, an understanding of educational philosophy is helpful in directing and presenting a critique on development of educational theories. Philosophy is also important for promotion of professional and philosophical activities. Several educational ideas are drawn from other disciplines, and a philosophy of education can deliver a didactic history of thoughts, models and terminology. It supports to place the educational discipline on a comparable philosophical balance to other disciplines through the establishment of a different discourse and justification.

2.1.2 Philosophy of Higher Education in Pakistani Context

We have to look the philosophy of Higher education from Pakistani context. As we know that the quick growth of digital revolution has given rise to the demand of highly educated personnel. Globalization, internationalization, and the concepts of life-long learning has added new and shared views about higher education at national and international levels. In the pursuit of excellence, the institutes of higher education, especially universities, have to play a very significant role in the world education map. To meet the challenges of t emerging trends, our institutions have to produce the manpower enable to compete worldwide. The education Policy of 1998 also looks forward to the importance of higher education in Pakistan. The policy stresses on philosophy of higher education as source of great potential for socio-economic and cultural development of the country. The important factors in the policy regarding higher education are: accessibility of computer-based education, international mobility of students and teachers and pursuits of scholarships and results.

For Further reading:

Philosophy and the aims of higher education	By John White 2006, published in Studies in Higher Education 22(1) page 7-17

Activity: Elaborate philosophy of higher education with reference to importance given to its pillars. What do you think is most important in higher education?

2.2 Need of the University

Before discussing the need of the university, it is important to understand what university is. A University is a place where students come from every quarter for all kinds of knowledge. It is a place for the communication and circulation of thought by means of individual interaction. It is the place to which various schools make contributions; in which the intellect may securely range and speculate. It is a place where inquiry is pushed forward, discoveries are verified and perfected, and errors are exposed, by the collision of mind with mind, and knowledge with knowledge. Mutual education, in a large sense of the word, is one of the great and continuous occupations of human society. One generation forms another.

University education is more than the next level in the learning process; it is a critical component of human development worldwide. It provides not only the high-level skills necessary for every labor market but also the training essential for teachers, doctors, nurses, civil servants, engineers, humanists, entrepreneurs, scientists, social scientists, and a myriad of other personnel. It is these trained individuals who develop the capacity and analytical skills that drive local economies, support civil society, teach children, lead effective governments, and make important decisions which affect entire societies.

The universities are schools of **education**, and schools of **research**. But the main reason for their existence is not to be found either in the mere knowledge conveyed to the students or in the mere opportunities for research afforded to the members of the faculty. Both these functions could be performed at a cheaper rate, apart from these very expensive institutions. Books are cheap, and the system of apprenticeship is well understood. So far as the mere imparting of information is concerned, no university has had any justification for existence since the popularization of printing in the fifteenth century. Yet the chief impetus to the foundation of universities came after that date, and in more recent times has even increased.

Now let us see why we need university education. The justification for a university is that it preserves the connection between knowledge and the zest of life, by uniting the young and the old in the imaginative consideration of learning. The university imparts information, but it imparts it imaginatively. At least, this is the function which it should perform for society. A university which fails in this respect has no reason for existence. This atmosphere of excitement, arising from imaginative consideration, transforms knowledge. A fact is no longer a bare fact: it is invested with all its possibilities. It is no longer a burden on the memory: it is energizing as the poet of our dreams, and as the architect of our purposes. Imagination is not to be divorced from the facts: it is a way of illuminating the facts. It works by eliciting the general principles which apply to the facts, as they exist, and then by an intellectual survey of alternative possibilities which are

consistent with those principles. It enables men to construct an intellectual vision of a new world, and it preserves the zest of life by the suggestion of satisfying purposes.

Youth is imaginative, and if the imagination be strengthened by discipline this energy of imagination can in great measure be preserved through life. The tragedy of the world is that those who are imaginative have but slight experience, and those who are experienced have feeble imaginations. Fools act on imagination without knowledge; pedants act on knowledge without imagination. The task of a university is to weld together **imagination** and **experience.**

The universities have trained the intellectual pioneers of our civilization - the priests, the lawyers, the statesmen, the doctors, the men of science, and the men of letters. They have been the home of those ideals which lead men to confront the confusion of their present times. In early mediaeval history the origin of universities was obscure and almost unnoticed. They were a gradual and natural growth. But their existence is the reason for the sustained, rapid progressiveness of life in so many fields of activity. By their agency the adventure of action met the adventure of thought. It would not have been possible antecedently to have divined that such organizations would have been successful. Even now, amid the imperfections of all things human, it is sometimes difficult to understand how they succeed in their work. Of course there is much failure in the work of universities. But, if we take a broad view of history, their success has been remarkable and almost uniform. The cultural histories of Italy, of France, of Germany, of Holland, of Scotland, of England, of the United States, bear witness to the influence of universities.

2.2.1 Importance of University Education

The need of University education can be best assessed through its importance. University education is important for any society as it affects the individual in various ways as under:

1. Effects on Economic Field

An educated populace is vital in today's world, with the convergent impacts of globalization, the increasing importance of knowledge as a main driver of growth, and the information and communication revolution. Knowledge accumulation and application have become major factors in economic development and are increasingly at the core of a country's competitive advantage in the global economy. The combination of increased computing power, diminishing prices of hardware and software, improvement of wireless and satellite technologies, and reduced telecommunication costs has all but removed the space and time barriers to information access and exchange.

The recent World Bank study "Globalization, Growth, and Poverty: Building an Inclusive World Economy", by David Dollar and Paul Collier, describes how 24 developing countries that integrated themselves more closely into the global economy experienced higher economic growth, a reduced incidence of poverty, a rise in the average wage, an increased share of trade in gross domestic product, and improved health outcomes. These countries simultaneously raised their rates of participation in higher education. Indeed,

the countries that benefited most from integration with the world economy achieved the most marked increases in educational levels. In addition, there is growing evidence that university education, through its role in empowering domestic constituencies, building institutions, and nurturing favorable regulatory frameworks and governance structures, is vital to a country's efforts to increase social capital and to promote social cohesion, which is proving to be an important determinant of economic growth and development.

2. Effects on Quality of Life

As we know that higher education improves an individual's quality of life. Studies show that, compared to high school graduates, college graduates have longer life spans, better access to health care, better dietary and health practices, greater economic stability and security, more prestigious employment and greater job satisfaction, less dependency on government assistance, greater knowledge of government, greater community service and leadership, more volunteer work, more self-confidence, and less criminal activity and incarceration. In addition, college graduates supposedly have greater use of seatbelts, more continuing education, greater Internet access, greater attendance at live performances, greater participation in leisure and artistic activities, more book purchases, and higher voting rates. Higher education, theoretically, also enable individuals to expand their knowledge and skills, express their thoughts clearly in speech and in writing, grasp abstract concepts and theories, and increase their understanding of the world and their community.

2.2.2 Contribution of Universities in Different Areas

After studying its importance, it is also relevant to see its contribution. University Education plays vital role in different aspects of life. Some of them are as under:

1. Education

There is, in university education, a concern not only with what is learned, but also with how it is learned. Too much pedagogy is concerned solely with the transfer of information. Generation by generation universities serve to make students think. They do so by feeding and training their instinct to understand and seek meaning. It is a process whereby young people, and those of more mature years who increasingly join them as students, are taught to question interpretations that are given to them, to reduce the chaos of information to the order of an analytical argument. They are taught to seek out what is relevant to the resolution of a problem; they learn progressively to identify problems for themselves and to resolve them by rational argument supported by evidence; and they learn not to be dismayed by complexity but to be capable and daring in unraveling it. They learn to seek the true meaning of things:to distinguish between the true and the merely seemingly true, to verify for themselves what is stable in that very unstable compound that often passes for knowledge.

2. Research

Successful research, whether in the sciences, humanities or social sciences, depends upon a culture and individual attitudes that value curiosity, skepticism, serendipity, creativity and genius. They are values that are crucial to the university

educational process at its most profound, and are most readily acquired in an environment of free-ranging speculation and research that is infused by them. Their transfer into society by graduates who embody them is an essential contribution to an innovative culture and a spirit of informed civic responsibility.

3. **Innovation**

The role of universities as engines of innovation and economic development cannot be denied. The crucial question is whether and to what extent this is true and appropriate. Undoubtedly, universities have a fundamental contribution to make to the innovation process, but it is important to understand what that contribution is, and not to assume, as many increasingly do, that universities are direct drivers of innovation, and that this could be their primary rationale. Universities can and do contribute to the innovation process, but not as its drivers. Innovation is dominantly a process of business engagement with markets, in which universities can only play a minor active role. They do however contribute to the fertility of the environment that innovation needs if it is to flourish.

4. **Public Engagement**

Academics have long contributed freely their specialist knowledge or distinctive perspectives to public bodies, and to a broader public through lectures, debate, discussion or performance, and as "public intellectuals", who take on a public role to stimulate debate or social activism. Much of this engagement is negotiated with and by individual academics and their students, often without the formal consent or even knowledge of their universities. It is part of the "halo" effect of a university, and depends entirely on the presumption that autonomous academics have the freedom, and the duty, to promote learning and understanding.

5. **International Engagements**

Academic scholars have maintained networks of international links since the early days of universities, long before the phenomenon of globalization ushered in by the recent communications revolution. That revolution has destroyed geographical barriers to communication and interaction, such that we now live in a novel world of virtual proximity, global perception and awareness. The opportunity for universities to play an independent, mediating role in this changing world is clear. Internationally, they are located in different cultural milieus, but they share a common ethos that permits them to collaborate across cultural divides and to deepen in their students a sympathy for and understanding of the diversity of cultural assumptions and the complexities of the modern world.

2.2.3 Role of Universities in Socio-Economic Development in Pakistan

You all must be aware of the fact that is generally observed that education is the most powerful weapon in lessening poverty, uplifting economic growth, producing skilled human resource, creating a healthy and enlightened social environment and creating self-sufficient nations. Education and poverty are paradoxically related to each other: if the former is increased, the later decreases.

In a socially, economically, religiously and culturally diverse state like Pakistan, higher education institutions and universities, imparting education and conducting cutting-edge

research are the central mechanisms that can raise the declining social and economic infrastructure of the country. Since the 2000s, there has been rapid growth in these institutions and universities across Pakistan, as is evident from the sharp rise in their numbers from just 32 in 2001 to 160 in 2014.

Pakistan, despite this rapid growth in the education sector during the past decade, suffers from severe challenges in its educational development. These challenges include lack of access to higher education for the majority of the country's youth, results-oriented standards of pedagogical techniques, brain drain of qualified human resource, and lack of adaptability to changing paradigms of academic research. Out of a population of 190 million, only 5% have access to university level education. It is worth mentioning that, by the end of 2022, Pakistan needs 36 million new jobs if the economy is to grow by 6% annually. Therefore, it is the premier duty of all national universities to produce graduates who fulfill the criteria of the national, social and economic needs of the country. In this regard, the role of career counseling and placement offices at the university level becomes very important.

In the 21st century, the paradigm of universities has shifted from traditional aspects of teaching and learning towards building communities, economies and patterns of leadership. Education, either basic or higher, plays a key role in the development of human capital that consequently brings about the establishment of sound economies and harmonious communities. There is an immediate need to initiate radical educational reforms so that these challenges can be addressed proactively. The following is an exercise in this regard.

1. To begin with, the ministry of education, ministry of finance, planning commission, standing committees on basic and technical education, and the higher education commission of Pakistan should assist universities, both public and private, in establishing on-campus university-community partnership centers. These centers should work on the pattern of think tanks and should devise mechanisms to address dominant social problems, prepare modules and schemes for the outreach of educational facilities, and bridge linkages with communities for the sharing of knowledge.
2. Secondly, Pakistan is a traditional society with different demographical characteristics. More than 30% of the population lives below the poverty line, and more than 600,000 young graduates are met with unemployment every year. Higher learning institutions and universities should therefore develop terms of reference (ToRs) to provide financial assistance to talented individuals who otherwise could not afford higher education.
3. Thirdly, to streamline and ensure effective utilization of public funds allocated for the development of higher education in Pakistan by the concerned commissions and universities, the relevant ministries and planning commissions should primarily focus on building grass-root level education in primary schools.
4. Fourthly, universities should focus on creating an entrepreneurial culture among their graduates. Their aim should be to produce job creators, rather than job

seekers. This can be attained through the establishment of effective business incubation centers, encouraging partnerships between industry and academia and placing career counseling offices that should work on intellectual and professional development of the graduates during the course of their studies in order to prepare them today for the challenges of tomorrow.

5. Fifthly, education needs to be seen as an investment for the future. The government should prioritize spending on education and research that later on will address the social, political, environmental and economic problems of Pakistan. Universities can play a vital role in this regard through fostering reciprocal partnerships with other educational organizations and community development centers to identify real life challenges. Ideally, community development participation should be made mandatory for teachers and students at the university level. Moreover, since Pakistan has always been a victim of natural calamities such as floods and earthquakes, incorporating various emergency training programs and courses related to disaster management in the curriculum would be highly beneficial.
6. Last but not least, the role of university managers and leaders is crucial in steering our universities in the right direction. The Higher Education Commission of Pakistan (HECP) can, for example, initiates university leadership and administration programs for capacity building of university administrators in collaboration with top ranking educational schools around the world.

The development of societies and economies is interlinked with the growth of education. It is the order of the day that the quality of education at every stage should be improved to help lay a solid foundation for the advancement of studies in basic sciences, engineering disciplines, agriculture extension, medical and other important areas that are needed for the economic growth and reconstruction of Pakistan. Without quality education that critically prepares a young mind to face and provide solutions to varied types of problems, Pakistan or any other developing state will only suffer socio-economically, politically and strategically.

For Further reading:

Pakistani Universities: Actual, Ideal, Possible	ByRehman, T, published in 1989

Self Assessment Questions

1. Why University education is important in Pakistan?
2. How can University Education be made more beneficial for socio-economic development of the society? Discuss in detail.
3. In what areas university education contributes to society? Explain.

2.3 Modes of the University

Uptill now we have been studying the need and importance of university education. Now we will discuss in detail what the modes of university education are, how the students select them and what are the factors that influence their selection of appropriate mode.
As you all know that universities have been pressured and encouraged to explore new avenues for additional income and to view students as more consumer-like in their choice of a course and university. A heightened competition for prospective students has required institutions to adopt more flexible modes of delivering education to meet student demands.

The modes of university education are as listed below:
1. Face-to face
2. Distance
3. Online

Open access and distance learning have become a critical long term strategy of many universities to encourage higher education participation. Online learning also increases the accessibility of education due to its capacity to overcome the spatial and temporal limitations of traditional teaching settings. Pedagogically, blended models of learning combining face-to face and online experiences (e.g., lectures and tutorials supported by podcasts, online discussion, materials, and activities) can lead to teaching methods and resources that support both on campus and distance delivery.

Managing the integration of online and face-to-face delivery and understanding student's motivations and experiences of learning online will be increasingly important as online delivery continues to evolve and expand into open access, on-campus and distance modes of study. It is in the interests of institutions offering different educational pathways through two or more modes of study to understand the reasons why students choose particular study modes at the outset and at different points throughout their degree.

2.3.1 Factors Influencing the Selection of Mode

Now let us discuss the factors that influence the students while selecting the suitable mode for university education. It is observed that the decision-making processes of students at the entry point to higher education have been the focus of several research projects. Studies conducted since the early 1990s have examined intrinsic motivations such as interest in an area of knowledge and related career opportunities as well as the more general reasons for attending a particular university: for example, reputation, campus environment, academic programs and services. The study mode remains the most important attribute informing school-leavers' initial choice of enrolment (with a slight preference for face-to-face teaching), followed by tuition fees and to a slightly lesser degree university reputation.

The personal and social factors influence student preferences. The rural and remote locations as well as low socio-economic background impact on students' choice when

considering a higher education pathway. These pathways have expanded and become increasingly flexible, with the availability of web-based systems in the tertiary sector allowing for the delivery of education material that supports multiple modes of enrolment meeting the needs of an increasingly diverse student population. They provide students with the flexibility to choose between studying on-campus and/or at distance to suit their family and lifestyle priorities and learning preferences. Blended learning environments, a combination of face-to-face and online experiences, have blurred the distinction between delivery modes as both on and off campus students can access the same unit information and have similar learning experiences.

There are a range of characteristics that have traditionally been associated with students studying in different modes. The majority of students enrolled in distance education programs is usually adult learners who are enrolled in arts and social science courses, and many are in full-time employment. Typically gender enrolment trends reflect a significantly higher proportion of women than men choosing online courses as an educational pathway to obtain a degree. The impact of full-time employment and family commitments on full-time students' success during their first year at university is also an important factor in selection of mode. There is need to develop a validated measure for differences in the motivation to enrol in a specific enrolment mode. Further to this, where universities provide the flexibility for students to move between enrolment modes as they progress through their degree this raises the question of whether students maintain the same mode throughout their degree and if there is movement between modes, what are the factors influencing their decision.

So the factors that influence the selection of mode can be:

- Employment
- Gender differences
- Flexibility of choice
- Time constraints
- Personal context

2.3.2 Importance of Open Learning Mode

Being a student of open Learning mode, you must also be aware of its importance. Open learning is a term that includes a number of alternative educational systems. It is variously known as:

- Distance Learning (This is often replaced by open learning).
- Correspondence Study (used specially in Australia).
- Home or Independent Study (An American Term).
- Non-Traditional Studies (Outreach Programs, Off-Campus).

All these titles refer to the particular method of teaching. Each system, however, operates according to the context within which it exists, there are features common to all of them. There has been considerable debate among distance educators regarding a precise

definition of open learning. Some key elements identified in the all above listed terms are the same and listed as ahead:

1. **Separation of Teacher and Student**
   This is fundamental to all forms of open learning, regardless of the medium of instruction used- print, telephone, broadcast, computer or internet. This distinguishes it from traditional education which is based on face to face lecturing and interaction in a central location. Distance learning overcomes geographical distances to reach students who could otherwise be deprived of education. This, however, is not enough to distinguish open learning from basically individual study which can be taken by the learner outside formal structures.
2. **Selection and Preparation of Learning Material**
   This is the key factor that further specifies an element in open learning, which more structured than merely watching the occasional educational broadcast or reading interesting books as in individual or private study. The institution-student relationship differentiated distance learning from traditional learning where the student's main educational relationship is with tutors. In open learning, the student uses materials and works within the framework designed by the institution. Moreover, the personal tutor who has the responsibility for the student's progress may not even have been involved in the design of the course materials.
3. **Participation in an Industrialized Form of Education**
   This refers to the use of the division of labour throughout the process of course design. As stated above, the tutor may not have contributed to the design of that material for the course. Distance education is based on the division of labour: in the mass production of educational materials; in the centralization of resources; in the organizational principles upon which systems of distance learning are based; in the increasing use of technology in course design; in automation of the feedback process; and in the specialist teams employed to design particular parts of the course.
   There are educators and academics who write the material; instructional designers who develop effective packages through which the materials can be disseminated: tutors who are responsible for students' progress; technicians in all areas to develop the system of transmission; and an array of organizers, administrators and support staff who keep the institution operational.
   Whereas this is vastly different from the one to one relationship of teacher student in traditional learning, it should not be taken to imply that the distance learner is lost in a mass of industrialized education.
4. **Two-Way Communication**
   The use of communication technology which provides a two-way link between learner and teacher is another key element in distance education. Whatever medium is employed – telephone, correspondence, satellite – there is always a possibility of communication. This is vital for the student not to feel isolated and experience a resulting lack of motivation. Isolation is major problem for the distance learner, and the quality of interaction is important. An effective two way channel of

communication is also important in terms of the time taken to receive, assess and return the student's work.

5. Use of Technical Media

Another area which is significant in open learning and which has received a great deal of attention in the recent years is the variety of media utilized in teaching courses. The use of educational technology marks a shift away from traditional education, where technology may only be an additional part of the face to face learning process. In open learning, the nature of the whole course may be defined by the media used; it is not additional to, but the basis of many courses. Computers, Internet, satellite communications, telephone contact and online broadcasting have an effect on the nature of educational process itself. In a traditional university, ICT is used to teach computer courses only. In open learning system, they can be effectively used to teach the whole range of courses form sciences to humanities. They can even be used to improve the marking system and provide a two way contact between student and teacher.

6. Teaching Students as Individuals

The main characteristic of open learning is the separation of teacher and a learner. This means that the students are taught as individuals but at a distance, not in face to face situation. However, the coming together of students and teachers is by no means an unknown phenomenon. The Open University of UK has a series of summer schools. Many open learning institutions bring students together for particular didactic and socialization purposes. The purpose of video conferencing is to link students using satellite networks means the possibility of group work at a distance is slowly becoming a reality.

Thus the open learning system, despite individual differences does have common theme throughout the relationship of the student to the institution, the nature of the institution itself, the process of the course production and the use of technical media in teaching are the particular features of distance learning.

As the main focus of open learning is student, it is appropriate to look at the nature of the student group. The concept of 'openness' in distance learning is concept related to the student's flexibility within the course and opportunities for enrolment. It is seen that adults seeking higher education do so for three main reasons:

1. Personal development
2. Professional and vocational training and specialization
3. Acquisition of specific academic qualification.

All the students will not choose to study by distance methods, but those who do so because of variety of different factors related to:

- Openness,
- Access, and
- availability

Many distance learners come to higher education with serious apprehensions about their ability to cope with the degree level course, or indeed, with any academic work at all. On the whole, they will be mature in age and gainfully employed as opposed to students at conventional universities which tend to be 18-21 years old and study full time. Although there are differences within individual countries, the majority of students are working, and there are more tasks for this purpose, continuous assessment by the institution, and final oral examination s in most disciplines. A thesis is also required for research degrees.

To sum up, we can say that open learning teaching is a network of coordinated educational bodies where teaching materials are industrialized and regular or face to face teaching methods are included occasionally.

For Further reading:

An Introduction to Open learning System of Higher Education	ByAman, J, published in 1986

Self Assessment Questions

1. Reflect upon the need to select technological mode for higher education in the changing world.
2. Discuss the importance of Open learning system in Pakistan.

2.4 Functions of the University

After discussing the need, importance and mode of university, the role and function of the university needs to be thrown light upon. The role of university education can be assessed through the functions the system performs.

2.4.1 Function of University; A typology

If possible, this tentative typology would support you to set the phase as it is also helpful for researchers and policymakers to reflect the usefulness of the functions for the university education in several parts of the world.

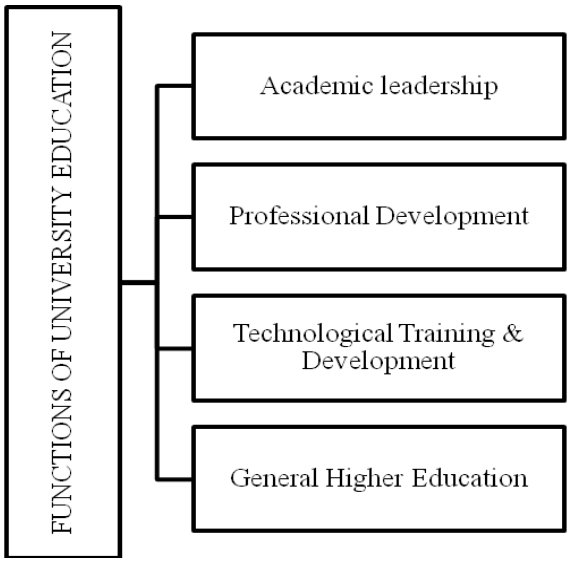

Figure 2: Typology of Functions of University Education

1. Academic Leadership

Academic leadership is usually the most significant function within university. But it also occurs quite seldom, even in the developed countries, if the situation is defined by what is completed rather than what is demanded. The function involves what scholars usually identify with quality, highly prepared faculty; sophisticated original research published in severely reviewed, internationally recognized outlets; graduate education; and selective undergraduate education. Fulfillment of this function requires plenty of resources. Research, graduate education, and overall academic quality are costly in both human and physical resources.

Academic leadership also usually requires considerable autonomy. In an age in which demands for accountability run rampant, it may seem old-fashioned to defend the idea that some university education needs to be loaded with resources and left free from most forms of responsiveness to government or the marketplace. Intellectual activity requires protection. This is not to argue against all controls. It is to emphasize that most appropriate controls are either internal, based on dynamic peer review, or operate in a broad international sphere. But the need is to identify true academic leadership from among the many claimants. Otherwise, precious resources are degenerated, and autonomy becomes an unjustified defence against needed accountability. Too many international higher education policy papers for the developing world offer general system instructions that commit a matching error: true academic leadership is deprived of the chance to survive and grow because its needs are not met, while the great bulk of university education is treated incorrectly as if it followed, or should follow, to the academic leadership function.

2. Professional Development

This function refers mostly to the preparation of students for particular job markets requiring advanced formal education. The classic professions like law are joined today by fields like computer science. In many fields, relevant research, often applied, exists alongside training. Like the academic leadership function, the professional development function is less common than claimed, and it is too often the proclaimed model for parts of university education that are not well suited to it. In many countries, students enter professional faculties with specific curricula. However, many graduates do not wind up finding jobs that match directly to their studies. This often leads to charges of underemployment and of failure. Professional university education should not greatly copy the standards and policies devised with academic leadership in mind. For example, rather than assuming that full-time professors are better, consideration must be given to blending full-timers with competent professionals who teach individual courses. Similarly, the marketplace is often a better guide to policy and judge of performance than are academically idealized peer review or accreditation systems.

3. Technological Training and Development

The technological function is newer, either previously missing or found more commonly at a lower educational level or in on-the-job training. In addition to some applied research, this function is mostly about training, often short term, for direct addition into the job market. Here the utmost need is for strong ties to the job market in matters like curriculum development, choice of professors, and evaluation of outcomes. Rapid responsiveness is important and should not be hindered by authority. It is also important that technical education not be simply of poor-quality professional education. In general, this form of university education needs to be rendered greater respect and serve as one of the main types of growing form of university education.

4. General Higher Education

The other major function of university education is general higher education. This is often the least recognized function. It is usually set up as professional education, but students wind up working in jobs other than those directly in the studied subject matter. Thus, the education is "quasi-professional" and appears to be a failure. It also looks like failure where it lays claim to academic leadership.

Yet general higher education by design instead of by default needs to be followed and appreciated. It is probably the form through which most students in large higher education systems can develop analytical skills in reading, writing, and thinking that will be useful in a variety of possible jobs and in broader roles for citizens. Where employment does not correspond to rigid plans of study, curriculum and pedagogy should be redesigned. It is for general higher education that accreditation systems may be most suitable. General higher education offers possibilities for distance education and other alternatives to traditional higher education.

2.4.2 Recommendations to Enhance Functionality of University Education

University education can function in a better way if:

1. **Universities are unique kinds of global institutions**.
   Universities are institutions intended to be durable and enduring. When wisely designed, governed and financed, they are unique entities in our global society. Universities are neutral conveners, assemblers of talent, and unmatched idea factories where the passion, creativity, and idealism of great minds, young and old alike, can be applied to problem-solving and advancing our societal and economic well-being.
2. **Universities must adapt and innovate**.
   Contemporary universities have a responsibility to transcend traditional disciplinary limitations in pursuit of intellectual fusion, and develop a culture of academic enterprise and knowledge entrepreneurship. They must also be prepared to begin delivering higher education at scale – in a manner that bestows status upon universities based upon the outcomes they achieve and their breadth of impact rather than the exclusivity and quality of their incoming freshman class.
3. **Universities must embrace their cultural, socioeconomic and physical setting**.
   It is imperative that universities be socially embedded, thereby fostering development through direct engagement. Universities must work creatively and be willing to take risks to become even greater forces of societal transformation
4. **Universities must focus on the individual**.
   Universities need to foster student success by becoming student-centric – rather than faculty-centric. Successful universities will be those capable of being nimble, anticipatory, imaginative and reactive. They must provide unique environments that prepare students to be "master thinkers" able to grasp a wide array of skills and comprise the most adaptable workforce the world has ever known.
5. **Universities must become effective partners for global development**.
   Only through the proliferation of networks between like-minded alliances can transformation occur at the scale that is immediately needed in order to advance the present global knowledge economy. The communities must open their eyes to this imminent future and transform their thinking to see universities, not as self-indulgent "people factories," but as valuable idea generators with vast influence and the potential to manifest technologies and concepts that can change lives the world over.

As you all know that change is not easy. Modification and growth in large, complex institutions that are part of an increasingly global system of commerce, trade and interchange can be particularly challenging. But innovation and adaptation are needed now more than ever before in the international higher education infrastructure and in the global development institutions.

For Further reading:

The Goal of University	By Michael, A, published in 1988

Self Assessment Questions

1. Enlist the functions of the University Education.
2. Give recommendations on how to make University Education to be more effective?

Conclusion

In this unit, we tried to discuss a very important aspect of education that is higher education with reference to university education. University education is very important for development of any country from social, academic and economic point of view. Different countries present different modes of university education programs. They can be face to face or distance or open programs, many factors influence students in selection of mode. The functions of university education are not only to serve students in academic field by enriching their knowledge and developing their research skills but also in socio-economic life by developing them professionally and engaging them nationally and internationally. So the need is to develop university education system for the development of a country.

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Unit–3

GROWTH AND DEVELOPMENT OF HIGHER EDUCATION

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Introduction

Pakistan, like other developing countries, is gripped into serious socio-economic troubles of poverty, unemployment, inflation, and poor health conditions. Education is believed to be the most effective tool that overcome such problems, leaving a cross cutting effect on all aspects of human life. It is one of the major determinants of economic growth in endogenous growth theories. Keeping in view the significance of education, the developing countries are giving much weightage to the formulation of educational policies and are linking their education sector to the market demand. "Access to higher education has increasingly become a major priority for state and federal policy-makers" (Jackson & George, 1975).

This unit consists of three parts. Part one is indented to provide a brief description of important recommendations of different policies and plans. Part two throws light on the role of different government and non government organizations for the promotion of higher education in Pakistan. Part three describes the role and achievement of higher education commission for the growth of higher education in Pakistan.

Objectives

It is expected that after studying this unit, the learners will be able to:

1. compare different educational policies and plans with respect to higher education.
2. understand the role of different organizations for the development of higher education in Pakistan.
3. understand the role of HEC and its running programs for the development and growth of higher education in the country.

3.1 Higher Education: Genesis and development (Policies & Plans)

At the time of establishment of Pakistan on 14 August 1947, the country had only one institution of higher learning, the Punjab University and among forty colleges expanded to four provinces of Pakistan. Education policy revised by Prime Minister Liaqat Ali Khan, the government established various universities and colleges in all over the country. This led the establishment of University Grants Commission (UGC) by the constitution in Pakistan in 1947. The same year, Mohammad Ali Jinnah held a National Education Conference (also known as Pakistan Education Conference) of academicians and state holders to revise the policy of higher education in the country, as he stated:

"... the importance of education and the type of education cannot be over-emphasized ... there is no doubt that the future of our State will and must greatly depend upon the type of education we give to our children, and the way in which we bring them up as future citizens of Pakistan ... we should not forget that we have to compete with the world which is moving very fast in this direction."
Many recommendations were directed and accepted by the government to establish the UGC as a federal regulatory institution in 1947. Efforts led by government led to the imposition of Soviet-oriented first five-year plans which explained the first official education policy in 1956. The first plan was an attempt to make education development suitable for the socio-economic development in the country.

In 1959, the government recognized the need to expanding powers granted to the UGC and appointed the UGC as federal commission.[7] In 1960s, the financial policies and economic programmes introduced by government greatly emphasized to importance of higher education in the country.[9] A huge revenue and a huge percentile of budget was actually spent to promote higher education efforts in the country. Rs. 912 million was spent annually for the fiscal period of 1960–65 in a joint collaboration led by ministry of finance, ministry of education, UGC and Planning Commission. Colleges were transformed into full-scale research universities and special research institutes were established in all over the country. According to the calculations performed by the Ministry of Statistics, around 430,000 students were enrolled in different universities to pursue their higher education over the fiscal period of 1960–65.[9] From 1965 to 1971, the government spent Rs. 173.8 million on the education sector as opposed to actual allocations of Rs. 278.6 million.

After the 1971 war with India which saw the separation of East-Pakistan as Bangladesh, the new education policy was announced with the implementation of nationalization programme in 1972. Under this policy, all two-year colleges were transformed to university status under the state-controlled policy; privatized universities were nationalized. During this time, government had spent 70% of natural resources on higher education efforts; enrollment in the universities increased to 56%.Government period saw the sought to integrated social change; thus economic progress through nationalization.

In 1979, government announced "The National Education Policy, 1979" (NEP-79) which saw the harmonization of higher education in Pakistan with Islamic concepts and the national ideology. Government policies led to the fundamentalist ideas flaring in the higher education system in the country.[9] In 1992, government announced a "National Education Policy 1992" (NEP-92) to streamline the process of higher education. This was followed by the Eighth Plan launched by government in 1993 which focused on primary education.

The different higher education policies, priorities, and the need of competition between the political forces in Pakistan led to disturbances in the higher education as well as effecting the UGC ability. The inadequate financial funding and policy implementation never matched the need of higher education in the country. In 2002, the government took over the initiatives in devolving the UGC into Higher Education Commission in 2002.

2009 policy states that Government shall develop and enforce minimum quality standards for organizations involved in literacy in the form of literacy certification and accreditation regime. The literacy providers shall be required to offer the literacy programmes according to the specified standards

2017-2025 policy highlights that Total enrollment in higher education institutions in Pakistan has increased from 0.276 million during 2001-02 to 1.298 million by 2014-15, registering 300% surge over a period of about 15 years. However, still Pakistan's Gross Enrolment Ratio (GER) in higher education was just 10% during 2015-16, which is lower than many other developing countries of South Asia. For example, GER of India in higher education is 24%, followed by 21% in Sri Lanka, 16% in Nepal and 13% in Bangladesh (UNESCO, GEM Report 2016). An encouraging development is that Gender Parity or enrolment of females in higher education has increased from 36.8% in 2001 to 47.2% by 2014. Universities get about 40% of their budget through Fees from the students and other sources of income. This has made access to higher education less equitable. Public sector universities are insufficient in number to meet learning needs of all the students from low income families. Since most of the parents are unable to pay exorbitant fees of private sector universities, resultantly participation rate at higher education level remains low

Policy suggests that Number of public sector universities will be increased from existing 99 (2015) to 195 by establishing 96 new universities by 2025. Projected number of private universities is expected to reach from existing 76 to 105 by 2025 with total number of universities touching the figure of 300 in the country. HEC will set up 72 new smart sub-campuses of Tier II universities in under -served large districts. vii. Existing (2015) enrollment of 1.298 million (in public, private, distance universities and in affiliated colleges) shall be increased to 7.172 million by 2025.

3.2 Challenges of Higher Education in Pakistan

The status of higher education in Pakistan is not encouraging, although this sub-sector has registered enormous growth after 2002, when Higher Education Commission was established and Government of Pakistan started according priority to tertiary education. The important sub-sector of higher education is confronted with following broader issues and challenges:-

1. Participation rate at higher education level is low; Gross Enrolment Ratio is just 10%. Only 8% of relevant age group of 17-23 years are enrolled in tertiary education.
2. Most of the universities and their campuses are concentrated in urban centers and more developed regions of the country, hence restricting accessibility of millions of youth in rural and under developed areas to access higher education opportunities. Out of 120 districts in the country, 65 districts do not have any university or its campus.
3. Quality of higher education is not compatible with international standards. None of the Pakistani universities is included in the list of top 500 universities of the world.
4. Only 27% faculty members of universities possess higher qualification of Ph.Ds.
5. Most of the universities lack a culture of research. Ratio of internationally recognized research publications is minimal.
6. Budgetary allocations for higher education are not proportionate to the needs of the country. Provinces are spending less than 13% of their education budget on higher education.
7. HEIs are also facing issues relating to governance. Appointments of senior leadership in universities are sometimes politicized, thus affecting quality of education and research in these institutions.
8. Due attention is not paid on Research and Development (R & D). Linkages between universities and industry are weak. There is a dire need to address these issues through a well thought out policy on higher education.

Activities

1. Compare educational policies of 1972 and 2009 regarding their role in promoting higher education in Pakistan?
2. Discuss the educational policy 2009 with special reference to:
   i. National merit program
   ii. Counseling facilities at secondary and higher secondary schools.
   iii. Adult literacy and non-formal education programs
3. What are the challenges to higher education in Pakistan? Discuss in detail?

3.3 Role of Various Organizations in Higher Education

In 2003, Canada began helping Pakistan develop an accreditation system. As stated in "Ordinance No. LIII of 2002, Para 10, Clause e", the Higher Education Commission of Pakistan may set up national or regional evaluation councils or authorize any existing

council or similar body to carry out accreditation of institutions including their departments, facilities and disciplines by giving them appropriate ratings. In Pakistan following organizations are involved in higher education.

- Higher Education Commission(HEC)
- Ministry of Federal Education and Professional Training, Pakistan
- Pakistan Engineering Council(PEC)
- National Agricultural Education Accreditation Council (NAEAC)
- National Business Education Accreditation Council (NBEAC)
- National Computing Education Accreditation Council (NCEAC)
- Offices of Research Innovation and Commercialization (ORIC)

3.3.1 Higher Education Commission

The Higher Education Commission (HEC) is the primary regulator of higher education in Pakistan. It also facilitates the development of higher education system in Pakistan. Its main purpose is to upgrade the Universities of Pakistan to be centers of education, research and development.

3.2.2 Ministry of Federal Education and Professional Training

Government ministry that is responsible for determining the policies and direction of the education system in Pakistan.

3.3.3 Pakistan Engineering Council

Pakistan Engineering Council (PEC) is a statutory professional body constituted under the Act of Parliament in 1976. Since then it is functioning to encourage and promote pursuits of excellence in engineering profession and to regulate the quality of engineering education and practice of engineering & technology. The Council is striving to set and maintain realistic and internationally relevant standards of professional competence and ethics for engineers to achieve rapid and sustainable socio-economic growth in the country.

3.3.4 National Agriculture Education Accreditation Council

In recent years, the Higher Education Commission (HEC), Government of Pakistan has taken several initiatives to improve both access to and quality of higher education. The establishment of the Accreditation Councils is a major step towards improving the quality and bringing it at par with the international standards. Accreditation is both about quality assurance and quality improvement. Accreditation process determines the minimum acceptable educational standard. The Higher Education Commission established the National Agriculture Education Accreditation Council (NAEAC) in 2007 having representation of experts from agricultural universities and research institutions, leading industries and R&D institutions in public and private sectors. NCEAC is a recognized accreditator of universities and their programs in Pakistan. It ensures the quality of education students receive in Universities and Institutions. It provides world leader ship in assuring quality and in stimulating innovation in applied sciences, computing,

engineering and technology education. **NCEAC** serves the public through the promotion and advancement of education.

3.3.4.1 Objectives of NCEAC:

- **NCEAC** will assure quality in computing degree programs in educational institutions. It would require an educational institution or program to meet certain defined standards or criteria.
- Accreditation by **NCEAC** shall be a mandatory process for all relevant academic programs offered by public and private sector institution.
- Fostering the intellectual development of students interested in pursuing computing profession.
- Ensures transparency of comparable study programs

3.3.5 National Business Education Accreditation Council (NBEAC)

National Business Education Accreditation Council (NBEAC), was established by Higher Education Commission (HEC) vide notification No. 1-2/BAC/QAA/2007, dated March, 2007.The purpose of NBEAC is to assure quality in Business Administration/Public Administration/Management Sciences/Commerce degree programs according to the proposed accreditation in educational institutions. NBEAC will function at national level as accrediting authority to facilitate and enhance the quality of business education in the country. Educational accreditation is a type of quality assurance process under which services, operations and resources of an educational institution or program are evaluated by an external body to determine if prescribed standards are met. NBEAC accreditation is for specific degree programs offered in Business Institutes/Universities. It is important to note that accreditation and certification are two different concepts. In general, institutions and programs are accredited, and individuals are certified. The NBEAC accreditation process is composed of the following stages.

- Initial Contact /Orientation
- Formal Application
- Eligibility Screening (by Secretariat)
- Guided Development
- Self-Assessment Process
- Peer Review Process
- Accreditation Decision

3.3.6 National Computing Education Accreditation Council (NCEAC)

Higher Education Commission was constituted on 11th September, 2002 by the promulgation of Ordinance F. No. 2(1)/2002.Pub and has been authorized in article 3 Sub-Section (e) to set up national or regional evaluation councils or authorize any existing council or similar body to carry out accreditation of Institutions including their departments, faculties and disciplines by giving them appropriate ratings. The Commission shall help build capacity of existing councils or bodies in order to enhance the reliability of the evaluation carried out by them. So realizing the benefits and need of

accreditation, the National Curriculum Revision Committee of Computer Science-2003, met in December 2003 and March 2004 at Higher Education Commission in Islamabad, recommended establishment of National Computing Education Accreditation Council (NCEAC) for accreditation of degrees in Computing in Pakistan.

Computing has emerged as a major academic discipline and a professional field in Pakistan in the recent past. A large number of educational institutions offer degree programs in computing related areas both in public and private sectors. It has therefore become essential that an internationally acceptable and industrially viable set of criteria maybe evolved for various degree programs in computing related degree awarding institutions. For this purpose, it is proposed that an accreditation authority be setup which would periodically evaluate, scrutinize, and monitor the standards followed in different degree awarding institutions and their affiliated colleges

3.3.7 Offices of Research Innovation and Commercialization (ORIC)

The universities of today are increasingly perceived as 'strategic actors' in the creation of knowledge economies, amidst a greater realization of a relationship between universities, industry, and government. There has been a marked shift in the role of universities from the traditional 'teaching and research' model towards that of universities being knowledge transfer champions in Pakistan.

Over the last decade a significant development took place in this regard. In 2010 the Higher Education Commission (HEC) of Pakistan provided funding to establish the Offices of Research Innovation and Commercialization (ORIC). This funding is available for all public and private universities of Pakistan, with additional financial support from the World Bank. The HEC also provides an additional 15% funding for ORICs that are involved in successful bids for research projects funded by the National Research Program for Universities (NRPU) thus providing legacy funding within each project. To date, ORICs have been established across 44 public and private universities in Pakistan, a massive expansion from the nine that were initially founded in 2010.

Research, being a forte of any large university, needs to be facilitated and managed. The role of ORICs thus becomes essential in advising and facilitating researchers. Indeed, ORICs were mandated to act as a focal point in facilitating and coordinating all research activities within a university, ranging from the dissemination of information regarding the call for research proposals, to development of research proposals and the commercialization of research products.

ORICs are mandated to:

1. Support the university's strategic research directions and policies
2. Increase and diversifying external research funding
3. Improve integration of research and education at all levels of the university
4. Improve translation of research into the public benefit
5. Strengthen university-industry relationships

6. Promote entrepreneurship, technology-transfer and commercialization activities that energize and support the local and national economy
7. Establish Business Incubation Centers for fostering growth of new companies
8. Promote and enhance cross-cutting multi-disciplinary research initiatives

Activities

1. Describe in detail the travel grant program of HEC and describe how can it be helpful in promoting quality education in Pakistan?
2. Highlight mismatches between industry and university research? Increasing collaboration between them can provide better opportunities for jobs and quality products in markets elaborate?
3. How far do you agree/disagree with the statement that HEC's programs have promoted higher education in Pakistan describe with special reference of the HEC's program of:
    i. Merit scholarship
    ii. Indigenous scholarships
    iii. Foreign scholarship
4. What is the HEC vision 2025?
5. Discuss the educational policy 2017-2025 with special reference to:
    i. Improving quality and ranking of universities
    ii. Faculty development
    iii. Promoting innovative research

3.4 Role of Higher Education Commission

The Universities in Pakistan are the major sources of higher education and its growth showed remarkable expansion in the recent past. Realizing the crucial role of higher education in quality research for sustained education and economic development, the government of Pakistan dissolved the University Grants Commission (UGC) and established Higher Education Commission (HEC) in 2002 with the aim to strengthen higher education with special focus on research in applied fields of science and technology within the country.

3.4.1 Higher Education Commission: Background

In 1974 the University Grant Commission (UGC) was established to improve the quality of higher education and develop a central policy for all higher education institutes. Moreover, the commission was also responsible for assessing the financial requirements of the universities and providing them funds for development. However, the commission could only relay funds from the Government. In most cases the funds provided to universities were less than their demands/needs (Jahangir, 2008:41-42).

In the year 2000 The Task Force on Higher Education and Society, funded by the World Bank and UNESCO reported on the issues, problems and opportunities for improving Higher Education in the developing countries of the world. The report was based on research conducted by experts from thirteen countries with the aim to study the

possibilities of developing Higher Education in the developing countries. Based on the findings of this report a task force was formed in Pakistan to focus on issues related to Higher Education in Pakistan.

The task force recommended that a central Higher Education body should also be responsible for ensuring the quality of the education and education institutes, not only in public sector institutes but also in the private sector. They recommended that funding be provided to the universities in accordance with their performance as is done in the U.K. by the Higher Education Funding Councils (Pakistan Task Force Report, 2002). The name of the Higher Education Commission was suggested for this central body. Conceptually, HEC works differently than its predecessor (University Grants Commission). Although HEC's main areas of concern were similar to the ones looked after by UGC, it functions differently in its operations (Higher Education Commission, 2008:23).

3.4.2 Main Functions of the Higher Education Commission

According to the Pakistan Task Force Report (2002) the main purposes and functions of HEC are to:

a. Provide support for enhancement of the quality of higher education and research.
b. Facilitate funding for higher education based on the quality of performance and needs.
c. Serve as a national resource for higher education, based on its comprehensive nation-wide information, and data on experience in other countries.
d. Participate in the formulation of Federal Government policy on matters of higher education.
e. Advise institutions, the Provincial Governments and the Federal Government on planning and development of higher education.
f. Advise the Federal and Provincial Governments on all proposals for granting a charter to award degrees, in both public and private sectors.
g. Co-ordinate the initial and subsequent periodic assessment of the quality of academic programmes in established and new institutions of higher education, in order to support accreditation and maintenance of academic standards.
h. Guide the public, the Provincial Governments and the Federal Government, on the legal status and functional value of degrees and other certification of academic achievement given by public and private institutions of higher education, and recommend appropriate action.
i. Support the cause of national integration and cohesion through co-curricular activities.
j. Perform such other functions incidental or consequential to the discharge of the aforesaid functions.

3.4.3 Important Role of Higher Education Commission

Higher Education plays a key role in a developing country's journey of development by producing skilled human resources. Due to this importance, the Higher Education Commission

(HEC) of Pakistan was established in 2002 because it was felt that the University Grants Commission (UGC) was not able to transform Higher Education to meet the challenges of the 21st century. The main role of HEC was to reform the Higher Education of Pakistan so that it can meet the economic demands of the country. Since then many reforms have been introduced by the HEC. For a deeper understanding about the types of reforms that are being implemented at the higher education level in Pakistan some examples of such reforms are discussed below:

3.4.3.1 Introduction of the Semester System

Even though both India and Pakistan claimed independence from the British rule in 1947, the semester system was introduced into Indian universities quite early in the 1960s (See: Desai, 1970, Yadav, 1976, Yelikar, 1971) while Pakistan is still in the process of implementing it. This view is similar to the report of teachers' attitudes towards the semester system found by Akhtar (1980) in a research study conducted in Indian universities. Overall, teachers were satisfied with the introduction of the semester system and claimed that it provided more flexibility to both students and teachers in managing their time. Moreover, continuous evaluation of the students' performance was also considered a positive change and helpful in achieving the learning goals. However, Akhtar's findings showed that teachers were involved in the process of planning the transition from the traditional systems towards the semester system, while according to the respondents of the current study, in Pakistan this change was introduced by HEC without involving teachers in the process of planning the reforms.

One of the changes in Pakistan's higher education after the inception of HEC was the introduction of a semester system instead of an annual system (Khattak et al., 2011:1639). The semester system is mainly different from the annual system in the assessment processes of the students. In the annual system the courses taught for a whole year were included in the assessment that was conducted at the end of the year. In a semester system, the academic year is divided into 2 or in some cases 3 semesters. Moreover, in a semester, the assessment is done through different techniques including presentations and assignments, while the annual system was mainly focused on written examination at the end of the year. This shift in the assessment techniques and introduction of assessment through written assignments increased the risk of plagiarism. Actions taken to address this issue are discussed in the next section

3.4.3.2 Anti-plagiarism policy

One other change that was introduced after the semester system was suggested by HEC was the introduction of an anti-plagiarism policy. The computer software Turnitin was made available to the University Teachers for checking the written work for plagiarism. Turnitin is used for detecting plagiarism in students' texts by providing access to billions of documents and by comparing the documents submitted into it with other documents to check for similarities in text (Trinidad and Fox, 2007:386). This allows the user to reduce the risk of plagiarism. HEC has based their guidelines for plagiarism on "The little book of Plagiarism" by Leeds Metropolitan University UK (Higher Education Commission,

n.d.-d). This document is designed to help the students understand why and how to avoid plagiarism. The plagiarism policy is also devised to help the practitioners keep a check on the work submitted by the students (Higher Education Commission, n.d.-b). According to the policy document teachers would have access to the software and they would be responsible to make sure that students are aware of the plagiarism policies and avoid it while submitting the ir written work for evaluation.

Keeping a check on students can allow them to improve their creative thinking and originality of thought and expression (Trinidad and Fox, 2007:387). Trinidad and Fox note in their study that the use of Turnitin has been appreciated by both teachers and students. However, there are some students who are reluctant to leave their work in an online database. In Pakistan the access is limited to the teachers while the students could see the reports generated by the teachers while running the submitted work through Turnitin.

3.4.3.3 Quality Enhancement Cells (QECs)

Emphasis on academic quality has increased worldwide in the last couple of decades (Dill and Beerkens, 2010:1). Since their first meeting in 1990 till their meeting in 2009, The International Network of Quality Assurance Agency in Higher Education (INQAAHE) has increased the number of their member nations from 17 to 79 (:1). In the last few years, policy makers in Pakistan have also realized the importance of improving the academic quality in higher education.

In 2005, HEC established an agency by the name of the Quality Assurance Agency (QAA) to monitor the performance of universities in Pakistan. With time and in response to the feedback received from universities and educationalists, the scope and function of the QAA has been changing to meet international standards. The Quality Assurance Agency facilitated universities in establishing their own Quality Enhancement Cells (QEC).

Academic Quality Assurance is done internally in an institution as well as externally. External quality assurance in a university is done by authorities and/or agencies outside the university while internal quality assurance is done from within the University. Quality Enhancement Cells are internal quality assurance bodies within the universities. However, they are working with the external quality assurance policy makers. Due to the reform agendas of many countries the teachers, being at the center of the reform process, are considered to be accountable for maintaining quality. "This trend is a by-product of decentralization: As central governments delegate responsibilities to local jurisdictions, they require these jurisdictions to demonstrate that they are using their new independence effectively" (Rotberg, 2010:389). In Pakistani universities QEC is responsible for this accountability which is done through teacher ranking and teacher evaluation by students. Findings of these activities are reported to the University management as well as the QAA at the HEC.

Another step taken for improving the quality of graduation programs in the Pakistani Higher Education was the introduction of the four years Bachelors degree.

3.4.3.4 Extending the time duration of the Bachelor degrees

The importance of increasing the duration of the course of Bachelor degree from 2 years to four years was recognized as early as 1959. It was recommended in a report by the education department, Government of Pakistan (Khan, 2010:41). Since then this issue kept appearing in almost all the policy documents of the country. It was after the inception of HEC in 2002, however, that this innovation was implemented. One of the reasons for feeling the need for this change was to meet the international standards of 16 years education at the Bachelor level. In Pakistan Masters degree used to be awarded after 16 years of education (Isani, 2001:352).

3.4.3.5 Grading System

The new guidelines provided by HEC for the universities have flexibility in some areas and the universities can choose different options provided by HEC. For instance, two main grading systems for student evaluation as suggested by HEC are relative grading (Norm-Referenced) system and absolute grading (Criterion-Referenced) system (Higher Education Commission, n.d.-c:07). In the former system students' performances are evaluated in relation to other students, while in the latter a set criterion is used to evaluate student performances.

3.4.3.6 Information Technology Reforms

The following reforms have been brought into the system - also known as e-reforms.

1. Development of country wide educational research network
2. Bringing in the reach of the scholars the use of digital sources
3. Developing a research repository for the potential researchers
4. Making learning possible through e-resources
5. Making available the opportunity of video conferencing

3.4.3.7 Achievements of Higher Education Commission

The establishment of HEC yielded a substantial affect on the higher education in Pakistan. For instance:

a. Each and every student of the public sector universities has been given access to e-textbooks and research articles from international research journals.
b. Enrolment to the universities has been quadrupled over a span of five.
c. Promotion of research culture has resulted into the enhanced number of research publication giving birth to new knowledge and courage to others to write and contribute to the world of knowledge.
d. Even a long span could not get any Pakistani university some place among the high ranked universities of the world. Five Pakistani universities including National University of Science and Technology could get a standing position among the top 300 universities of the world.
e. To bring in quality into teacher education programs, UNESCO has supported a project in the pre-step for the initiation of B.Ed. elementary honors which would

have international recognition. f) As an innovative step, HEC has financed around 5000 PhD scholars for their study in advanced countries. In this context, it is noteworthy that the Fulbright Scholarship, a prestigious scholarship of the world, is being exploited for the Pakistani scholars through the joint funding of HEC/USAID.

f. HEC has given affiliation to around fifty universities for offering new novel market oriented programs.

3.4.3.8 HEC Programs and Projects

The running of following programs may be credited to HEC:

1. Capacity building of the faculty
2. Under taking of revision of curriculum
3. Development of infrastructure of higher education
4. Award of indigenous scholarships
5. Grant of foreign scholarships
6. Patent filing support
7. Travel grant for participation in the conferences
8. Increasing collaboration between industry and university research
9. Bringing in technology reforms

Activity

Discuss with some public representatives and try to explore the role NGOs can play in promoting higher education through funds and through technical support.

3.5 Exercise/Self Assessment Questions

1. Which plan in your opinion has been most successful in promoting higher education? Give at least five reasons to support your answer?
2. Elaborate and point out recent recommendations in the current five year plan for the development and expansion of higher education?
3. Discuss the importance and impact of technology reforms programs of HEC for promotion of quality education in Pakistan? How has laptop scheme added a value to this program?
4. How far do you agree/ disagree with the recommendations of the study groups on higher education for the ninth five year plan?
5. How can the quality of research in Pakistan be improved by extending funds and support to the travel grant program of HEC for participation in the conferences?
6. Discuss the present situation regarding research culture in Pakistan? Identify major problems of researchers also suggest some ways to promote in universities of Pakistan?
7. How far do you agree/disagree with the statement that HEC's programs have enhanced research quality in Pakistan? Discuss with special reference to:
    i. Travel grant to participation in conferences
    ii. Technology reform program

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Unit–4

HIGHER EDUCATION IN DEVELOPED COUNTRIES

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Introduction

This unit provides a sketch of higher education system in selected developed countries based on the following reasons: Firstly, higher education in developed countries is playing a major role in their social and economic development as the Organization for Economic Co-operation and Development (OECD 2008) points out that tertiary education contributes to social and economic development by:

- Human capital development mainly through teaching.
- Knowledge foundations construction with the help of research and knowledge progression.
- The distribution and utilization of knowledge principally through collaborations and coordination with knowledge users.
- The preservation and repair of knowledge through inter-generational storage and communication of knowledge.

Secondly we are living in a global village and globalization has a great effect on every sphere of life including higher education i.e. the higher education has now become a global phenomenon as Probert (2015) indicates that higher education is becoming an increasingly global system, with high levels of mobility among students and academics as well as international networks of research collaboration.

Developed countries have high quality higher education therefore they attract students from all over the world. There is a need to make continuous improvements in quality of our higher education system according to international standards and criterion i.e. development of globally competitive higher education system is required which is relevant to the needs of our society. So study of higher education system of developed countries will be highly beneficial and useful in this context. We must know what is going on in the world especially in developed countries in order to compete on the international level

Therefore this unit focuses on the higher education system in four selected developed countries USA, United Kingdom, Germany and Australia keeping in view the following areas:

- Role of the higher education in these countries.
- Types of higher institutions students attend.
- Type of Higher Education/ Types of Courses.
- Governance/ Regulatory bodies in higher education.
- Major funder of higher education/ Financing of higher education.
- The role of governments and regulatory authorities in accreditation/ Quality Assurance in higher education.

Objectives

After studying this unit, the students will be able to:

- describe the current status of higher education in selected developed countries
- compare the higher education systems of selected developed countries
- discuss, why educational quality of higher education system needs to be demonstrated and how its quality is defined, improved and assured in selected developed countries
- identify the mechanism of financing of higher education in selected developed countries
- comprehend the role of higher education in selected developed countries

4.1 Higher Education in USA

The United States is a federal republic made up of 50 states, one district (the capital) and four territories. The national Department of Education sets guidelines relating to general education policy, collects data and awards subsidies and scholarships, but exerts limited influence on the content, learning outcomes or quality of education Dutch comparison of qualifications (Education system United States 2016).

Higher education is provided by colleges, universities, or institutes in USA after the high school education. USA has a unique, decentralized, diverse higher education system in the world. Some features of the its higher education system are described here

4.1.1 Institutions of Higher Education and Commonly Awarded Degrees/Certificates

The higher education system in USA is diverse and following institutions are responsible for higher education:

i. Public four-year colleges/ universities:
   Which usually offer either four years of general undergraduate education or a combination of general and paraprofessional education whereas universities offer both undergraduate and graduate education as well as professional degrees?
ii. Public two-year colleges, generally called 'community, junior, or technical colleges
iii. Private non-profit institutions
iv. For-profit private sector (OECD, 2012)

There are over 4000 public and private higher education institutions in the United States. The fact that an institution is public or private is no indication of the quality or level of the programs offered. The same applies to the terms 'college' and 'university'. The quality of the education can be good or substandard at either type of institution. Officially, the difference between universities and colleges is that a university offers both graduate and undergraduate programs and has more professional schools, whereas colleges concentrate on undergraduate programs. There are many exceptions, however because states have different regulations and traditions. For example, many institutions called "universities" do not offer degrees beyond the master's degree; some offer no degrees beyond the bachelor's degree. Some "colleges" offer doctorates. A few prestigious comprehensive research universities in the country are known as "institutes" for example, California Institute of Technology and Massachusetts Institute of Technology (Education system United States 2016).

There is no national qualifications framework in the U.S., but the credentials awarded by postsecondary institutions. There is no distinction between academic educations and higher professional education in the United States i.e. no binary education system. OECD, (2012) provides a summary of the features of the most commonly awarded degrees, which can be obtained in either type of education below:

- Postsecondary certificates: These are 3-months to under 2-years occupational skills certificates• Associate's degrees: associate's degrees are of two types first are

academic associate's degrees, which are followed by a 4-year bachelor's degree. The second is the occupational associate's degree, which is designed as a terminal degree to prepare students for work.

- Bachelor's degrees: These are four-year degrees that can be awarded in academic or occupationally related fields (e.g., engineering, education, business administration). Master's degrees: These are 2-year post-baccalaureate degrees.
- Doctorate degrees: These are 4-year post-baccalaureate degrees and are typically intended to prepare students to be researchers and/or postsecondary instructors.
- First professional degrees: These post-baccalaureate degrees are usually of 4-6 years in duration and prepare students for professional practice (most commonly in law or medicine.

4.1.2 The Academic Year

The academic year ranges in length from 32 to 36 weeks. It usually begins in late August or early September and ends in early or late May. Most colleges and universities divide the September to May academic year into two semesters. Others divide the entire year into four periods of 12 weeks each, called quarters (one "free" week separates each of the quarters); the three quarters that fall between September and May are regarded as a normal academic year, and the fourth quarter is a summer session. A few institutions divide the entire year into three equal trimesters. At most colleges and universities, a two- to three-week holiday begins in mid-December and continues into January. Most also have a two- to three-day holiday in November for Thanksgiving and a one-week spring holiday in March or April.

Colleges and universities on the semester system vary in their scheduling of summer sessions. Although courses held during a summer session usually have the same number of class hours as those held during the spring and fall semesters, they are more concentrated. The number of weeks in a summer session typically varies from three to eight (American Council on Education, 2001).

4.1.3 Admission Criteria for Students

Criteria of admission for students in higher education institutions varies widely. These education institutions contain unique admission policies according to their missions. Some institutions possess, admission criteria comprises of students' grades, their test scores, letters of recommendation, language proficiency for foreign students, community and leadership activities, and an application essay. There are institutions which use admissions procedures where often applications are received in advance of the enrollment period of about one year. These institutions evaluate entire applicant group and then decisions regarding admission is taken. The importance on grades, examinations, and other factors varies in these institutions. Most of the community colleges and a few colleges and universities provide "open door" or non-restricted admissions to the students. These institutions usually give admission to students as soon as their applications are received and keep admissions open just before the beginning of the classes. They admit all secondary school graduates and give no importance to previous grades or test results in this regard. "Open door" admissions commonly apply to those

students which are not foreign.Admission to a college or university does not necessarily guarantee admission to a specialized program or major within the institution. For example, admission to an accredited nursing program usually is based not only on the admissions criteria of the institution, but also on satisfactory scores in the pre-nursing examination designed by the National League for Nursing. In the case of the fine arts (art, music, and theater), applicants typically are asked to demonstrate their talents through presentation of a portfolio of their artistic works (or performance audition in music or theater). Science and engineering programs often require that the applicant have higher standardized test scores in mathematics than are required for general admission to the institution(American Council on Education, 2001).

4.1.4 Administrative Structure in Higher Education Institutions

The organizational structure of a college or university reflects the institution's size, philosophy, and objectives and usually is influenced by the relative priorities placed on teaching, research, and public service.

Many colleges and universities, as well as scholarship sponsors, require applicants to take entrance examinations. These provide a common measure for comparison and aid in the evaluation of academic potential.

Most first-year undergraduate applicants are required to take one or more of the tests sponsored by either the College Entrance Examination Board or the American College Testing Program.

Most academic graduate departments establish their own entrance requirements, including admission tests, and must be contacted directly to find out which tests are required. This is particularly true for graduate students seeking admission to programs in mathematics, history, engineering, physics, and chemistry, for which some departments within an institution require one or more of the Graduate Record Examinations, while others do not.
Many US higher education institutions are intensifying their efforts to internationalize their curriculum, research, and service functions.

The American Association for Higher Education (AAHE) is the individual membership organization that promotes the changes higher education must make to ensure its effectiveness in a complex, interconnected world. The association equips individuals and institutions committed to such changes with the knowledge they need to bring about those changes .To achieve this, AAHE articulates agendas for change, provides forums and contributes to knowledge, advocates effective practices, documents and promotes new concepts of scholarship, and helps institutions develop their capacities.

AACTE is a private, nonprofit, nongovernmental association committed to the improvement of teacher education. Its members are U.S. higher education institutions engaged in teacher and administrator preparation, in-service education, and educational research.

States and abroad, are professionals working in admissions, enrolment management, financial aid, registration, records, scheduling, academic standards, institutional research, and student progress. Its corporate members are drawn from education-related businesses and agencies, as are its associate

4.1.5 Student Financial Aid

Students can receive education grants (which do not need to be repaid) or loans from a variety of sources, including the federal government, state governments, postsecondary institutions, or private sources (such as employers) (OECD, 2012)

4.1.6 The Role of the Federal Government and States

American Council on Education (2001) describes in a brief guide to U.S. higher education that Public institutions are governed by boards of regents or trustees whose authority is delegated by the state, county or city government. Conventionally, state, county or city government provide funds to public institution as their largest single source of revenue, although in recent years, some state governments have reduced their financial aids less than one-quarter of public institution revenue.

American Council on Education (2001) in this guide further explains that most higher education institutions are either established by the state (public colleges and universities) or receive their charters from them (most private institutions). State governments possess legal authority to regulate and approve their continued operations, even though independent nongovernmental bodies carry out the accreditation. The state departments of education, state boards of higher education, and, in some cases, state universities or special state commissions share responsibility for state institutions. Private colleges and universities have their own governing boards but are subject to state laws governing non profit and for-profit organizations. The federal government generally does not exercise control over U.S. higher education as in the most other countries of the world where governments control higher education through their ministries of education though there are several federal institutions in the United States like Howard University, the military academies, and tribal colleges that are under the federal government responsible for education. Each state is responsible for most aspects of education within its boundaries. State authority over private colleges and universities generally is very limited. Higher education in USA is decentralized and each state has an authority to supervise and control higher education within its jurisdictions and borders. USA has no centralized national ministry of education as it is present in most of the countries of the world. Department of Education is present at the national level but its authority and application are limited.

Higher education institutes in USA have diverse governing authorities and funding resources depending upon the type of institution. Private institutions have self-governing boards and tuition fees from students are their main source of funds. They do not receive financial aids from the federal or state government, however state and federal research, scholarship, and loan funds are available for accredited institutions.

4.1.7 Accreditation and Quality Assurance

The process of accreditation which is an important process in quality control of higher education is independent, voluntary, nongovernmental, and self-regulatory in USA. Neither the national nor state Department of Education plays any role in accreditation and quality assurance of higher education in USA as in various other countries of the world.American Council on Education (2001) in a brief guide to U.S. higher education expresses that two core values shapethe quality assurance process: the importance of quality and high standards, and institutional autonomy. In that context, the accreditation process has developed around voluntary, nongovernmental, self-regulatory structures. The U.S. Department of Education is not responsible for accreditation, quality control, or standards, as are ministries in many other countries.

This guide also explains the role of the Council for Higher Education Accreditation (CHEA) in the following words.

"The accreditation process is coordinated, and to some extent overseen, by the Council for Higher Education Accreditation (CHEA). The Council for Higher Education Accreditation (CHEA) helps preserve the independence and autonomy of the accreditation process. CHEA is a national membership organization of colleges and universities; regional, national, and specialized accreditation associations; higher education commissions; and specialized groups that accredit specific disciplines and professions."

There are two basic types of accreditation in USA which are institutional accreditation and specialized accreditation. Institutional accreditation recognizes an institution as a whole. Institutional accreditation is approved by the regional and national accrediting associations, which collectively serve most of the institutions chartered or licensed in the United States. Institutional accreditation is voluntary, but necessary for survival of a college. Parents, prospective students, and counselors consider accreditation while choosing an institution and loss of accreditation, or threat of loss affect student enrollment severely. It destroys the institution's ability to recruit good faculty. Institutional accreditation is also necessary to receive federal funds, and it is always a necessary requirement for funding from foundations. Graduation from an accredited institution generally is a prerequisite for admission to graduate school. Employers rarely recognize credentials obtained from a non-accredited institution. Specialized accreditation recognizes a program or unit within an institution. Specialized accreditation is most common in professions such as medicine, law, social work, and journalism. Specialized accreditation of professional and occupational schools and programs is granted by commissions set up by national professional organizations in such fields as business, medicine, art, dance, journalism, engineering, and law to provide assurances of educational preparation (American Council on Education, 2001).

4.1.8 The Role of Higher Education in Economic Development of USA

The role of higher education as a major driver of economic development is well established, and this role will increase as further changes in technology, globalization, and demographics impact the United States. (Sampson, 2004)

Pillay (2011) describes that role of higher education in economic development such as it includes economic development as part of its core mission. The colleges and universities serving the region allocate fiscal, physical, and human resources and created entrepreneurship systems within the institutions to advance economic development. Senior administrators provide strong, visible leadership designed to:

- create a quality workforce by growing, training, and attracting the finest talent
- support current business and industry
- improve learning and teaching from pre-school through graduate school
- take strong and visible roles in regional initiatives
- disseminate research and promote technology transfer
- enhance the technology infrastructure
- promote livable communities
- employ a diverse workforce

For Further Reading

American Council on Education, (2001). A brief guide to U.S. higher education. Washington, DC: American Council on Education.

Pillay, P. (2011).Higher Education and Economic Development Literature review, the Centre for Higher Education Transformation (CHET), House Vincent, First Floor, 10 Brodie Road, Wynberg Mews, Wynberg,

4.2 Higher Education in United Kingdom

The United Kingdom is the entire group of islands consisting of Great Britain, Northern Ireland and the smaller British Isles. The name 'Great Britain' refers only to the largest of these islands, that is, the island containing England, Wales and Scotland (Education system United Kingdom, 2015).

4.2.1 Higher Education Providers and Degree Awarding Powers

Higher education in the UK is provided by a diverse range of universities, colleges, institutes, schools or academies. All of these institutions can provide both academic and higher professional education. There is therefore no binary system in which some institutions solely focus on academic education and others only on higher professional education. For example, an institution can decide to offer simultaneous Bachelor of Engineering programs with either an academic or professional focus (Education system United Kingdom, 2015).

Universities range in size from under 4,500 students to over 32,000 students. The combined schools and colleges of the University of London have over 124,000 students; and the Open University, whose part-time students study by distance learning, is even larger with over 158,000 students. Colleges range in size from small specialist institutions with 460 students, to large multi-discipline institutions of 13,700 students. The average size of higher education colleges in the UK is 3,500 students. Many colleges cover a wide range of subjects, while

some specialize in one or two areas, such as art and design, dance and drama, agriculture, or nursing. Like universities, they are self-governing and independent.

In the UK, higher education academic qualifications are not national awards, but are granted by individual institutions. All universities have the legal power to develop their own courses and award their own degrees, and determine the conditions on which they are awarded. Some higher education colleges and specialist institutions without these powers offer programs, with varying extents of devolved authority, leading to the degrees of an institution which does have them (Education system United Kingdom, 2015).

4.2.2 Type of Higher Education and Degree Courses/Programs

Education system United Kingdom (2015) explains type of higher education and degree courses/programs in a very clear way below:

Education is divided into undergraduate and postgraduate study. Undergraduate study ends in a 'first degree. First degree courses, commonly known as bachelor's degrees and usually awarded 'with honours', typically take three years to complete in England, Wales and Northern Ireland, and four years at a Scottish university. Courses which include a period of practical work outside the institution normally take four years. Certain specialist courses and some vocational or professional degree courses may take longer. For example, medicine and dentistry can take up to six years (not including further specialist training) and architecture up to seven years.

Most bachelor's programs take 3 years, yet there are also numerous 4-year programs. Bachelor's programs in Medicine, Veterinary Science, Dentistry and Architecture last 5 or 6 years. The names of bachelor's degrees (and also of master's degrees) indicate the specialization taken. The traditional division is between arts and science, with science referring to courses in the natural sciences and technical studies, and arts covering all other specializations. Over the years a host of variants have appeared, such as the B.Com (Bachelor of Commerce), BEd (Bachelor of Education), BEng (Bachelor of Engineering), LLB (Bachelor of Law) and dozens of others. A bachelor's degree can be awarded as an 'honours degree' or an 'ordinary degree' (also called a 'pass degree'). An honours degree indicates completion of an honours program, i.e. a bachelor's program with the same duration as an ordinary program (3 or 4 years) but with a higher study load and more examinations. The term 'honours' here therefore does not mean that the student has graduated with honours, but only that he/she completed an honours program. Student performance is expressed differently, namely through the use of a class indication; first class, upper second class, lower second class and third class. In the British system, a class only applies to honours bachelor's degrees, not to ordinary or master's degrees.

Master's degrees are by nature postgraduate degrees, meaning programs following a degree (from the Latin grades, a step or stair). By far most master's programs at British universities last for 1 year following a bachelor's program. However, there are now also initial master's programs taking 4 years to complete following the GCE A levels. In English universities this group of programs is small and concentrated mainly in technical

specializations, whereby the bachelor is 'skipped' and a master's degree is awarded after 4 years. Much more well-known are the initial master's programs at Scottish universities, where the traditional first university degree is not a Bachelor but a Master. See also under Scotland. There are 2 types of master's programs: the 'normal' Master's, and the Master of Philosophy (MPhil). The first type is also subdivided into 2 groups: master's programs based on course work (Master by instruction), and programs consisting mainly of research and an associated final paper (Master by research). These programs therefore differ in character, yet they are regarded as being equivalent in level. Just as for bachelor's degrees, the names of both types of Masters also indicate the specialization taken, such as Master of Arts (MA), Master of Science (MSc) and Master of Engineering (MEng). Programs usually take 12 months, sometimes longer, and in rare cases 2 years. The Master of Arts degrees at the universities of Oxford and Cambridge form an exception to this rule. These degrees do not require any additional study or examinations, but are awarded after a certain period of time to those who have obtained an honors bachelor's degree at one of these universities. The second type, the M. Phil, is a 2-year research program involving little to no coursework, and usually represents a level higher than a master's degree. The 'philosophy' designation does not mean that the program is related to the study of philosophy (as M .Phil programs can be offered by all faculties), but rather that the program is based on the completion of research.

After a master's degree, students may be admitted to the Doctor of Philosophy (PhD, sometimes written DPhil). This degree is awarded after a research period of 2 or 3 years following a master's degree, and the completion of a doctoral thesis. In practice, a bachelor's degree is often accepted for admission to a PhD, in which case the student in question usually has to take additional classes to support his/her research.

Professional programs can be degree programs (e.g. at universities), however, they can also be non-degree programs. Graduates of the latter type are awarded nationally recognized certificates from professional associations or other umbrella organizations, such as Edexcel.

A much more important distinction is the one between degree and non-degree programs. Graduates of degree programs are awarded a degree (a bachelor's, master's or doctor's degree) whereas graduates of non-degree programs receive a different type of qualification, usually a certificate or diploma. Both program types can be either academic or professional in nature. Education system United Kingdom | EP-Nuffic | 2nd edition December 2010 | version 3, January 2015 The two most important non-degree qualifications in higher education are the Higher National Diploma (HND) and Higher National Certificate (HNC), both from Edexcel. These programs are mostly no longer provided by universities, but by other (often private) education institutions, which can also offer their own programs and award their own certificates.

At universities, the academic year is usually divided into trimesters (terms).

4.2.3 Modes of Study of Higher Education in UK

Modes of study of higher Education in UK universities and colleges are:

- Full-time study: Timetabled hours (those taken up with scheduled lectures, seminars, tutorials etc.) will vary from course to course. Hours may also vary from term to term (or from year to year) as teaching elements or modules change. As well as timetabled hours, many courses will stipulate a required number of self-directed study hours that are deemed necessary to succeed in the course.
- Part-time study or flexible study: Not all higher education courses are available on a part-time basis, but a good many are. This is particularly true of postgraduate, vocational and non-degree courses.
- Distance learning: The growth of the internet has enabled many people (from both the UK and around the world) to study with UK universities and colleges through distance learning. Many institutions provide online university classes and courses. Distance learning courses are available at many levels, including degree and postgraduate qualifications.
  Higher Education and Research Opportunities (HERO): choosing your mode of study www.hero.ac.uk

4.2.4 Admission to Higher Education

Determination of student numbers In England, Wales and Northern Ireland, overall student numbers for the higher education sector as a whole are determined by the government. The higher education funding bodies make allocations to institutions to meet overall student number plans and set targets for student numbers to institutions. The purpose of these targets is to ensure that institutions deliver teaching activity for the funding provided. For a few subject areas, there is a greater degree of central control. Undergraduate medical and dental courses are subject to quotas, in order to ensure that the number of medical and dental students required to meet national needs is delivered. Nursing and midwifery provision is largely funded by the health authorities which contract with institutions for the delivery of specified numbers of trainee nurses and midwives.

4.2.4 Transcripts and the European Diploma Supplement

Each higher education institution can provide its student with a record of their accumulated credits. In many cases this is in the form of a transcript that is produced annually, on completion of the program, or both. This record can be a particularly useful document for students who want to take a break from learning and return to study later, or transfer their credits. However, as part of the Bologna Process, which aims to create greater consistency and compatibility within European higher education, all UK higher education institutions are now moving towards issuing the European Diploma Supplement. In England, Wales and Northern Ireland, higher education institutions began to introduce the Diploma Supplement from 2004/05 and the majority of institutions now issue it.

4.2.5 Responsible Authorities and Higher Education Related Bodies Funding for Different Activities of Higher Education

The two departments, the Department for Education and the Department for Business, Innovation and Skills are responsible for education in England. These two departments'

lies with the Ministry of Education essentially consisted of two ministries since 2007. While in Scotland, Wales and Northern Ireland Responsibility for education has been delegated to the local ministries of Education(Education system United Kingdom, 2015). These departments are responsible for overall public policy towards higher education. They are the source of the public funds that support higher education institutions. Higher education funding councils In England, Scotland and Wales, government funds are distributed by higher education funding councils. They act as intermediaries between Government departments and higher education institutions. Funding Councils for England, Scotland, and Wales, and via the Department for Employment and Learning in Northern Ireland. These funding councils provide both financial support and general guidance to institutions. These are the Higher Education Funding Council for England (HEFCE), the Scottish Further and Higher Education Funding Council (SFC) and the Higher Education Funding Council for Wales (HEFCW). Only in Northern Ireland do universities receive funding directly from government via the Department for Employment and Learning (DELNI). Their websites can be found at: http://www.hefce.ac.uk; http://www.hefcw.ac.uk; http://www.sfc.ac.uk and http://www.delni.gov.uk2

The UK's HEIs are not owned or run by government. They are independent, autonomous legal entities, with Councils or Governing Bodies that have responsibility for determining the strategic direction of the institution, for monitoring its financial health and for ensuring that it is effectively managed. While the majority of HEIs receive some public funding as a percentage of their total income, the proportion varies considerably between institutions (higher education system of UK).

Non-repayable maintenance grants to help with general living costs and available to those new full-time students entering higher education. The amount of the grants varies according to student's household income. The main sources of financial help for part-time students are different from those available to full-time students. Depending on their circumstances, they may be able to apply for the part-time fee grant and course grant. How much they can get depends on their household income and personal circumstances.

Government funding for research is administered under what is known as the 'dual support' system. One strand of this comes in the form of an annual 'block grant' from the Funding Councils. This supports the UK's research infrastructure and enables individual universities to carry out research as they determine, in keeping with their own missions and priorities. The other strand provides grants for specific research projects, contracts and postgraduate programs and is delivered via the seven Research Councils – public bodies charged with investing public money in UK science and research – with additional funding available from charities, industry, the European Union and other UK government departments (higher education system of UK).

4.2.6 System of Accreditation and the Quality Assurance System

British higher education has no government-run system of accreditation. There are certainly accreditation bodies in the United Kingdom, yet they do not act on behalf of the

government and therefore focus more on private institutions or certain types of education, such as education by correspondence or professional examination programs. The British government may recognize higher education institutions through legislation, such as a Royal Charter. These institutions constitute the group called recognized bodies. There is also a group of listed bodies – institutions that are not recognized through legislation but are authorized to provide recognized programs through cooperation with a recognized institution. Lists of both groups of institutions can be found on the website of the Department for Business, Innovation and Skills (Education system United Kingdom, 2015).

Education system United Kingdom (2015) while explaining the responsibility for assuring the quality of the education describes that each higher education institution in UK has the responsibility for assuring the quality of the education it provides and the standards of the qualification it offers. Individual universities have the primary, longstanding and legal responsibility for managing their quality to ensure that their students have a good experience and for maintaining standards to protect the value and currency of awards. Universities fulfill their responsibilities for assuring standards and quality.

According to Education and Skills (2003) the QAA has performed an important role in assuring academic quality and standards in higher education. Through its assessment of teaching in Subject Reviews, it has been instrumental in defining standards for teaching, and enabling poor provision to be identified and eliminated. Recently, the QAA external review processes were radically changed to reduce the burden on higher education institutions, recognizing the progress that has been made.
Each university discharges these responsibilities with reference to the QAA Code of Practice and QAA, in turn, checks how they do this through its review process which results in a published statement about the degree of confidence that can be placed in each university's ability to manage standards and quality.

Thus, the assurance of standards and quality in the UK is led by the higher education institutions themselves. In addition, they are externally checked and assured by QAA's schemes and other initiatives. The QAA undertakes regular, formal, external reviews of universities, called 'Institutional Audit' in England and Northern Ireland, 'Institutional Review' in Wales, and 'Enhancement-led Institutional Review' in Scotland.

Besides these elements, a number of external quality assurance schemes have been undertaken by the funding bodies, the Higher Education Academy, professional, statutory and regulatory bodies, and other related bodies.

4.2.7 Higher Education and Economic Development in UK

The involvement of the higher education in economic development in UK is quite evident. The higher education Institutions provides people with latest knowledge and modern skills have great impact on UK economies. Higher Education (HE) is recognized as a key economic sector in the UK, having an impact on economic growth and competitiveness (BIS 2013).

Universities UK (2010) in the report "The study Creating Prosperity: the role of higher education in driving the UK's creative economy" found that higher education plays an important role in the UK creative economy by:

- research that supports innovation in the creative economy
- new models for interacting with creative businesses
- acting as hubs for innovation at the heart of regional creative clusters
- the development of talent and high-level skills for the creative economy
- activities that enhance the employability and enterprise skills of students and graduates
- provision of tailored and high-quality continuing professional development (CPD) to the creative industries.

For Further Reading

BIS (2013) The relationship between graduates and economic growth across countries, a report by NIESR

McNeil, Claire and Silim, Amna. 2012. "Further education? Tertiary education and growth in the UK's new economy" UCU report.

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4.3 Higher Education in Germany

Federal Republic of Germany is consists of sixteen states. The responsibilities of the Federal Ministry of Education and Research only creates general guidelines for education whereas the states make their own legislation for education. Therefore the education system differs from state to state due to this reason (Education system Germany, 2015).

4.3.1 Academic and Higher Professional Education and Institutions Responsible for It

Higher education in Germany is run according to a binary system, in which a distinction is made between academic education and higher professional education. The former East German states (reunification took place on 3 October 1990) have mostly adopted the education system from the west.

Generally the medium of education is German language but due to the influence Bologna Process (Legislation enacted in 1998 made it possible for higher education institutions to offer bachelor's and master's programs on a voluntary basis based on modules and the ECTS, and accreditation by the new, independent Akkreditierungsrat) there are number of higher education institutions that offer higher education programs in English. Majority of these programs are master's programs.

There are more than160 universities, Kunsthochschulen (art schools) and Musikhochschulen (conservatories) and about 200 Fachhochschulen in Germany. There are also private education institutions, of which an increasing number is recognized. At least 70 higher education institutions belong to the private sector that are nationally recognized.

The German higher education system has two basic components: • Universities providing academic education • Universities of applied science or Fachhochschule which provide professional and technical education It is estimated that there are about 100 private institutions enrolling about 4.5 per cent of the student population (Kehm, 2014).

4.2.1.1 University Academic Education

The following institutions are part of the university system: Universitäten, TechnischeUniversitäten/Hochschulen and other WissenschaftlicheHochschulen of similar level, such as Pädagogische/ErziehungswissenschaftlicheHochschulen, MedizinischeHochschulen and Philosophisch-TheologischeHochschulen.

Magister / DiplomprogramsThe nominal duration of these traditional programs is around 9 semesters, which includes preparation time for examinations. Some programs that consist of two stages have an initial academic program lasting 3½ to 4½ years (such as some teacher training and law programs).

Programs usually contain a 2-year Grundstudium and a 2-year Hauptstudium, plus the time required to prepare for examinations. The Grundstudium is completed through interim examinations, for which the Zwischenprüfungszeugnis, DiplomVorprüfungszeugnis or Vordiplomzeugnis certificates are awarded.

The programs award the following titles:
Magister: programs in the arts or social sciences usually award this title; these are programs with a single major and two minors, or two majors.

B. Diplom: programs awarding this title are generally those in natural or social sciences.These are programs with a single major.

C. Staatsprüfung (state examination): the academic part of programs in law, food chemistry and teacher-training programs conclude with the ErsteStaatsprüfung (first state examination). Following that, a predominantly practical program leads to the ZweiteStaatsprüfung (second state examination), which grants the legal right to professional practice. The pharmacy Staatsprüfung is made up of three sections (Abschnitten). The third section marks the completion of a 1-year practical program apart from the academic program.

Lizentiat / Licentiatus This degree is usually awarded to the students that study theological disciplines.

Bachelor's-master's programs: Generally the duration of bachelor's programs at a wissenschaftlicheHochschule is usually 6 semesters. Upon completion of the bachelor's program students are awarded the degrees of Bachelor of Arts and Bachelor of Science (or variations on these names, such as Bakkalaureus / Baccalaureus Artium and Bakkalaureus / Baccalaureus Scientiae / Scientiarum).

Maximum duration of a bachelor's program plus an associated master's program is not more than 5 years. That is the subsequent master's programs last on average 1½ to 2 years. The titles awarded are Master of Arts and Master of Science, (or the variants Magister Artium and Magister Scientiae / Scientiarum).

PhD All final university examinations (except those for bachelor's programs) and (first) state examinations grant admission to doctorate programs. Graduates of doctorate programs are awarded the degree of Doktor. Usually the duration of such program is 2 to 4 years. Following the doctorate, graduates can complete the Habilitation, which qualifies them for professorship.

4.3.1.2 Higher Professional Education

Fachhochschulen provides following types of higher professional education to the students in Germany.

Diplomprograms are of 3½ to 4 years duration. These programs take 6 semesters, plus an additional semester in order to prepare for examination sand usually 1 or sometimes 2 work-experience semesters, or an integrated study program of 8 semesters. Fachhochschule programs usually consist of a 1½ to 2-year Grundstudium awarding the Diplom-Vorprüfungszeugnis or Vordiplomzeugnis, as well as a 1½ to 2-year Hauptstudium, awarding a Diplom like in academic university programs. But this title is different from the university Diplom, and does not grant the same rights. Most of the states (but not all) place the letters FH (Fachhochschule) after the title.

Graduates with a Diplom-Sozialpädagoge/Sozialarbeiter are only granted the legal right to professional practice after passing the Staatliche Anerkennung following a year of work experience, either integrated into or following the study program.

Fachhochschulabsolventen (Fachhochschule graduates) are also eligible for entry into doctorate programs in most of the states.

Bachelor's-master's programs are offered at a Fachhochschule. The duration of bachelor's programs is generally 6 semesters, after which graduates are awarded a Bachelor of Science/Arts or a Bachelor of Engineering/Business Administration. The associated master's programs last between 1 and 2 years, after which graduates are awarded a Master of Science/Arts or a Master of Engineering/Architecture/Business Administration.

Gesamthochschulen offer cooperative and integrated forms of academic and higher professional education only available in Hessen and Nordrhein-Westfalen. These combined specializations include professional programs of 4 years duration including a work-experience and examination semester or an academic programs of 4½ years, including exam preparation.

The programs are structured according to two models (the duration given below does not include work-experience or exam-preparation semesters): A. A common Grundstudium of 4 semesters, followed by a • 1-year Hauptstudium (I), allowing students to obtain a Fachhochschuldiplom, or a • 2-year Hauptstudium (II), allowing students to obtain a university certificate (Diplom/Magister). Before qualifying for admission to the Hauptstudium II, those with a Fachhochschulreife must complete additional subjects (Brückenkursen) and sit a Zwischenprüfung (interim examination). B. A common Grundstudium (1 year) and Hauptstudium (2 years) concluding with the Diplomprüfung I, allowing students to obtain the Fachhochschuldiplom. This is followed by a 1 to 2-year program culminating in the Diplomprüfung II, allowing students to obtain their university certificate (Diplom/Magister).

Aufbau-, Zusatz- and Ergänzungsstudien Numerous institutions (Hochschulen and Fachhochschulen) offer 1 to 2-year programs (mostly postgraduate) that do not culminate in the awarding of a doctorate.

NB: Berufsakademien offer a combination of theoretical and practical programs, usually lasting 3 years, to holders of a Fachhochschulreife. Berufsakademien only fall under higher education in Baden-Württemberg, Berlin, Niedersachsen and Sachsen. They award a Diploma (BA), and the programs usually confer no rights under the equivalence agreement.

4.3.2 Quality Assurance and Accreditation

The Accreditation Council is the national accreditation body for the Federal Republic of Germany. It acts in the public interest and as the sole provider of accreditations in Germany. It is the guardian of the national quality seal conferred upon study programs but it is not itself engaged in the evaluation and accreditation of these programs. The Accreditation Council accredits agencies, and these in turn accredit study programs. Accreditation covers: quality standards, equivalence of degrees, grades, qualifications, and mobility schemes. Approval from the relevant federal state is also required before any institution can establish bachelor and master's degree courses, but this is often granted on the basis of accreditation. Business courses (e.g. BBA; MBA, economics, business computing) are administered by the Foundation for International Business Administration Accreditation (FIBAA). "If a university is accredited by the state, that's generally a way to be sure its degrees are of good quality. Private universities that aren't accredited by the state may not offer curricula that meet the research and teaching standards found at accredited German universities" (Unseld & Reucher, 2010). Institutional accreditation aims to establish whether an institution can deliver courses which can be defined as belonging to the higher education sector. "This procedure serves

to secure the quality of private universities and to produce transparency and comparability between educational programs" (Stannek & Ziegele, 2007, p. 194). A series of recommendations were produced by a committee of the German Council of Science and Humanities, which conducts accreditations, specifically for the accreditation of private universities (Hunt, Callender, & Parry ,2016).

The principal task of the independent Akkreditierungsrat is to accredit subject-specific accreditation organizations that evaluate education programs. The Akkreditierungsrat has seventeen members, representing the federal states, higher education institutions, students, employers, employees and also containing international representatives. Only in exceptional circumstances can the Akkreditierungsrat accredit programs itself (Education system Germany, 2015).

The German system of accreditation has developed to accommodate the Bologna Process, and concerns both the study programs and the institutions themselves. Courses are assessed in a like manner irrespective of an institution's public or private status. The 1998 Federal Framework Act for Higher Education (HRG) established the basis on which universities could award bachelor and master's degrees, but this is not sufficient for accreditation.

4.3.3 Funding and Governance

Funding Regional state recognition is a necessary condition for the conferment of academic titles, and the appointment of "professors". State recognition also allows a private HEI to apply for state funds via two distinct routes. The first via the University Construction Act, in accordance with which the federal government funds the physical structure of universities, including buildings, and expensive equipment (Fichtner, 1990). The second through the German Research Foundation, an organisation that supports individual projects and research collaboration, awards for outstanding research achievements, and funding for scientific infrastructure and scientific cooperation (DFG, 2016). Private HE providers also receive some state subsidies, and, additionally, fund their activities through tuition fees. The students enrolled in private HE institutions that have gained official regional state recognition qualify for state loans/grants (BAfoG) of up to €650 per month, and are also eligible for sponsorship from local enterprises or foundations. Postgraduates at private institutions are also eligible for the Bildungskredit. This is an educational loan. This is an initiative of the federal government, the Federal Office for Public Administration and a particular loan company to support students by providing educational loans. Access to these loans is unrestricted by a student's family financial background, although no-one has a legal entitlement to it, but anyone can apply. Repayments begin four years after the initial loan payment, but at a low rate of interest.

The model of traditional German university governance took the following form: the universities' internal components of governance involve a largely symbolic figure of president or rector and an academic senate, the highest decision-making body in the university. The majority of the senate's members are professors who are elected by their fellow professors. Each faculty and department also has a similarly structured decision

Study programs should pursue the same goals and be organised according to the same guidelines as a study program at a public higher education institution • Programs should be consecutive and have to offer a broad variety of academic studies • Workload and the examination procedures have to follow the example of public higher education institutions • Students are required to have university entrance qualifications • Teachers should be university qualified lecturers • Full-time professors should have the same teaching qualifications as those at public higher education institutions • Some elements of academic self-governance should be present, e.g. freedom of research • The economic substance and the legal institutions should guarantee existence of the higher education institution on a continuing basis making body. The entire governance system exists without external guidance, or competition (Kehm, 2014). This model was never applied to universities of applied sciences and private universities which tended to be more centralised and more managerial. There have been changes to the traditional model of university governance. The Framework Law was removed from the statue books in 2006 – it disappeared more through abeyance than abolition - and control of higher education became located within the regional states, with an emphasis placed on institutional autonomy. The Federal Government retained regulatory control only over access to higher education and degrees. Institutional governance structures now vary depending on each particular region's legal framework, which directly impacts on the character and degree of institutional autonomy. This allows, for example, some institutions authority over personnel, but denies it to others.

The internal structure of universities' systems of governance typically includes both a senate and a recently introduced board of governors. These bodies are responsible for appointing institutional leaders, either rectors or presidents, and this often involves delicate negotiations between the two. Rectors are typically chosen from internal professorial candidates; while presidents are often external appointments. At a lower level, faculties and departments select Deans from amongst their professoriate. The position of Dean now enjoys a greater degree of authority than it has previously. The increase in institutional autonomy is also linked to a greater professionalisation of university management (Kelm, 2014).

The issue of governance with respect to private universities is somewhat vaguer. It doesn't appear that there are any statutory or legal requirements relating to governance of such institutions. However, in certain cases where accreditation is sought, the accreditation body does indicate governance structures are required to be put in place, but these have not been detailed (Frank, Hieronimus, Killius, & Meyer-Guckel, 2010 cited in Hunt,s., Callender,c., Parry,G, 2016).

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4.4 Higher Education in Australia

Australia is divided into six states (New South Wales, Queensland, Western Australia, South Australia, Tasmania and Victoria) and two territories (the Northern Territory and the Australian Capital Territory), and has three levels of government: federal, state/territorial and local. In Australia, the state/territorial and federal authorities are jointly responsible for education (on federal level the Department of Education, Employment and Workplace Relations and the Department of Industry, Innovation, Science, Research and Tertiary Education (DIISRTE) and). The responsibility for general funding and coordination of education lies with the federal government, whereas the budgeting for individual schools is left to the states/territories. National education targets are formulated in joint consultation (Education system Australia, 2015).

4.4.1 Australia's Higher Education System

Australia has developed an effective and efficient higher education system. A University World News analysis ranked the Australian system third in the world (Gerritsen 2008).According to Higher Education Funding in Australia(2015)Higher Education in Australia is provided in both public and private universities Australian branches of overseas universities, and other non-university higher education providers (NUHEPs). At present, there are 172 registered higher education providers:

- 37 public Australian universities
- 3 private Australian universities
- 1 private university of specialisation
- 2 overseas universities
- 129 NUHEPs (non-university higher education providers)

University is the highest level of study in Australia. Study can be undertaken at an undergraduate level (Bachelor Degree) and/or a postgraduate level (Graduate Certificate, Diploma, Masters, PhD).Vocational institutions include skill-based courses which are closely linked to selected industries and give students practical skills and industry experience. Courses are provided at both government-funded Technical and Further Education (TAFE) institutes and private institutions.

The Australian academic year generally begins in late February/early March for vocational and university students. Universities and vocational institutes consists of two semesters with exams held at the end of each semester in June and November, followed by a long summer holiday break is from November to March break.

Education system Australia (2015) explains that Australian Qualifications Framework (AQF) distinguishes between three different education sectors: the Schools Sector, the Vocational Education and Training Sector and the Higher Education Sector. An important goal of the AQF is to facilitate mobility between the various sectors (flexible pathways), and to promote the recognition of a variety of types of working and learning

Australia has 43 self-accrediting universities, and a much larger number of non-university institutes for professional education. In principle, the degrees awarded by both types of institution are regarded as equivalent.University education in Australia places emphasis on the development of critical thought and of independent intellectual activities. Students enjoy a great deal of freedom in creating their study program. However, they must satisfy the requirements in terms of the number of course credits obtained at the required level. Most study program consist of a broad basis, moving towards increased specialization. Australian bachelor's program often combine practical and academic components (Education system Australia, 2015).

4.4.2 Types of degrees

There are different types of degrees awarded by institutions in Australia like other countries of the world. Types of degrees awarded by these institutions are described in Education system Australia (2015) as follows:

Bachelor's degree is the first degree awarded by most Australian universities which is of several types. The ordinary/pass bachelor's degree requires successful completion of a 3-year full-time program in a field such as arts and sciences. Some professional bachelor's degrees takes 4 years, in fields such as law, engineering and social work, and are usually known as Bachelor of Laws, Bachelor of Social Work, etc.

Honours degree can be awarded to students successful completion of an integrated 4-year program or on the completion of an additional year of research and study to students who achieved good final results during their 3-year bachelor's program
Master's degree is generally awarded to those students who complete a 2-year postgraduate and/or research program after a 3-year bachelor's program or 1 year after a 4-year bachelor's. There are two types of master's programs: a research based master's programs consists of research and a final paper, and a master's programs based on coursework, in which students take classes and, in most cases, must also conduct some research. Research-based master's programs are examined externally and are generally completed by students looking for admission in PhD

PhD degree All Australian universities provide PhD-level programs in addition to bachelor's and master's degree programs (AQF level 10). The duration of the PhD-level programs differ and usually lies between 2 to 4 years. Candidates must have completed an honours bachelor, or must have completed a master's program (in most cases a research master's) in a relevant subject area for taking admission in PhD as a minimum criteria.

Most institutions offer professional programs of varying lengths in the field of art, business administration, theatre, tourism and hospitality, music, religion and theology, and teacher-training programs. In addition to bachelor's, master's, and in some cases even PhD degrees, these institutions can also award Diplomas, Advanced Diplomas and Graduate Diplomas, varying in length from 1 to 2 years. The Diploma and the Advanced Diploma are educational qualifications that can be awarded in either the Vocational

Education and Training sector or the Higher Education sector. Students with an Advanced Diploma as a higher education qualification can be granted exemptions in a bachelor's program. The large variety in diplomas and degrees that are awarded by non-university institutions makes it impossible to provide a single, clear equivalent. A Diploma or Advanced Diploma can be either at MBO or HBO level, depending on the sector and the level of the study program in Australia. A Graduate Diploma is at a lower level than an Australian master's degree

4.4.3 Quality Assurance and Accreditation

The Australian higher education system is comprised of both public and private universities Australian branches of overseas universities, and other non-university higher education providers. All these providers of higher education play an important role in the higher education system and a mechanism is present to regulate and assure the quality of both public and private sector higher education.

Probert (2015) states in his report, the quality of Australia's higher education system: How it might be defined, improved and assuredthatthere are many ways in which the quality of Australian higher education has been both assured and improved over the past two decades. These include the effective longstanding institutional quality review processes that reflect the self-regulating character of Australian universities; external accreditation of programs undertaken by professional bodies; legal obligations overseen by such bodies as the Human Rights and Equal Opportunity Commission and by state/territory ombudsmen; various forms of external quality auditing (such as those undertaken by the Australian Universities Quality Agency); and Commonwealth oversight of a wide range of performance data linked to funding agreements and now underpinned by the power of the Tertiary Education Quality Standards Agency (TEQSA) to register and de-register providers.

TEQSA became operational as Australia's new national quality assurance agency for the higher education sector since January 2012. TEQSA registers institutions and accredits courses, using the Higher Education Standards Framework as a benchmark once an institution has been recognized, it is registered as such by the Australian Qualifications Framework (AQF). Unlike other higher education institutions, Australian universities have the right to accredit their own courses (Norton 2016).The AQF distinguishes between universities that are self-accrediting, and those that fall under the category of non-self-accrediting higher education institutions. Self-accrediting institutions may develop and provide their own programs, and are themselves responsible for quality assurance. Part of this process is consultation with industry or professional bodies. Courses are usually reviewed for reaccreditation every 5 years. Self-accrediting institutions have to register with TEQSA and meet the requirements to be a self-accrediting institution (Education system Australia, 2015).

TEQSA regulates and assures the quality of Australia's higher education sector, including both public and private elements. "TEQSA registers and evaluates the performance of higher education providers against the Higher Education Standards Framework9 -

specifically, the Threshold Standards, which all providers must meet in order to enter and remain within Australia's higher education system" (TEQSE, 2016). TEQSA is responsible for the registration of new providers, renewal of registration of existing providers, and subsequent course accreditation (TEQSA, 2015b). Higher education providers are monitored through a detailed analysis during the registration process, and via risk indicators subsequently. Every higher education provider, university or college – public or private – is required to be registered, and all face the same legal requirement. Registration is a necessary condition for offering recognised qualifications, and for the institution and enrolled students to access government funds, such as the FEE-HELP loans (Norton, 2014)

The framework was also intended to reduce the regulatory burden on providers and ensure resources were allocated to areas of the higher education system where they were most relevant: "Universities anticipated that TEQSA would focus its regulatory attention on high risk providers and worst case scenarios, such as provider failure. Large cross jurisdictional providers expected efficiency gains from combining eight separate regulatory approaches within a single national framework, whereas for smaller providers TEQSA would help create a more even playing field" (Lee Dow and Braithwaite, 2013).

4.4.4 Funding

The Australian Government is the major funder of higher education. Total funding provided by the Government in 2014 was around $15.4 billion – with grant payments of approximately $10 billion and HELP student loan payments of approximately $5.5 billion (Higher Education Funding in Australia, 2015).

The growth of the private sector has been attributed to the extension of the government's income contingent loans (FEE-HELP) to students at non-university higher education providers (NUHEPs) – including private providers with the passing of the Higher Education Support Act in 2003. These loans only cover tuition fees and do not provide financial assistance with living costs. Ryan (2012) identifies 80 private non-university private providers – 61 per cent of their total number – that have approval to offer FEE-HELP loans, based on TEQSA National Register data available in 2012. Access to financial aid for private sector students has been identified as critical in the expansion of the private HE sector. However, proposed legislation was rejected and ,the demand-driven system still applied only to Schedule A universities which are the public universities (plus the Australian Catholic University, legally private but regulated like a public university.

Most domestic students undertaking higher education are eligible for Government provided incomecontingent loans through the Higher Education Loan Program (HELP) to pay for their tuition fees. Eligible students do not need to pay any tuition fees up front. The type of loan they can access depends on the type of provider they are studying at, and the level of qualification being undertaken (Higher Education Funding in Australia, 2015).

Governance in private providers involves the institution having formal governance structures, overseen by a board composed of internal and external members. The external members are often senior or retired academics, or drawn from the commercial spheres with which the provider is identified (Edwards, Coates and Radloff, 2009 cited in (Hunt, Callender, & Parry, 2016).

Role of Higher Education in the Development and its Functions

Education is at the core of any national agenda for social and economic change.

Higher education plays an important role in the development, the communication of new knowledge and for new applications of knowledge. It is here that the most highly skilled members of the workforce are educated and here too that the intellectual base for new knowledge-intensive industries is formed.

The central place of higher education in modern Australia derives primarily from the traditional functions of universities in western countries. Universities must show evidence of internationally competitive performance against all aspects of the following functions.

- constructing and transferring advanced-level knowledge and skills through teaching and scholarship: to provide for self-fulfillment, personal development and the pursuit of knowledge — as an end in itself; to provide the skills of critical analysis and independent thought to support full — participation in a civil society; to prepare leaders for diverse, global environments; and — to support a highly productive and professional labour force. —
- generating new knowledge and developing new applications of knowledge: by undertaking basic and applied research; — by developing high-level research skills; and — by exchanging and transferring knowledge and its applications with industry — and society.

Through the exercise of these functions and related activities, the higher education system in modern Australia also makes essential contributions to:

- developing and maintaining a just, civil and sustainable society by playing a key role in the development and maintenance of the nation's legal, — economic, cultural and social institutions; by assisting to develop the capacity of Australia to function effectively in the — community of nations and of individual Australians to be global citizens; and by helping develop and maintain regions and communities; and— •building the national economy by assisting to develop the capacity of Australia to function effectively in the — community of nations and of individual Australians to be global citizens; and by helping develop and maintain regions and communities; and—
- building the national economy.

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Exercise

- Hold a mini-seminar with your colleagues about how higher education system of developed countries can be beneficial and useful in making improvements in quality of our higher education system in Pakistan
- Discuss with your colleagues and highlight how educational quality of higher education is defined, improved and assured in Germany and Australia
- Organize a small seminar of five teachers of your region to critically analyze the of specific contribution of higher education in USA, UK, Germany and Australia

Self Assessment Questions

- Compare the higher education system in Pakistan and USA and describe the similarities and differences in their higher education system.
- Describe the mechanism of financing of higher education in USA, UK, Germany and Australia.
- Describe the current status of higher education in USA keeping in view different areas of higher education.
- Comment on the statement "higher education is becoming global system so it should be compatible and consistent."

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Unit–5

HIGHER EDUCATION IN DEVELOPING COUNTRIES

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Introduction

Knowledge is base of change. It brings change economically and socially in societies. Nations developed through education and it helps to promote culture, supports its creation and very important task of its dissemination. Knowledge is prominent quality of human beings because they transmit knowledge to next generation continuously.

Change is beauty of life. Education also encourages innovation and positive change. Today world is witnessing dramatic changes in all fields of life. Higher education is one of those that serves society and plays leading role in economic and social development. So it needs radical development itself in order to respond these changes according to social needs.

Universities are sole institutions for imparting higher education in many countries. But with the passage of time, needs of the society is increasing towards all direction. Students are more diverse and think logically. The students are being attracted to the other fields according to their taste. Higher education institutions are adopting new disciplines in every field to satisfy their students. Most of the developing countries are in phase of reforms relating organization, coordination, specialization and most important element research and development in higher education sector. The role of private higher education institutions is most crucial to meet the educational needs and economic growth of developing countries with public sector.

Higher education institutions are to bring about desirable modifications of intellectual, social and emotional behaviors of students. And prepare them to face the rapid changes of this modern era. These institutions are playing major role to produce all types of professional concerning different fields to serve the country. The desirable features of higher education is to open the new horizon of research for students, to participate of students in decision making ,to achieve excellence in different practical fields like engineering ,agriculture ,medicines, science technology, law and many other fields. These students directly provide services to their country.

Higher education role is very vital and it s critical element of human development all over the world. It provides not only high level skills essential for every labour market but also training essential for teachers, doctors, civil servants, engineers' scientists and other personnel. It is trained individuals, who develop capacity, managing skills that is necessary for locale economics, support civil society and lead effective governance and make important decision which effect entire society.

Higher education is vital importance for country. It is powerful tool to build knowledge based society of 21st century. The resources of the country can be benefitted if you have highly qualified youth. It is need of hour; especially for developing countries that they need qualified, skilled and technical people for healthy development of country ant it is possible only research based initiatives in sector of higher education to meet the demands of this modern and technological era.

Institutions of higher education reflect and create stock of knowledge through research and innovation. It can be said about these institution that they present poor picture of their policies, planning, organization and their structure is still immature. Higher education institutions in developing countries are facing great challenges in terms of financial matters, equal opportunity of education, staff development, quality education, research and out dated curricula. All these created gap between systems of developed and developing countries.

Objectives

After studying this unit, the students will have ability to;

- recognize the role of higher education in various developing countries
- relate the Higher Education with employment situation in developing countries
- identify the impact of social structures on Higher Education
- analyze how the role of higher education is development tool
- describe the role of higher education to enhance socio economic growth of country.

5.1 Higher Education in India

The higher education system in India has based on solid framework .it is on the way of rapid development. The basic aim of present higher education system is to develop intellectual, economic and social value in student. It has very important as it has giving easy access to low-cost high quality education for higher level students.

According to Joshi,(1980) India has a highly dynamic, progressive and appropriate system of education at higher level. Its objective is to create intellectual awareness in the economic and social growth of the country. Work experience and practical training at undergraduate level could bring in a new dimension to Higher Education;

India has been home to the institutions of higher education. At the time of independence, it has twenty universities and five hundred colleges. But it has become the largest higher education system in the world having 42000, institutions of higher education. It has spreading student cantered education system and providing it rapidly to its youth. Student cantered education system is very helpful to increase students enrolments as well as learning outcome.

Indian Higher Education system is third largest system in the world. The university Grant Commission is main governing body to handle the matters of higher education .it is monitor the standard of Education , advises the Government and co-ordinate between the centre and state. Higher Education in India is provided by five groups of institutions, central state, private, deemed universities and institutions of national importance. Accreditation for higher learning is overseen by autonomous institutions established by University Grants Commission.
In India; the labour market has determined student preferences. Legal, medical agricultural, arts, science and commerce education has been preferred at different times. The Govt has done some manpower studies in technical and medical fields and has tried to influence educational trends in some area. There has been lack of balance with labor market and it has led to unemployment. In arts, people trend is strong while government is moving this trend towards science. The state has balance control towards technical and medical studies. According to market demands, it has been observed that students are shifting from engineering to medicines and from science to arts and commerce.

Indian Higher Education particularly plays an important role in realization of Indian potential and aspiration towards economical and technological advancement. It has put great emphases on science and technology in teaching at higher education level. There are large numbers of higher education institutions in India. It has put great emphases on science and technology. Distance and open learning is feature of Indian higher educational system. Distance education council look after the matters of these Institutions. India Gandhi National Open University is the largest university in the world.

Universities in India have evolved divergent streams and it has been monitored by an apex body which is controlling authority by Ministry of Human Resource Development

funded by State Government. Besides these institutions, there are several hundred state universities .there is network of research institutions that provide opportunities for advanced learning up to PhD in branches of science, technology and agriculture. Indian Institute of Science and Technology is renowned institution. There are several thousand colleges that offer undergraduate courses of science, agriculture, commerce and humanities. These provide a Postgraduate course to PhD. The private sector is strong in Indian higher education. It has been providing facility of Indian student to access of higher education at divergent level. Realization of national goals is main objective of Indian Higher Education and it brings cause of progress of country and fulfils the needs of individuals as human beings.

Higher education in India will face the burning issue of rapidly increasing 600 million of people under 25 years old. The system is under tremendous pressure to expand opportunities of higher education to this group. By2020, India will the largest territory – age population. Low quality teaching and learning is another issue. Shortage of faculty for higher education is main cause of low quality.30-40 % of faculty positions are unfilled, absence of employer engagement in course content and skill development, very few opportunities for inter-disciplinary learning. Pedagogies and assessment are focused on rote learning and little opportunity to develop critical thinking, analytical reasoning, problem solving and collaborative working. Separation of research and teaching is very critical issue at higher level.

The overall scenario of Indian higher education does not meet required global quality standard due to insufficient infrastructure and facilities, poor faculty, detoriating research standards, out –dated curriculum, un motivated students, overcrowded class rooms, gender issues and ethnic imbalances. There is inadequate financial support towards the Government for Post Secondary Education.

The central government is taking steps to address these issues. Priority issues include improvements in teaching and learning, and a focus on learning outcomes;

faculty development to improve teaching; increased integration between research and teaching; more international partnerships in teaching as well as research; better links between industry and research to stimulate innovation; and connecting institutions through networks. It is need of hour that Scaling up capacity in existing institutions, rather than creating many new government-funded institutions; enabling discipline diversity, counteracting the skewed growth towards engineering and other technical subjects; enabling flexible and skills-based learning; ensuring a more even spread across the country; alignment to the needs of the economy; and encouraging private investment. Indian higher Education is needed for radical reforms in terms of high standard transparency, strengthen the institutions of higher institutions, curriculum reforms, vocational education, it is needed to give more opportunities for students to explore their passions. Collaborative efforts are needed in broaden students' choice through liberal arts education.

Let us go through the allied material and the books.

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Self Assessment Questions

1. Discuss the role of higher education in economic development of India.
2. Describe the major issues facing higher education in India

5.2 Higher Education in Egypt

Higher Education in Egypt is one of the largest educational systems in Middle East. According to the constitution of Egypt, education is free for all basic up to higher education because state provides huge share of funding and officially State is responsible for financial support for higher education. Higher education of all types including academic, professional and technical education are provided by universities, colleges after completing their secondary education. In present system, there are 17 public universities, 51 non-public universities, 16 private universities and 89 private higher education institutions .Al-Azhar University was set up during Islamic era in Cairo. In 1917 the State University was established and in 1923 it was affiliated with Ministry of Knowledge.

In Egypt, three bodies control and governance of higher education

1. The Ministry of HIGHER Education
2. The Supreme Council of Education
3. Central Administration OF Al Azhar Institutes

The main way for general secondary school leavers to enter a higher education program in Egypt is to perform adequately in the centralized national exam (ThanaweyaAmma). This exam used to be held in the last year of secondary education, and was perceived as a nightmare by students and their families being the only way of admission to higher education. For this purpose many students resorted to private tutoring in order to pass, placing an added financial burden on their families. In order to remove some tension, the government split ThanweyaAmma into two exams spread over the last two years of secondary education — the total grades are considered as the final result with one year validity.

The examination is administered annually by the Ministry of Education. Those students who pass can apply to higher education through a Central Placement Office (CPO) which distributes students based on the following criteria:

1. The maximum number of students that can be accommodated by each higher education institute, which is normally decided by Ministry of higher education and the Supreme Council of Universities (SCU).
2. The rank of the scores of candidates wishing to enter the same higher education programs.
3. The candidates' own list and ranking of higher education institutions he/she wishes to join.

The fact that a single style examination is applied as single criteria ignores other qualities of students. Including other characteristics could improve the validity of the selection process. In the meantime, students who are enrolled in vocational secondary education may also join higher education, but this depends on their results in the final year of their secondary schools. However, a smaller number of places in public HE institutes is available for these students. Some private institutes/universities are more flexible in enrolling these students.

The higher education system is mainly public, enrolling nearly 79.9% of students in the entire higher education system. Of the total, a relatively significant percentage (nearly 15.8%) is enrolled in the new modes which are likely to represent the future expansion of higher education (open education and e-learning).

Ministry of Higher Education has control on higher Education through coordinating and supervising of all Post Secondary Education, planning, policy making and quality control. It also manage teacher training for basic education. The Supreme council of universities is established in 1950, formulates the overall policy of universities and determines the number of students to be admitted in each faculty of every university

National authority for quality assurance and accreditation of education is a newly established government entity involved in external accreditation and in assuring the quality of higher education in Egypt. It was established under a presidential decree in 2006 (Law 82-2006). It works as an independent agency, attached to the Prime Minister, and tries to develop quality assurance (QA) and accreditation standards for various types of education (pre-university, higher, and Al-Azhar education). Its main role in the evaluation and accreditation of higher education institutions is to meet fulfill of criteria within two areas — institutional capacity and educational effectiveness— against a set of standards. These standards allow for the comprehensive self-evaluation of the educational institution. Institutional capacity includes eight criteria:

1. Strategic planning
2. Organizational structure
3. Leadership and governance
4. Credibility and ethics, administrative body
5. Financial and material resources

6. Community service
7. Institutional evaluation.
8. Quality management

Teaching material, in the majority of public universities, faculty members prepare lecture/laboratory notes as the main source of information for students. Text books recommended by course instructors may be available in the faculty library, though there are only a few copies of each. The faculty members in any department responsible for teaching a course are involved in developing the course material and updating it annually. Evaluation of course material is done by external evaluators as part of the quality assurance process. However, a formal internal quality assurance system is yet to be achieved in the majority of public universities.

It is fact that secondary education is not according to market demand as it does not develop necessary skills among students. It seemed that the students who have not able to get admission in institutions of higher education, they cannot earn their living. Therefore enrolling the students is only way to be skilled. The graduates of higher education earn higher income and it will be encouraging situation foe universities of Egypt.

Supreme council of universities defines structure of any program at national level through their specialized committees which consists of eminent professors and experts of different fields .Such committees are responsible for insuring the requirements of any new program that is according to national aims and market needs.

The state admits that it is facing crises in higher education system. It realizes that globalization of trade ,finance, and information flows in intensifying competition and raising the danger that Egypt will fall behind its competitors .it will be recognize towards the Government that there are real challenges to be confronted this sector which are need to improve governance and efficiency, increase institutional autonomy and quality of higher education program.

Some major challenges are facing higher education of Egypt. The curricula of higher in Egypt is rigid, out-dated, rigid and narrow and it is not suitable for market demand, the pedagogy in higher educational institutions is through one-way communication or recitation with poorly equipped facilities, and not able to enhance critical thinking in students. Assessment in higher education institutions is based on memorization and traditional methods which is not successful in promoting high order skills among students. Quality is another issue in higher education institutions. lack of fund is huge hurdle on the way of progress of these institutions. Although it is very difficult to calculate to real contribution of higher education in economic development. But it is not able to compete market demand. It is not providing skilled and qualified youth for country. And it is proved that Egypt higher education could not produce technical and skilled person to meet the economic needs. Brain drain is another danger. Different countries and its higher education institutions have adopted different strategies to compete with global economy. Different departments, research institutes, and laboratories

and information department are strong bodies to attract foreign investors and multi-national companies but it is not taken measures in Egypt. There is no relationship of Employees and higher education institutes about market needs and future needs to open new disciplines. These are burning issues which can be addressed to support the higher education for economic development.

For extensive study, let us see allied material and the references.

5.2	- Arab Republic of EGYPT FOR Higher Education, Enrichment Project March 7, 2002. - World Bank (2002). Arab Republic of Egypt Higher Education Enhancement Project (HEEP) p.41 - Washington D.C. Higher Education in Egypt, Country Review Report.

Self Assessment Questions

1. Relate the role of higher education in employment situation in Egypt, Discuss.

5.3 Higher Education in Malaysia

Higher education is responsible for imparting post secondary education in Malaysia and it is working under Ministry of education. Ministry of Education has been taking several steps to expand education industry for healthy development of country. It is prime goal of Government to make Malaysia a regional centre of excellence in education. The positive posture can be seen in several areas such as increase students' enrolment, public private institutions, spending finance, quality education and additional policies to promote education for substantial growth of higher education.

At the time of independence, there was no university in country. A university in Singapore was set up in 1949, known university of Malaya. It was established as a result of merging of two well known institutions. This institution initially offered faculty arts, science and medicine. In 1959, a campus was established in Kula Alampur. Since the birth of Malaysian Federation in 1963, higher education institutions have been growing in students' enrolment and specialization. The national education system was implemented after Education Act 1966 passed by parliament, in 1989, the National philosophy of Education was released and become a part of Malaysian vision 2020.The Government has recognized role of higher education in nation building in accordance with new challenges in vision 2020,it has making different plan and strategies for higher education for purpose of achieving excellence to meet the needs of global education market. The main purpose of these plans is to make Malaysian higher education institutions exemplary status and work as a hub for higher education in South East Asian region.

Malaysia has various teacher training colleges as well as other public colleges which provide certificate, diploma and pre-university programs. Malaysian universities provide diploma, undergraduate and post-graduate study program. However, at present Malaysia still relies heavily on foreign universities, especially those based in the United Kingdom, United States, Australia and New Zealand, to provide higher education for its students.

Many private colleges offer programs whereby the student does part of the degree course in Malaysia, and the other part of it in the foreign institution. These "twinning programmes" are mainly run with universities based in the United Kingdom, United States, Canada, Australia and New Zealand.

Malaysia has 20 public universities, 32 private universities and 6 foreign university branch campuses; 485 private colleges, 24 polytechnics and 37 public community colleges. There are also various higher educational institutions from the UK, US, Australia, Canada, France, Germany and New Zealand which offer twinning with Malaysian colleges and universities. Four of the 20 public universities in Malaysia have been assigned research university status with additional funding for R&D and commercialization of research.

Teaching and learning is one of the learning strategies included in National Higher Education Strategic Plan (2007- 10).Relevant, dynamic curricula and innovative pedagogy is needed. Student centred teaching, competency based curricula, use of information communication technology in teaching will equip the students with necessary skills to play their role in welfare of country.

The Higher Education Department within the Ministry of Education co-ordinates and monitors the activities of public and private universities and colleges. The Malaysian government has made tremendous efforts to improve the higher education system as a whole in recent decades. Nevertheless, the system faces many challenges including financing and access. There are several issues facing Malaysian higher education financing including its ongoing' corporatizations,' which on the one hand has allowed for public institutions to gain autonomy, but on the other hand treats the university as a business, implying complete financial independence from the state. Because of the government's large investments in higher education, issues of government involvement and university autonomy arise. In particular, the current system is quite restrictive from the viewpoint of the university insofar as the university does not have the power to select its own students, to offer competitive compensation packages to draw the most qualified faculty, or to appoint the most qualified university administration. Currently, students are assigned to specific universities based on their cumulative grade point averages, faculty members are essentially civil servants with highly fixed salaries, and vice chancellors and deans are appointed by the state.

Higher Education in Malaysia has been focused on quality education of higher level institutions to produce such graduates who will fulfill the economic needs of Malaysia. Ministry of higher education has encouraging to establish private colleges and universities .Moreover Government has realized the importance of autonomy of higher institution and giving administrative powers to universities.

Adopting change is very vital for the development of higher education. Traditionally, it has been focused on pursuit of knowledge and discovery. The attainment of knowledge

through research and development is major element of higher education and through this way, rapid progress can be achieved and higher education in Malaysia is trying to move with modern changes of world. It is beauty OF Malaysian higher education system.

The Ministry of higher education is taking secured measures to improve the efficiency and accessibility of higher education institutions. Universities in Malaysia offers different programs of studies which are formal and academic oriented and producing graduates thinkers and theoretical strong. The country has to need such type of post secondary education, which will produce skilled, technical hands and professional graduates for development of country. It is need to invest higher education relating technical education.

For further study read allied material and following references.

5.3	- Current trends in Malaysian Higher education and the Effect on Education policy and Practice; An overview. - World Bank. (2007). Malaysia and the Knowledge Economy: Building a World-Class Higher Education System. Human Development Sector Reports, East Asia and the Pacific Region, Washington, DC: World Bank. -Brock, C. (2012). Perspectives on the contributions of higher education to education as a humanitarian response. Journal of International and Comparative Education 2012, 191):13-22.

Self Assessment Questions

1. Critically analyze the higher education system in Malaysia.
2. Is Malaysia fast developing country. This is due to higher education, discuss?

5.4 Higher Education in Thailand

Higher education is considered as highest level of education. It is centre of knowledge. Higher education institutions play key role to take develop high level technology for economic growth and development, academic service to society and preserve the culture of nation. The history of higher education in Thailand is one hundred years ago, when country is facing dramatic changes. The primary purpose of higher education is to produce intellectual and capable people with modern knowledge. Thailand adopted higher education philosophy and system from Western nations but in reality king vajivauvt, Who set up first university of Thailand to provide the opportunities of higher education to youth. It is Chalalongkorn University, established in1917; Thammast University established in 1933 and three more were founded in 1943.all these five universities were established in Bangkok.

Thailand Higher educating system was expanded innovative and technical disciplines. Many professional institutes have been established to making progress in the world. These institutions are technical colleges, teacher training colleges and nursing institutes. These institutes played a strong role to economic development of Thailand .Because all the development is based on producing on highly qualified and skilled people which provide higher education institutes.

The commission on Higher Education is responsible for higher education .it is worked by the supervision of board. According to article 16 of Ministry of Education Regulatory Act, the Board has authority to formulate higher education policies and development plans. It sets standards for allocation of resources and then follows up these activities by monitoring and evaluation of higher education. It evaluates the management of higher institutions on the bases of their academic performance and excellence of each higher institution that issue the degrees.

Commission on Higher Education has authority to control, manage and to take steps for promotion higher education in terms of degree granting institution and academic performance and freedom. It has to take following steps for higher education.

1. Formulation of policies about standards and planning of higher education.
2. Coordination of human resource development for purpose of building student capacity of higher education
3. Recommendation about establishment and up gradation of higher education institutions.
4. Monitoring and evaluation of higher education institutions

Thailand Higher Education Development Plan has been formulated and integrated into successive five year plan to encourage the educational to economic and social and cultural goals of national development. The commission of higher education has developed Thailand's long range plan (2002-2014) for the development of higher education. Internationalization of higher education has been focused in it.
Higher Education commission has major role on quality assurance systems within public and private institutions by providing policy guidelines, support of knowledge based activities and implementing international projects. National Education standard of Quality Assessment conducted external quality assurance. In order to play reading role in developing countries, commission for Higher Education has given guideline and support to enhance the quality of instruction and programs and capacity building of staff, and provide facilities in Thai higher education institutions.

Thailand's national policy emphasized the human capacity and human resource development to cope with rapid changes associated with globalization in order to strengthen national competitiveness in a global economy. Internationalization of higher education was used as a key competitive strategy to modernize and to achieve internationally recognized standards for education. Since the crisis, Thailand has focused on the development of its human potential and creativity and enhancing the capability of communities, societies and the nation as a whole. The underlying principle of the autonomous university is to support each university to have heightened flexibility and administrative independence in its internal affairs, giving authority and responsibility to each university council who will be held accountable. The councils have to be responsible for the formulating rules and regulations to administer respective universities on academic affairs, personnel administration, and budget and asset management.

Thai higher education institutions are now facing both internal and external challenges in responding to academic, professional and ethical needs of both local and international stakeholders. Internationalizing higher education is seen as a key element and an important investment to foster development and exchange in the knowledge-based society and global economy. Key stakeholders such as governments, universities, faculties, students, industries, communities and general public should be included in this process in order to achieve their mission and to maintain social responsibilities. Major problems are being discussed as under:

1. It is emphasized on memorization in teaching and learning in higher education institutions and it is not relate to real life situation, market demand and development policy of country.
2. The measures for allocation and utilization of resources for higher education institutions are not sufficient to develop and academic excellence.
3. The access of students in Thailand is very low as compared to other countries.
4. There is mismatching of graduates profiles and market demands.
5. Thai higher educational institutions have produced few numbers of innovators because there is not enough system to encourage faculty staff to conduct quality research.
6. There is not yet any effective mechanism in evaluating and monitoring the performance of higher level institutions to see their relevance to country's development policy and plan.

In short, Higher education is making progress rapidly in developing countries. And it has strengthened their institution by reforming them. There is growing demands to increase numbers of higher education institutions to provide the opportunities of students for well education in higher level institutions. It is need of hour to make the institutions research oriented. Teaching style in higher education institutions need to make effective. The Ministry of Education Strategic Plan prepared long term plan on the betterment of Higher Education (2008-2022).it will take these initiatives

1. Capacity Building Of Higher Institutions
2. Enhance Higher Education and country competitiveness.
3. Raise awareness of internationalization and regionalization
4. Promote Bilingual education
5. Increase more international students

For further study, read allied material and following references

5.4.	- Comparative Higher Education System between Thailand and Japan; The 8th international Academic conference 2016. - Thailand- Higher education. - The Higher Education Task Force Office of the National Education Commission A Strategic Proposal and Guideline for Higher Education Reform of Thailand: A proposal submitted to the Cabinet, June 2003.

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Self-Assessment Questions.

1. Is Thailand higher education fast developing in developing countries? Sport your answer with solid arguments.

Summary

Higher education is very important in the progress of any country. The role of higher education in developing countries has very valuable. It is being recognized in the prosperity of country. Higher education can be very effective, especially in improving the developing countries. Higher education is laying major role for improving economic performance, promoting civil laws and increasing social integration. Developing countries are facing great challenges to meet increasing demand for higher education and to develop their institutions of higher education in order to pace with developed nations of the world. Although institutions of higher learning are developing at rapid pace in recent years but their structure are pre mature. Higher education in these countries is facing with great challenges relating to financing, equitable accessibility of education, staff development, skill-based training programs, research and development and outdated curriculum.

Reforms are necessary to improve the existing system of developing countries. The basic weakness of the system of higher education of these countries should be addressed and eradicate them quickly to know the sensitivity. It is necessary for developing countries to prepare plans educational development as well as technological and professional development. It is reality that these countries are taking immediate steps for improving the present system of higher education in research, accreditation, improving the present infrastructure of these institutions, quality enhancement, staff development, technological advancement and curriculum reforms.

The role of state is very important to promote higher education. Policies are made to support the higher education. If state is not interested in taking steps, then the result was disastrous. Lack of funds allocated to higher education led to huge deterioration of higher education institutions which affected directly students, teachers, facilities, programs and even administration.

Self-assessment Questions/ Activities

1. Organize a panel discussion on the problems of higher education in developing countries. Make a list of major problems which is facing higher education of these countries.
2. Hold a mini seminar with your colleagues about how higher education system of developing countries can be improve and beneficial for these countries.
3. Prepare the comparative list of the issues and challenges of higher education of the India and Egypt. Which country is improving relating to higher education?
4. Discuss with your colleagues and highlight how higher education prominent role in the economic development of country. Compare the weaknesses and strengths of higher education system of Malaysia and Thailand.

5. Describe the role of higher education in socio-economic development of country. How it can affects the development of country?
6. What are the issues that are common to India and Pakistan in higher education? How India is overcoming it? Can our issue be dealt in same way?
7. Critically analyze the higher education system of Egypt. And discuss it is improving or not?
8. Which steps are being taken to improve the higher education system of Malaysia?
9. What aspects of higher education of Thailand are necessary to improve?
10. Compare and contrast the problems, issues and challenges of higher education of developing and developed countries? Which measures are taken to enhance the quality of higher education system of developing countries?

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Unit–6

ECONOMICS OF HIGHER EDUCATION

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Introduction

Higher Education System requires considerable investment both at individual and societal level. As a result economics of higher education is always a phenomenon attracting debates and deliberations. In this unit on one hand we will learn about different modes of financing higher education and on the other hand we will discuss reasons of investment in education particularly in higher education. This unit will also help you to understand the concept and ways of wastage in higher education and how it can be minimized to ensure efficiency of the system. In order to check and ensure efficiency of a system, cost effectiveness analysis is one of the best mechanisms to be applied. You will be exposed to the concept of cost effectiveness analysis

Objectives

After studying this unit, learner will be able to:

- give the reasons of investment in the education
- discuss wastage in higher education
- define Cost effective analysis and its implication in education setting
- analyze different modes of financing higher education

6.1 Investment in the University

This is very common understanding that an investment in the university is the investment in the future. Scope of any university degree is always considered because it actually tells the ratio of investment of any university subject in future.

So, whenever a person is interested in university education, parents/financers think ahead that how much profitable it will be and what will they get in return after completion of university degree. Another thoughtful question is that: Should you invest in equities, bonds or property – or a college/university education?

Comparing a university degree with an investment in stocks and bonds leaves out great unquantifiable benefits of higher education, but the return on such an expensive outlay is a vital consideration for parents, children and society at large, even if it is often felt instinctively rather than spelt out or calculated.

A college degree may well pay off handsomely for the average student, but no one is average. An engineering student at an Ivy League school is a different proposition to an art major from a lesser-known college, and even taking one extra year to finish one's degree can wreck the return on investment.

Human capital can be seen as a nation's most critical capacity. An educated populace has the skills to develop and sustain meaningful change. Yet the present reality for many students in developing countries is that education, especially higher education, is out of reach due to financial barriers. In Africa, only 5 percent of young people attend university. While scholarships and financial aid support a handful of students, they are not sufficient to meet the level of need. Furthermore, students are typically ineligible for traditional bank loans, since banks evaluate students based on collateral and credit ratings.

Activity:

Visit university and discuss the scope of university degree with the students of different departments.

6.2 Wastage in Higher Education

Educational wastage exists in the following forms:

a) Failure of the system to provide a universal education;
b) Failure to recruit children into the system;
c) Failure to hold children within the system;
d) Failure of the system to set appropriate objectives; and
e) Inefficiency in the achievement of such objectives

There are different reasons that children and adolescents of developing countries either do not go to school or leave early. Some of them are as under:

1. There are no schools to go to, or that there are not enough places in them.
2. The cost of attending school during periods of manpower shortage may be a determining factor, particularly in agricultural areas.
3. Marriage customs may encourage early marriage and childbirth.
4. Grave illness is also an important factor.
5. Many children leave school early because they, or their parents, do not find what is taught at school relevant to their needs in future employment.
6. Others leave because they are needed as helpers at home or on the farm.
7. Finally, many parents feel that it is more important for their children to receive traditional education and training on the job rather than spend their time in classroom.

A major aspect of educational wastage occurs when students leave the educational system prior to the termination of an educational cycle. Dropping-out in this sense is not related to the existence or duration of compulsory schooling and therefore leaving school before the minimum age is not regarded as dropping out. However, those who leave before the end of a cycle, but who have satisfied the compulsory education laws by staying at school until they have reached the minimum age, would be regarded as dropouts; and in countries which do not have compulsory education, a child who left school before completion of the stage in which he had registered would be regarded as a dropout.

A major aspect of educational wastage is the repetition by a student of a year of work in the same class or grade and doing the same work as in the previous year. This may occur at any level, from elementary to university.

Wastage in higher education is considered in terms of the magnitude of expenditure on education, which remains ill spent due to non-utilization, or improper utilization of education.

Wastage in higher education is of two kinds. **First**, wastage for the course due to stagnation and dropout. Students who complete the course after some years of failures contribute to the wastage due to stagnation. And students who drop out of the course without completing it give rise to the wastage. **Secondly**, there is wastage due to the non-utilization of training. The students, who after completing the course either do not utilize the training knowledge or are not able to utilize the training due to lack of opportunities, give rise to the second kind of wastage.

Economic rationality demands expansion of the vocational and job-oriented system both at the school level and at the post school level, instead of graduate level general education. The policy of reducing public subsidy in higher education itself may not solve the problem of a lower rate of enrolment in higher education, an increasing number of educated unemployed, stagnation and dropout as well as wastage in higher education. It seems that instead of reduction of public expenditure in higher education, the government

policy requires reorganization of the educational structure in a way so as to create more scope for technical education in place of expanding simple bachelor level general education. There appears to have been a lack of consistency between the pattern of education that is available and the pattern of education that is demanded by the process of economic development. While the system can be made more efficient by cost reducing adjustment, remolding the pattern of education and redistributing student enrolment away from higher cost fields where the number of educated is already more than sufficient to meet any likely demand, can also do this. This would not restrict the scope of higher education either for men or women if it is accompanied by creation of new streams of education, in those fields where supply of educated personnel is less than demanded by society. For example, after men and women acquire a certain level of school education, they can be provided with the scope for education in primary medicine and primary healthcare, primary nursing, elementary training in handicrafts including agricultural practices and different other fields. Such education can create greater scope for self-employment and at the same time would create scope for supply of some services like primary health and basic education, which are so scarce and in demand in our society.

6.3 Cost-Effectiveness Analysis

Cost-effectiveness analysis was developed in the 1950s by the United States Department of Defense as a device for adjudicating among the demands of the various branches of the armed services for increasingly costly weapons systems with different levels of performance and overlapping missions (Hitch and McKean 1960). By the 1960s it had become widely used as a tool for analyzing the efficiency of alternative government programs outside of the military, although its applications to educational decisions have been much slower to develop. Indeed, in the early 1990s the use of the tool in considering educational resource allocation is restricted largely to the United States and has not emerged as a decision approach to resource allocation in other countries.

Cost-effectiveness analysis is an evaluation tool that is designed to assist in choosing among alternative courses of action or policies when resources are limited. Most educational decisions face constraints in the availability of budgetary and other resources. Therefore, limiting evaluation to the educational consequences of alternatives, alone, without considering their costs provides an inadequate basis for decision-making. Some alternatives may be more costly than others for the same results, meaning that society must sacrifice more resources to obtain a given end. It is desirable to choose those alternatives that are least costly for reaching a particular objective or that have the largest impact per unit of cost. This is intuitively obvious because the most cost-effective solution will free up resources for other uses or allow a greater impact for any given investment in comparison to a less cost-effective solution.

Applying this to educational interventions, there are a host of options from which schools, school districts, and higher education institutions can choose to improve educational outcomes. Many have shown at least some evidence of effectiveness, although the standards of evidence vary considerably. Thus, at the very least, consistent

standards of evidence are needed to compare the competing alternatives. But estimates of the costs of the alternatives are needed as well. Even if one alternative is 10 percent more effective than another, it will not be preferred if it is twice as costly. Thus, both costs and effectiveness must be known in order to make good public policy choices.

The concept of costs that is used in cost-effectiveness studies is one that is drawn from economics, namely, opportunity cost. When a resource is used for one purpose, individuals or society lose the opportunity to use that resource in some alternative use. In general, the concept of opportunity cost is viewed as the value of a resource in its best alternative use. This may differ from the everyday understanding of what a cost is. For example, many school districts will refer to an unused facility as having no cost to the district if it is used for a new program. That facility, however, has value in alternative use in the sense that it could be sold or leased in the market or used for other purposes that have value. In this sense it is not "free." If the school district uses it for a new program, it sacrifices the potential income that the facility could yield in the marketplace or the value to other programs that could use the facility.

There is a standard methodology for measuring the cost of an intervention in cost-effectiveness analysis. The ingredients required to replicate the interventions are specified for all alternatives. Most interventions require personnel, facilities, materials, equipment, and other inputs such as client time. Using these categories as organizing rubrics, the ingredients are listed in terms of both quality and quantity such as, for the personnel category, the number of full-time teachers and their qualifications as well as other staff. Information on ingredients is collected through interviews, reports, and direct observations.

Examples

The application of cost-effectiveness analysis can best be understood by providing examples of its use. In a 1984 study, Bill Quinn, Adrian Van Mondfrans, and Blaine R. Worthen examined the cost-effectiveness of two different mathematics curricula. One approach was based upon a traditional, textbook application. The other was a locally developed curriculum that emphasized highly individualized instruction with special methods for teaching mathematics concepts. With respect to effectiveness, the latter curriculum was found to be more effective in terms of mathematics achievement, on average, than the traditional program. It was also learned that the lower the socioeconomic status (SES) of the student, the greater were the achievement advantages of the innovative program.

But the innovative program had a cost that was about 50 percent higher per student than the traditional one. The question is whether the additional achievement justified the higher cost. The evaluators found that the cost per raw score point on the Iowa Tests of Basic Skills was about 15 percent less for the innovative program than for the traditional one, showing that the higher achievement more than compensated for the higher cost. For low SES students the cost per point of the innovative program was less than 40 percent that of the traditional program. For high SES students, however, the traditional program

was slightly more cost-effective. This study demonstrates the value of cost-effectiveness and its usefulness as an evaluation technique among different types of students. In a low SES school or district the innovative program was far superior in terms of its cost-effectiveness. In a high SES school or district, the traditional program might be preferred on cost-effectiveness grounds.

Cost effectiveness refers to the consideration of decision alternatives in which both their costs and consequences are taken into account in a systematic way. It is a decision oriented tool, in that it is designed to ascertain which means of attaining particular educational goals are most efficient. For example, there are many alternative approaches for pursuing such goals as raising reading or mathematics (p-381) achievement. These include the adoption of new materials or curriculum, teacher training, educational television, computer-assisted instruction, smaller class sizes, and so on. The cost effective solution to this challenge is to ascertain the costs and effects on reading or mathematics achievement of each alternative and to choose that alternative which has the greatest impact on raising achievement scores for any given resource outlay. Cost-effectiveness analysis is closely related to cost-benefit analysis in that both represent economic evaluations of alternative resource use and measure costs in the same way. However, cost-benefit analysis is used to address only those types of alternatives where the outcomes can be measured in terms of their monetary values. For example, educational alternatives that are designed to raise productivity and- income, such as vocational education, have outcomes that can be assessed in monetary terms and can be evaluated according to cost-benefit analysis. However, most educational alternatives are dedicated to improving achievement or some other educational outcome that cannot be easily converted into monetary terms. In these cases, one must limit the comparison of alternatives to those that have similar goals by comparing them through cost-effectiveness analysis. The purpose of cost-effectiveness analysis in education is to ascertain which program or combination of programs can achieve particular objectives at the lowest cost. The underlying assumption is that different alternatives are associated with different costs and different educational results. By choosing those with the least cost for a given outcome, society can use its resources more effectively. Those resources that are saved through using more cost effective approaches can be devoted to expanding programs or to other important educational and social endeavors.

Activity:

How cost effectiveness analysis is done and what is its significance in perspective of educational programs.

6.3.1 Assessing Effectiveness

Before starting the cost analysis, it is necessary to know:

1. what the decision problem is,
2. how to measure effectiveness,
3. which alternatives are being considered and
4. what their effects are.

If a problem has raised on the policy agenda that requires a response, a careful understanding of the problem is crucial to addressing its solution (Levin 1983 pp. 34-35). Once the problem has been formulated, it will be necessary to consider how to assess the effectiveness of alternatives. For this purpose, there will be need of clear dimensions and measures of effectiveness. Table I shows examples of effectiveness measures that respond to particular program objectives. Given the problem and criteria for assessing the effectiveness of proposed solutions, it is necessary to formulate alternative programs or interventions, The search for such interventions should be as wide-ranging and creative as possible. This procedure sets the stage for the evaluation of effectiveness of the alternatives, a process which is akin to the standard use of evaluation methods (e.g., Rossi and Freeman 1985). Estimates of effectiveness can be derived from previous evaluations or from tailored evaluations for the present purpose. It is important to emphasize that the evaluation of effectiveness is separable from the evaluation of costs. Most standard evaluation designs for assessing the effectiveness of an intervention are also suitable for incorporation into cost-effectiveness studies. The cost analysis is not typically found in the general evaluation literature and has been developed independently as a sub specialization (Levin 1983).

Example of Effectiveness Measures:

Program objective	Measure of effectiveness
Program completions	Number of students completing program
Reducing dropouts	Number of potential dropouts who graduate
Employment of graduates	Number of graduates placed in appropriate jobs
Student learning	Test scores in appropriate domains utilizing appropriate test instruments
Student satisfaction	Student assessment of program on appropriate instrument to measure satisfaction
Physical performance	Evaluation of student physical condition and physical skills
College placement	Number of students placed in colleges of particular types
Advance college placement	Number of courses and units received by students in advance placement, by subject

6.3.2 Cost Estimation

The costs of an intervention are defined as the value of the resources that are given up by society to effect the intervention. These are referred to as the ingredients of the intervention, and it is the social value of those ingredients that constitute its overall cost. At a later stage the distribution of these costs among the decision-making agency and other entities can be assessed. Accordingly, the method sets out systematically to identify and ascertain the value of the ingredients that are required for each alternative that is under consideration.

6.3.3 Combining into Cost-effectiveness

Once each of the ingredients is these can be added to obtain a total cost for the intervention. The next stage entails the use of these costs in an analytic framework.

The two most important concerns for cost summary and analysis are:

(a) The appropriate unit for expressing costs

The question of the appropriate unit for expressing costs depends upon how effectiveness is measured and the nature of the decision. Usually, educational effectiveness is measured in terms of achievement gains per student or some other per student measure. In that case, it is necessary to convert total costs to a per-student cost figure for comparing cost effectiveness of alternative interventions. Cost-effectiveness ratios are usually based upon the average effects and costs per student. However, it is possible to do an analysis on total project or program costs and effects. In other cases it may be the additional or marginal costs versus additional or marginal effectiveness that is the subject of scrutiny. For example, one may want to ascertain the number of additional students who will graduate from high school relative to the additional costs of alternative approaches for reducing dropouts.

(b) Who Pays the Costs?

The overall cost-effectiveness ratio may be irrelevant to a decision-maker who pays only part of the costs for one intervention, but all of the costs for an alternative. For this reason, it is important to ascertain total costs of an intervention and to separate out those that are home by the decision-maker in considering different alternatives. However, it should be remembered that since different decision-making units have different opportunities to obtain volunteers and contributed resources, it is inappropriate to assume any particular cost subsidy to the decision-maker. The basic estimate of costs that is used for all subsequent cost-analyses is the overall cost of the intervention. Subsequent analyses can distribute the costs among those who will bear them to ascertain the implication of that distribution for decisions. The most common measure of cost-effectiveness is the cost-effectiveness ratio, namely, the effectiveness of an alternative divided by its cost. When this is done for each alternative, it is possible to see which of the alternatives yields the best outcomes per unit of cost. For example, one might wish to examine different alternatives for raising student achievement by comparing the cost per additional achievement gains. In principle, the alternative with the lowest cost per achievement gain would be the most desirable. However, it is important to know if differences in cost-effectiveness ratios are large or small. If the differences are small, it is probably wise to weigh more fully other criteria in making the decision such as the ease of implementation or previous experience of staff. If the differences in cost-effectiveness are large, it is important to place greater weight on the cost-effectiveness criteria while still considering other factors that were not considered in the analysis. Finally, it is important to mention the issue of scale, In general, those alternatives with high fixed costs such as those with large investments in facilities and equipment will require a high enrollment or utilization

to reach their best cost-effectiveness ratios. The reason for this is that fixed costs represented by a building or an educational television network of transmitters and receiving stations cannot be readily adjusted to demand and must be fully utilized to obtain the lowest level of cost per unit of output. In contrast, alternatives that are constituted largely of variable costs such as personnel will have costs that are less sensitive to the scale of output. Variable costs are derived from inputs or ingredients that can be readily increased or decreased. Thus, a comparison of cost-effectiveness of alternatives that differ in terms of their intensities of fixed versus variable costs may produce very different results depending upon the scale of enrollment or output. Accordingly, estimates should be made among the alternatives for the specific levels of output that are pertinent rather than assuming a general pattern from cost estimation at only one level of scale.

6.3.4 Educational Applications

Cost-effectiveness studies have been carried out on teacher training (Tatto et al. 1991), teacher selection (Levin 1970), educational television and radio (Jamison et al. 1978), choice of a mathematics curriculum (Quinn et al. 1984), computer-assisted instruction (Levin et al. 1987) and also increasing the school day, reducing class size, and cross-age tutoring (Levin et al. 1987). Lockheed and Hanushek (1988) have provided a good summary of cost-effectiveness studies of educational radio and of textbook provision for several countries. Their comparisons among studies and interventions should be viewed cautiously given that the studies were done independently for different years (with no standardization for changes in price levels or exchange rates) and are not necessarily based upon the same cost methodology.

1. **Educational Television** The 1970s witnessed a great interest in educational television as a way of improving educational quality in developing countries, as well as expanding their educational systems (Mayo et al. 1975, Jamison et al. 1978). In many developing, societies adequate numbers of trained teachers are unavailable-particularly in rural areas-or populations are so sparsely distributed that there are not adequate numbers of students in school attendance boundaries to justify minimum personnel requirements. Educational television has been viewed as an alternative for delivering instruction that might be less costly and that also might raise the quality of education. Studies were undertaken of educational television ' as a partial replacement for teachers in rural areas where examination test scores were used as a basis for effectiveness. Such studies found that the television was relatively cost-effective in comparison with traditional schools in that it produced comparable student achievement at lower cost (Mayo et al. 1975). However, these results depended heavily on certain assumptions which were highly controversial, illustrating the fact that cost-effectiveness comparisons must be reviewed carefully before using them for decision-making (Carnoy and Levin 1975).
2. **Curriculum:** Curriculum is an area that is very appropriate for cost-effectiveness analysis. In the quest for educational improvement, schools face numerous ways in which they can organize the pace, content, and method of instruction. Some are

likely to be more effective than others, and there may also be substantial differences in resource requirements with respect to such ingredients as teacher time, materials, equipment, and so on. As with many other areas of education, the potential for using cost-effectiveness analysis has barely been tapped in the curriculum field. An excellent cost-effectiveness study of fifth grade mathematics curriculum was carried out by Quinn et al. (1984). Their evaluation compared two approaches to teaching mathematics, a traditional curriculum and an alternative one. Using the ingredients method, the researchers found that the alternative mathematics program cost about 50 percent more than the traditional mathematics program, but the effectiveness of the alternative program was also higher. Depending upon how student achievement was measured, the alternative mathematics program was found to be from 60 percent to 300 percent more cost-effective -- cost per point of achievement score -- than the traditional program.

3. **Teacher Training:** A study of teacher training in Sri Lanka compared the cost-effectiveness of training in colleges of education and in teachers' colleges as well as through distance education (Tatto et al. 1991). Teacher performance and pupil achievement were used as measures of effectiveness. Teachers who had received distance education were almost as effective as those trained in colleges of education and teachers' college, but the costs of their training were a small fraction of the costs of institutional training. In a country that has a shortage of teachers, it appears that expansion of qualified teachers could be done more efficiently using distance education.

Activity:

Arrange a visit of a school and request the responsible person over there to explain process of cost affective analysis in school with the proof of last your analysis.

6.4 Financing Higher Education

The way in which education is financed will affect the scale and type of educational provisions, the composition of the student body, the style of governance of educational institutions, the range , level and type of curricula offered and, indeed, the very quality of teaching and research in higher education. In other words, whatever objectives educational decision making are pursuing, the way that education is finance will have implications for their attainment.

There are different methods of financing higher education:

1. Institution-based funding

The controls that are attached to the funds provided to institutions in higher education may well affect the efficiency with which education is provided. We shall briefly explore two such controls.

First Implications of allowing virement when awarding grants to institutions,

Second, implications of awarding moneys to institutions in the form of fee rather than recurrent grants.

The virement is allowed, institutions are able to switch the use of funds from one activity to another. So, for example, if a university receives a grant based in part on a given amount of spending on science education, and then finds for some reason that it does not need the money in science, or decided that some other activity has a higher propriety, it will be free to switch its spending to this other activity. For convenience, we shall assume total virement in this analysis, although in the real world of educational finance it is more likely that virement will be allowed in certain areas of spending but not in others.

Virement will have implications for both production and exchange efficiency. Production efficiency is concerned with maximizing output at least cost, we have to ask how virement might affect its achievement.

Exchange efficiency is concerned with the matching of educational outputs with society's demands, however established, we have to ask whether this is likely to occur when institutions are free to vary their spending and therefore their outputs in accordance with their own individual interests.

As for as implications of awarding money to institutions in the form of fee income rather than a recurrent grants, the implications of efficiency are less clear cut. Universities are forced to recognize that they are in the business of recruiting students. The likely result, unless there is shortage of university places, is that competition will develop between universities in which special facilities, new courses, special inducement and so non are offered to students in the UK as a result of the Conservative Government's introducing "full-cost" fees for overseas students in 1980.It is very likely in such a situation that the amount and quality of research will fall. Whether the amount and quality of teaching will fall.

2. Loans

In many countries throughout the world, in Scandinavia and North America in particular. Loans scheme have been introduced to finance students in higher education. In other countries, such as Pakistan and the UK, there are proposals to introduce loans schemes for students in higher education. In other countries, such as Pakistan and the UK, there are proposals to introduce loans schemes for students in higher education. These proposals have given rise to heated debate in which both the advocates and opponents of the scheme have employed efficiency and equity arguments to support their case. Economics analysis can help to clarify the arguments and thus to assist educational planners in reaching a decision about the merits and demerits of introducing a loans scheme.

If the costs of administering the loans scheme are exorbitant when compared to the benefits, the introduction of the scheme cannot be justified. On the grounds that it reduces

public spending. If the costs of collection are high (for example, because of default by students) in relation to the returns, one of the basic canons of taxation developed by Adam Smith will be offended. This canon states that no government should introduce a tax whose collection will cost more that the revenue it raises. This canon seems equally applicable to loans. If offended, some other justification for a loans scheme is required. Another effect of loan scheme is on student's motivation. If students are informed beforehand that they are going to have to repay at least part of the costs of going to university, it is argued that they will think much more carefully about whether it is worth their while to attend university and they will also take more pains to choose the courses they take up. It is further argued that, once enrolled, they will work more conscientiously in order to achieve a high grade. In short, a loans scheme produces educational output of a higher quality. Alternatively, it has been argued that a loans scheme will reduce the quantity of output: it will discourage certain well-qualified students from entering higher education. The two most commonly cited of these groups are women, who would be worried about meeting repayments if they had to leave paid employment to have children, and the children of lower income families who, having short time graduation. These are questions of equity rather than efficiency, however because the discouraged students have voluntarily elected to refuse higher education if available at the "price" implied by the loan and its repayments.

The introduction of any loans scheme is bound to affect the way that universities are run. Proponents of a loan scheme maintain that the universities will be forced to respond to consumer (student) choice and that this will lead to "exchange efficiency" in so far as they will try to minimize their costs per students. This latter effect will result only if students have o pay part of the institutional costs of universities. And, although this may be desirable to encourage production efficiency, it may be inefficient in so far as it will increase the size of loan. Increasing the amount that has to be repaid may discourage able students from entering universities.

The introduction of a loan scheme will affect the number of students enrolling. The precise effect will depend on the type of loans scheme introduced. Where previously there was no way in which students could receive financial support, the introduction of loans will almost certainly increase enrolments. However, if the loans scheme was replacing a very generous student grants scheme the reverse effect would result.

Assessment Questions:

Q.1 What do you understand by Investment in Universities?
Q.2 What are different methods of financing higher education? Explain with the help of examples.
Q.3 What is the relation between cost effective analysis and education? Explain.
Q.4 Enlist reasons of wastage in higher education.

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Unit–7

ASSESSMENT IN HIGHER EDUCATION

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Introduction

Education and training continue to move away from the use of human mind as a store for information towards using the mind for sorting; synthesizing, discriminating and applying information which is already stored elsewhere (long term memory). There is a continued movement away from assessing, which is based on examination take on the particular day to classify order and rank of people towards assessing which looks for competency and professional achievement over a period of time. The onus of leaning is being shifted from the teacher to the learner. The roles of teachers and learners are rapidly changing. The teacher is seen as a manager and organizer of learning rather than a presenter of knowledge.

Assessment is a key and controversial issue in higher education. It is often viewed as a tiresome extra burden for tutors; a harmful means of molding students and an interruption to worthwhile learning. But there are more standards being maintained in higher education. Property used, assessment techniques can be positive tools to support ambitious curriculum aims and to foster deeper learning and understanding.

In this unit, we discuss the practices of assessment and extended sections on types of assessments, teachers' roles, and added a new section as current education policy regarding entry test in higher education.

Objectives

After reading this unit, the students will be able to:

- specify critical issues in assessment
- describe the examination system of Pakistan and highlight objectives and reforms in this system
- recommend reform to improve examination system of Pakistan
- explain the role of teacher in assessment.
- explain the role of learner in assessment.
- analyze importance and types of entrance tests in Pakistan.

7.1 The Assessment

Assessment is formally defined as a measure of performance (Gagne et. al., 2005). Educational assessment is the process of documenting, usually in measurable terms, knowledge, skills, attitudes and beliefs. Assessment is a mechanism for providing instructors with data for improving their teaching methods and for guiding and motivating students to be actively involved in their own learning.

As such, assessment provides important feedback to both instructors and students. Assessment gives us essential information about what our students are learning and about the extent to which we are meeting our teaching goals. But the true power of assessment comes in using it to give feedback to students. Improving the quality of learning in a course involves not just determining to what extent students have mastered course content at the end of the course; also involves determining to what extent students are mastering content throughout the course.

Thus, in addition to providing the instructors with valuable information about our students' learning, assessment should assist the students in diagnosing their own learning. That is, assessment should help students become more effective, self-assessing, self-directed learners. Assessment is the process of gathering data. More specifically, assessment is the ways instructors gather data about their teaching and their students' learning (Hanna & Dettmer, 2004). The data provide a picture of a range of activities using different forms of assessment such as: pre-tests, observations, and examinations.

There is considerable evidence showing that assessment drives student learning. More than anything else, our assessment tools tell students what we consider to be important. They will learn what we guide them to learn through our assessments. Traditional testing methods have been limited measures of student learning, and equally important, of limited value for guiding student learning. These methods are often inconsistent with the increasing emphasis being placed on the ability of students to think analytically, to understand and communicate at both detailed and "big picture" levels, and to acquire life-long skills that permit continuous adaptation to workplaces that are in constant flux. Moreover, because assessment is in many respects the glue that links the components of a course - its content, instructional methods, and skills development - changes in the structure of a course require coordinated changes in assessment

Reasons for Assessing

Many different purposes underlie assessment, which in practice overlap. The purposes of assessment are:

- Selection
- Certification
- Describing
- Aiding learning
- Improving teaching.

Detail is given below.

- **Selection**
  Assessment helps in selection, for example when choosing students for a further course or for employment. Assessment in this context is used for prediction, for instance which students will be able to benefit from further study or how the individuals might perform in employment. Selection can help the learner make a choice about his career. Selection has historically been linked to the ranking of students and, thus, as presented in a later section, with "norm referenced assessment". Assessment in this form has been a means of positioning students in order of merit or achievement.
- **Certification**
  Certification indicates conforming that a student has reached a particular standard. This may be in the form of simple "pass" or "fail" (as the driving test) or "competent" or 'not yet competent". Assessment in these and similar circumstances certifies that a particular level of performance has been achieved.
- **Describing**
  Sometimes the outcome of assessment is a simple statement – a certificate, grade, mark. There is move, in recent times, towards describing what a student has learned or can do in greater detail. This can be done in the form of a profile.
- **Aiding Learning**
  Assessment can be used for learning, serving a very important purpose. Assessment can stimulate learning in many different ways:
  i. Prompting or otherwise motivating students
  ii. Giving students practice so they can see how ell they are achieving learning outcomes
  iii. Following the practice with feedback to help students diagnose their strengths and areas that need to improve
  iv. Providing information that helps students plan what to do next
  v. Helping students, and others concerned with their learning, to track progress
- **Improving teaching**
  Assessment information can help a teacher to review the effectiveness of all instructional arrangements. If students regularly find the assignments difficult, it might suggest to the teacher that it is too demanding and he needs to change the instructional methods, revise the competencies, or help the students gain some relevant technical skills. Assessment results can also inform wider institutional decisions regarding which units/modules should be continued to be offered and which staff to recruit.

Modes of Assessment:

There are three modes of assessment:

- Diagnostic
- Formative
- Summative

Although are three are generally referred to simply as assessment, there are distinct differences between the three.

1. **Diagnostic Assessment**

   Diagnostic assessment is intended to improve the learner's experience and their level of achievement. However, diagnostic assessment looks backwards rather than forwards. It assesses what the learner already knows and/or the nature of difficulties that the learner might have, which, if undiagnosed, might limit their engagement in new learning. It is often used before teaching or when a problem arises. Diagnostic assessment can help you identify your students' current knowledge of a subject, their skill sets and capabilities, and to clarify misconceptions before teaching takes place. Knowing students' strengths and weaknesses can help you better plan what to teach and how to teach it. Diagnostic assessments are used to determine students' level of knowledge, skills, and understandings at the beginning of a course, grade level, unit and/or lesson. They test the students on what they already know. These tests allow the instructor to adjust the curriculum to meet the needs of the students.

   Types of Diagnostic Assessments

   - Pre-tests on content and abilities in order to get an understanding about the students' knowledge level
   - Self-assessments which is conducted to identifying skills and competencies of the students
   - brief interviews which are conducted in order to get an idea about the problems of the students which they faced in the classroom)

2. **Formative Assessment**:

   Formative assessment provides feedback and information during the instructional process, while learning is taking place, and while learning is occurring. Formative assessment measures student progress but it can also assess your own progress as an instructor. For example, when implementing a new activity in class, you can, through observation and/or surveying the students, determine whether or not the activity should be used again (or modified). A primary focus of formative assessment is to identify areas that may need improvement. These assessments typically are not graded and act as a gauge to students' learning progress and to determine teaching effectiveness (implementing appropriate methods and activities).

   In another example, at the end of the third week of the semester, you can informally ask students questions which might be on a future exam to see if they truly understand the material. An exciting and efficient way to survey students' grasp of knowledge is through the use of clickers. Clickers are interactive devices which can be used to assess students' current knowledge on specific content.

   For example, after polling students you see that a large number of students did not correctly answer a question or seem confused about some particular content. At this point in the course you may need to go back and review that material or present it in such a way to make it more understandable to the students. This formative

assessment has allowed you to "rethink" and then "redeliver" that material to ensure students are on track. It is good practice to incorporate this type of assessment to "test" students' knowledge before expecting all of them to do well on an examination.

Types of Formative Assessment

- Observations during in-class activities; of students non-verbal feedback during lecture
- Homework exercises as review for exams and class discussions)
- Reflections journals that are reviewed periodically during the semester
- Question and answer sessions, both formal—planned and informal—spontaneous
- Conferences between the instructor and student at various points in the semester
- In-class activities where students informally present their results
- Student feedback collected by periodically answering specific question about the instruction and their self-evaluation of performance and progress

3. Summative Assessment

Summative assessment takes place after the learning has been completed and provides information and feedback that sums up the teaching and learning process. Typically, no more formal learning is taking place at this stage, other than incidental learning which might take place through the completion of projects and assignments. Rubrics, often developed around a set of standards or expectations, can be used for summative assessment. Rubrics can be given to students before they begin working on a particular project so they know what is expected of them (precisely what they have to do) for each of the criteria. Rubrics also can help you to be more objective when deriving a final, summative grade by following the same criteria students used to complete the project.

High-stakes summative assessments typically are given to students at the end of a set point during or at the end of the semester to assess what has been learned and how well it was learned. Grades are usually an outcome of summative assessment: they indicate whether the student has an acceptable level of knowledge-gain—is the student able to effectively progress to the next part of the class?

Summative assessment is more product-oriented and assesses the final product, whereas formative assessment focuses on the process toward completing the product. Once the project is completed, no further revisions can be made. If, however, students are allowed to make revisions, the assessment becomes formative, where students can take advantage of the opportunity to improve.

Types of Summative Assessment

- Examinations (major, high-stakes exams)
- Final examination (a truly summative assessment)

- Term papers (drafts submitted throughout the semester would be a formative assessment)
- Projects (project phases submitted at various completion points could be formatively assessed)
- Portfolios (could also be assessed during it's development as a formative assessment)
- Performances
- Student evaluation of the course (teaching effectiveness)
- Instructor self-evaluation

Principles of Good Practice for Assessing Student Learning

American Association for Higher Education has identified nine principles of good practice for assessing student learning

1. The assessment of student learning begins with educational values
2. Assessment is most effective when it reflects an understanding of learning as multidimensional, integrated, and revealed in performance over time.
3. Assessment works best when the programs it seeks to improve have clear, explicitly stated purposes. Assessment is a goal-oriented process.
4. Assessment requires attention to outcomes but also and equally to the experiences that lead to those outcomes.
5. Assessment works best when it is ongoing not episodic.
6. Assessment fosters wider improvement when representatives from across the educational community are involved.
7. Assessment makes a difference when it begins with issues of use and illuminates questions that people really care about.
8. Assessment is most likely to lead to improvement when it is part of a larger set of conditions that promote change.
9. Through assessment, educators meet responsibilities to students and to the public.

Assessment measures if and how students are learning and if the teaching methods are effectively relaying the intended messages. Hanna and Dettmer (2004) suggest that you should strive to develop a range of assessments strategies that match all aspects of their instructional plans. Instead of trying to differentiate between formative and summative assessments it may be more beneficial to begin planning assessment strategies to match instructional goals and objectives at the beginning of the semester and implement them throughout the entire instructional experience. The selection of appropriate assessments should also match course and program objectives necessary for accreditation requirements.

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Activity:
Collect material on the characteristic of formative, summative and diagnostic assessment from internet and then prepare a presentation from this material.

7.2 Examination System

Generally, the examination means testing and estimating one's academic ability and performance. It also means to test the knowledge of a student through written or oral questions based on the prescribed syllabus provided for the test within a specified period of time. Examination is both a subject of research and the basic data for research. It is a vital part of the teaching, learning process, and educational development which determines the destiny of students and their life career. The efficacy of an education system, basically, depends upon the usefulness and effectiveness of its examination system. Examinations not only assess the competency of students' learning for admission but also for employment.

The examination is a tool to assess the students' caliber in any area. It is also considered a mechanism for decision making about teachers and students. Examinations not only serve the purpose of certification of educational attainments and determine a students' standing on the scale of achievements and educational standards, but also help foster accountability for institutions and their standing (Government of the Punjab: 1992).

Brief History of Examination System in Pakistan

The indigenous system of examination was started in 1857 in sub-continent with the establishment of the universities of Calcutta, Bombay, and Madras. Since then the examinations have been under a severe criticism. Their validity, reliability, and practicability have been called in question. From 1857 to 1990, so many commissions and committees were constituted to formulate the reforms in examinations system, and their recommendations have been implemented and many changes have been brought into the system of examinations. Despite all these efforts, the credibility of examinations is still dubious.

Functions and Objectives of Examination

In the Educational Policy of 1992, stated a few functions of examination such as to:

i. provide a systematic evaluation system to judge to what extent the educational aims, goals and objectives have been achieved.
ii. evaluate the students' academic achievement in the prescribed contents in a particular period of time
iii. assess the students' educational development in respect of personality and character building
iv. develop the students' study habits, planned research work and competition.

v. provide feedback to the institutions to take steps for improvement in strategies
vi. make decision about any meritorious reward and scholarship for students (Government of the Punjab: 1992).

Examination Reforms:

In December 1982, the Commission formulated the program of Examination Reforms and advised the universities to take suitable steps in this regard, beginning with examinations in 1983-84. This includes suggestions regarding the demarcation of the syllabi into well-defined units/areas of content with a topic-wise break down, replace of overall choice of internal options and the holding of examinations only after the requirements of minimum number of lectures/tutorials/laboratory work is fulfilled.

The universities were also advised to take effective security measures to conduct the examinations in order to establish the credibility of the examination system, which have eroded over the past several years. The basic point, which the Commission intended to emphasize, is that students should be assessed continuously rather than being assessed at the end of the year or after the end of the two years.

Implementation of Semester System of Examination:

The universities are gradually adopting the semester system of examination in Pakistan. This has been done because the conventional annual system, which conducts the comprehensive examinations at the end of the year, was extremely criticized by the intelligentsia, teachers, students, and the press. Accordingly, depending upon the infrastructure of each university and the findings of their expert committees, the universities are switching over to the semester system of examination in phased manner.

The University of Agriculture Faisalabad was the first to adopt this system in 1968, Quaid-e-Azam University Islamabad adopted it in 1971, and the University of Karachi in the year 1974. Other universities have adopted it from 1975-76. The system is restricted to university teaching departments and some affiliated colleges conducting postgraduate teaching and has not been introduced at the Bachelor Degree Level.

At present, there are two systems of teaching and evaluation, namely the conventional annual system and the semester system. The universities following the annual system hold their examinations twice a year, namely the first annual and second annual examinations and the universities following the semester system hold examinations at the end of each semester in addition to the periodic evaluation during the semester (University Grant Commission 1976).

Policy Guidelines Approved by Higher Education Commission (HEC) Pakistan for the Implementation of Semesterization:

The National Committee on Examination System (NCES) constituted by Higher Education Commission, Pakistan in 2006, deliberated on the two systems of examinations such as annual system and semester system of examination, and the NCES

issued a set of the following recommendations for the implementation and improvement in the semester system of examination.

i. All higher education institutions should gradually switch over for the semester of examination to attain harmony and uniformity at national level.
ii. All the concerned staff of the examination system should be given relevant professional training on a regular basis to handle the matters related to semester system of examination effectively.
iii. Choice of questions should be abolished in examinations to be held from year 2007.
iv. Grace marks should not be awarded by the year 2007.
v. The question papers should be set in such way so that the students' conceptual knowledge may be assessed.
vi. Multiple Choice Questions (MCQs) and Short Essay Questions (SEQs) should be encouraged to evaluate students' academic achievement. Detail questions/Long Essay Questions (LEQ) can/may be used for the purpose to evaluate writing ability in case of the discipline of social sciences etc.
vii. The practical / project should always be evaluated by constituting a panel of external and internal examiners, and marking of each examiner should be given weightage necessarily.
viii. The process of examination should be made transparent so that the students can discuss about the marks with their concerned teachers.
ix. It is mandatory to evaluate the teachers' performance by the students anonymously at the end of each semester in the classroom without the presence of the concerned teacher. The outcomes should be shared by the administration with the concerned teacher to teaching strategies.

The Higher Education Institutions (HEIs) in Pakistan were not much familiar with the semester system of examination before 2007, therefore HEC planned to set the guidelines, rules, and regulation to launch the Semesterization (Higher Education Commission, Pakistan, 2006).

Shirazi (2004) stated certain positive aspects of the semester system of examination. Its structure or schedule is very tight. The students are required to be very regular otherwise; they would face the consequences resulting due to attendance shortage. There are twenty sessional marks that make the students obedient and they avoid from mischievous behavior in the classroom. These sessional marks also distinguish between regular and non-regular or non-serious students. Despite all these merits, there are many deficiencies in the semester system of examination.

Summary of Recommended Reforms in Examination System of Higher Education

Many policies and reports were made to examine the examination system at higher level of education in the country, in order to suggest necessary changes, to remove the inadequacies and to bring it in conformity with new trends and requirements. Some major suggestions and recommendations are given below:

1. **Minimize Mal-practices:**
   To minimize mal-practices, periodic internal examinations should be introduced to include both essay and objective type tests, depending on the conditions and know-how available in the institution. Sufficient weightage should be given to them in the final examination or assessment. Also objective type tests should be included even in final examination. This will establish the authority and dignity of the teacher and of the agency or the institution conducting the examinations at present. As far as possible every university department should made an examination center for their own students and their own staff should be made responsible for the proper conduct of the examination.
2. **Frequent Evaluation:**
   There should be more frequent evaluation through monthly and mid-term test papers, reports, assignments, group discussion etc. it is also recommended that the academic year should be divided into two semesters of 4½ month each.
3. **Discussions on Common Mistakes of Students in Examination:**
   Within the semester system provision should be made for holding discussions on examination answer scripts and common mistakes committed by the individual students. Term-papers and other assignments should also be brought under discussion to help to student to evaluate himself. Thus the immediate knowledge of the results would help the students in self-improvement.
4. **Attitude towards being examined should be changed:**
   The attitude towards being examined should be changed. The students should be made to realize that examinations are an aid to learning and not penalties or something horrible to fear. As examination become frequent, the fear will automatically be eliminated or at least diminished.
5. **Comprehensive and Balanced Evaluation:**
   Evaluation should be made more comprehensive and balanced. This would be possible only when the external system is blended with internal evaluation and balanced with objective questions. Less emphasis should be laid on rote memory questions.
6. **Minimize delay in the conduct of examination:**
   Gaps in between different papers in the date sheets or examination programme be reduces to minimize delay in the conduct of examination. If possible, examinations should be held daily. Tabulation should be synchronized with assessment of answer scripts, and the answer scripts should be directly sent to the examiner from the examination center. Whenever possible, mechanical devices should be used for tabulation. The Heads of the institutions to which the examiners belong, should be made possible to collected the scripts and results, and then pass them on to the universities examination departments.
7. **Meaningful and Gainful Curriculum:**
   The curriculum should be made more meaningful and gainful by relating it to th real life situations.
8. **Avoid Selective-Study and Guess-Work:**
   The practice of allowing choice in attempting and given number of question in the examinations should be gradually done away with to avoid guess-work and selective-study.

9. Introduction of the Semester System:

It is hoped that the dependence on notes, guides and keys would be reduced with the introduction of the semester system.

Further Reading:

- Greaney, V., & Hasan, P. (1998). Public Examinations in Pakistan: A system in need of reform. *Education and the state: Fifty years of Pakistan*, 136-176.

Activity:

Prepare a comparison chart on the pitfalls of annual and semester system of examination

7.3 Teachers' Role in Assessment

If learning is to be improved, teachers in higher education will have to participate in the process of learning for more than they have before. This will involve them in the fundamental changes in their approach to assessment, curriculum and instructional design. According to the teacher, in higher education subscribe to the view that one of its function is to aid the professional development of the students. The development which could take place could simply be the outcome of physical and mental maturation independently of teaching, and it is the matter of observation that such maturation differs between individuals.

Teacher in higher education regards assessment as being a crucial element of the learning process, and yet training is rarely given to lecturers, new to the profession or wishing to develop their assessing abilities further Duncan Harris and Chris Bell in their book Evaluating And Assessing For Learning (1990), has described four possible roles of teachers, that are:

- Teacher as Performer
- Teacher as Composer
- Teacher as Conductor
- Teacher as Critic

Teacher as Performer

In much current formal education and training, the teacher as an expert is in the performing role. Information is usually provided to learner by words of mouth. When we already have printed how is it that we are so bad at using it that we have to retreat it? Why do we present it to mixed ability/background audience in an identical way so that few, if any, will find the pace and level anywhere near optimum?

The whole process is partially one of indoctrination into the way of thinking in the particular discipline: the learner needing to learn the code to enable communication to occur with the performer through the written words of assignments and examination. The onus may be apt on the learner's shoulders, particularly in decoding activities, but the

learner may well resort to memorizing for survival with little real decoding or understanding the receiver role is being viewed solely as memorizing.

Current assessing system implicitly encourages the majority of learners to use this strategy because they can gain sufficient marks or grades for certification. As we move towards easier and easier access to data and information, the other three roles of teachers have more relevance.

Teacher as Composer

The composer role is developing the range of learning experiences. Certainly not all of these can be pre-planned and pre-phased. The needs of the learners are paramount. The composer will design learning resources from worksheets to a range of books, magazines and other printed resources, from drill and practice computer-based learning to simulation and learning games based on the computer, from experience with equipment and the environment to experience with other people. The design will include the assessment procedures, assignments, record keeping and will define the responsibilities of the learner in self, peer and teacher assessment.

The teacher will, incorporate routines and experiences to enable the individual learners and group of learners to develop their strategies of learning how to learn. It is not haphazard design carried out by individual teachers but an overall mutual agreement on the composition that does not preclude improvisation and impromptu modes. The performers have become the learners with the teachers in their specialist role rather as the leaders of the groups of instruments.

Teacher as Conductor

The conductor role is the crucial role for the teacher of the future. It will be about enabling the group to learn how to learn in all areas of learning, how to organize, assess and evaluate their learning. The teacher as conductor will need to be a multi-disciplinary all-rounder with access to specialist when and where necessary. The specialist would act more as an adviser, consultant or leader in the particular context rather than a performer: the guest conductor brought in for a particular problem solving exercise.

The musical conductor is about ensuring that the pace and balance are right. Different instruments and the group of instruments play at different rates and at different levels according to the characteristics of the instrument. The conductor role is about ensuring that each learner will maintain self-assessment to continuously identify their learning roles and strategies suitable to their own characteristics. The teacher will facilitate the group of learners in following the learning design, according to the constraints, ability and environment in which learning is taking place.

Learners in classrooms and learners at home have different needs which may require different a design as those from classical western music and classical Indian music. Diagnostic assessment procedures, together with evaluation procedures, will also need to be utilized by the conductor, but these are really the role of the critic.

Teacher as Critic

The critic role is one which is shared between teachers, specialists and learners rather than being confined to the teacher or conventional examiners. Self and peer assessment will become more important parts of the assessment procedure. Assessments will be focused around reports presented orally, by electronic media and or in print.

Teachers use assessment to determine where the child is in the learning process and what teaching processes have worked. Tests, quizzes, papers, discussion, observation are a few examples of assessments. The assessments are used by teachers to evaluate the pupils with grades and/or parent conferences. If learning is to be improved, teachers in higher education will have to participate in the process of learning for more than they have before.

Teachers need to bring to the task of assessing the same level of self-evaluation and reflective practice that the teachers often require of the learners. Because, the teachers happens to be employed in position where part of the work is to award learners grade or marks for their work, it is easy to suppose that the teachers are capable of doing this part of their work competently and most automatically.

Further Reading:

- Hoyle, E. (1969). *The role of the teacher*. Routledge & Kegan Paul Books.

Activity:

According to you what are the roles of a teacher in assessment? Make a list.

7.3 Learners' Role in Assessment

According to Duncan Harris and Chris Bell learners are also considered in the context of four possible roles that are:

- Learner as Receiver
- Learner as Detective
- Learner as Generator
- Learner as Facilitator

At the first sight there may appear to be a simple relationship between receiver, memorizer and facilitator. It is our contention that the relationship between learning activities and learner role are not that simple. Additionally preferred learning styles of the learners interact to make description of the learning process even more complex.

Learner as Receiver

Let us consider the learner sitting in a lecture theatre or classroom being showered with words, pictures, diagrams, lectures, books, experiments, computer programs, face to face conversation and television. There is an over-abundance of signals and stimuli to receive. The human brain filters out many of these signals. The learner has to create decoding

strategies based on their own experience in order to cope with the filtering and rearranging of ties wide range of data, information and experience. This filtering and rearranging enables the learner to make sense of the vast array of information and to place it in their own context based on their previous experiences from both within and outside institutionalized learning.

The receiver role may involve all of the learning activities. For example, from experience of previous learning, some lecturers may use a variety of note-taking strategies from heading and sub-heading to mind maps, from mnemonics to picture associations. Each is using strategies in a creative way to decode material to be memorized into a format which the learner feels helps them to remember. Unfortunately, learners often assume that the learning environment aimed at decoding is in fact aimed at memorizing. Learners may then use their energies and apparent role to focus on the wrong types of activities.

As we have noted above, the learner as receiver has a large amount of decoding to undertake. Here decoding enables stimuli from print, experience or oral contacts to fit into existing life experiences and enable the learner to recode information back into an acceptable form, often via memorizing. The use of mnemonics and other memorizing strategies is a form of decoding. This decoding may involve creating new associations and interactions to aid memorizing.

Learner as Detective

The detective is a different role where the learner again has a whole array of stimuli. However the assumption behind the use of these stimuli is different: that of discovery. This discovery may not be new to experts, but may be new to the learners. Here memorizing is used to identify strategies that were successful on various occasions in searching, analyzing and communicating. The decoding activity is obviously crucial in his role. Analyzing may create new information and results in the creation of alternative types of the communication. Finding the responses of others is also an important aspect in eliciting responses and assisting peers.

Learner as Generator

The generator is the role where new ideas, new communications and new ways of viewing events are created. Again, memorizing and decoding are important aspects. The memorizing is more subliminal, involving passive recourse to memory rather than actively recalling. Strategies, environments and experiences, which enhance the role, may be memorized and recalled actively, but conventional cognitive and psychomotor skills are probably not used so actively in this role. Decoding is crucial but is more likely in the sense of decoding one's own thoughts, ideas and presentations. Creating is obviously related to the generator role, although that creating may be a long hard labor for some, and a more spontaneous activity for others. The loving aspect is more doubtful in this role. Some people as generators need solitude and isolation while others find social contact more essential.

Learner as Facilitator

The facilitator role focuses on interpersonal relationships and helping other to learn. Others may be fellow learners, colleagues or even teachers. Again each of the four learning activities is involved. Memorizing is more about remembering names, individual sensitivities, likes and dislikes. Decoding is about watching for and feeling for tensions, visuals and facial signals, listening for oral signals, feeling body space and territory. Creating involves using those decoded signals and providing personal signals, which enable, inhibit, encourage or discourage interpersonal learning; creating harmony or discord. Many learners are lacking in personal skills such as initiating and terminating conversations. Are those skills memorizing, decoding or creating? It is clear that the loving activities of learning are the focus of the facilitator role.

As learners are often unaware of their own best styles of learning or their optimum work cycle, effort will be necessary over a period of time to help them to find out more about themselves. The focus of that exploration is limited by times and styles of working. Rather than imposing alternatives from the teachers it is better if learners can find out from one another by sharing how they work when studying, reading, problem solving etc.

Further reading:

- Murphy, P. (Ed.). (1999). *Learners, learning & assessment* (Vol. 2). Sage.

Activity:

How can a learner perform his role in a better way in assessment? Give recommendations.

7.5 Entrance Test

Entrance test is a test that many educational institutions use to select students for admission. These exams may be administered at any level of education, from primary to higher education, although they are more common at higher levels. In Pakistan Entrance exam is taken annually for admission in Engineering and Medicine courses. Every province and federal capital conducts its own entrance exam rather than one sole state owned competitive exam. The appearance in exam is mandatory for every high school student to pursue his studies at university level in Public sector universities.

Entrance tests access your logical reasoning and thinking ability. The tests are strictly timed. Generally, the time given depends on the number of questions in test. There are many different types of questions which can be asked in an entrance test. These different types of questions can be categorized as:

1. Verbal Ability:

It comprises the English speaking skills of a person. Spelling and grammar are included in it. It is based on the understanding of accurate meaning of the words, formation sentence or sentence structure, idioms and proverbs. It tests the skills

like understanding the information, recalling the information, and understanding of language concepts. The questions included in verbal ability can be of the following types:

- Spelling questions
- Missing word questions
- Missing word questions
- Synonyms and antonyms
- Word pair questions
- Comprehension
- Reasoning questions

2. Numeric Ability:

It includes basic mathematics like addition, subtraction, multiplication, and division. In some tests, data interpretation is also present which means interpretation of charts and graphs. Numeric ability can be categorized as a speed test. A speed test means that the questions are very simple and the methods used to solve them are very clear. It is just considered with how many questions you can answer correctly within a given period of time. You are not allowed to use a calculator. The questions included in numeric ability can be of the following types:

- Arithmetic questions
- Sequence and series
- Numbers represented by alphabet
- Data interpretation

3. Abstract Reasoning:

It includes the questions which have a very little or no application in the real world. The question tests your understanding of patterns and figures and also the similarities and differences between shapes and figures. This test does not require any educational qualification.

4. Spatial Reasoning:

It includes your ability to draw or interpret drawings. It tests your imagination. The question may require you to imagine a given drawing rotated at some angle or visualize a two dimensional drawing in a three dimensional view. It may also include visual assembly or disassembly of an object. The questions included in spatial reasoning can be of the following types:

- Shape matching
- Group rotation
- Combining shapes
- Three dimension views
- Maps and plans

5. Mechanical Reasoning:

It tests your knowledge of mechanical and physical concepts. Your score significantly depend on your knowledge. The various aspects included in it are:

- Levers
- Gears
- Pulleys

- Electrical circuits
- Springs
- Tools

6. **Fault Diagnosis:**
   It tests your ability to find faults in mechanical and electronic systems. This type of test is taken by those who want to work as technical personnel.
7. **Data Checking:**
   It tests that how accurately and speedily you can find out errors from the given data. Mostly, you would be given two columns of data and you have to find the differences between the two. The data is not much meaningful. This type of test is done for clerical jobs, administrative jobs, or jobs related with banking and accounting.
8. **Work Sample:**
   In this you will have to give the sample of the work you are expected to do after you get the job. Therefore, it will involve a specific skill.

Importance of Entrance Test:

The entrance test can be used as a measure of the abilities of a person. These tests give the complete picture of a person's mind. The entrance test is of a great importance for the students who want to take admission in any institute for further studies or those people who want to change their profession. The test will give them a precise result of what is the actual abilities of a person. The importance of an entrance test can be understood by the fact that they being widely used now for various purposes. Some of them are:

1. **Placement purpose:**
   Every course requires some specific skill or some particular trait in the person; it is evaluated by entrance tests. Mostly, the entrance test is used in conjugation with a personal interview or a group discussion or both for placement in the course. It is difficult to cheat in an entrance test, therefore, they are considered reliable by most of the interviewers. These tests give the interviewer an idea of the natural abilities, strength and weaknesses of the interviewee.
2. **Choosing a career:**
   The result of the entrance test tells us about the skills or abilities of a person. This result is of great help for choosing a career. A person will get to know what he is good at and he should choose a career accordingly. For example, a person takes an entrance test and the result shows that the person's verbal skills are excellent but the numerical skills are very poor. In this case, rather than choosing a career which requires him to enhance his numeric ability, it would be beneficial for him to choose a career which requires his verbal skills. Therefore, entrance test becomes guidance in choosing a career.

Types of Entrance Tests in Pakistan:

Following are the types of entrance tests prevailing in Pakistan.

1. **UET ECAT**
   ECAT is basically a subject test. It includes Physics, Mathematics, Chemistry or Computer, and English. The number of questions and weight of the test and sections vary considerably.
2. **MCAT**
   Medical college admission test is a test which the students have to pass in order to get an admission in a medical or dental college and university. All Medical colleges in Pakistan consider MCAT scores as a vital part of their decision making process for admission to Medical schools.
3. **SAT**
   There are two kinds of SAT tests, SAT-I also known as SAT Reasoning Test and the other SAT-II, known as SAT Subject tests. SAT is a standardized test for getting admissions into universities.
4. **NTS**
   National Testing Service is an NGO in Pakistan that holds academic evaluation tests. The candidates will appear in a single test only and will stand eligible for admission to all universities in the respective subject group on basis of that test. They can apply to different universities producing the required documents along with the copy of NTS result card.
5. **GRE**
   The GRE or Graduate Record Examination is a standardized test offered by a private educational testing and measurement organization known as ETS (Educational Testing Services).
6. **LCAT**
   LUMS Common Admissions Test is mandatory for all applicants applying to B.Sc. (Honors), B.A. (Honors) and B.A-LLB at LUMS. LCAT test score is an essential factor in the evaluation criteria for selecting a suitable candidate for admission in various disciplines.
7. **NUST**
   NUST conducts NET at three locations, i.e. NUST Campus Islamabad, Karachi and Quetta. Whereas at Islamabad Campus NET is conducted in computer-based format, in Karachi and Quetta the test is in paper-based format.
8. **COMSATS-NTS TEST**
   COMSATS in collaboration with NTS conducts NTS tests in all of their campuses. To get admission in COMSATS, you have 2 options: Give a general NTS or COMSATS NTS. The test is same as that of NTS test and is also conducted on the same day and same time as that of NTS, BUT, If you select COMSATS NTS, then its result will only be counted for COMSATS while in general NTS, you are free to select any NTS collaborated university.
9. **University Own Based Entry Tests**
   Many universities like UMT, UOL etc. conduct their own tests which are relatively easy(easy syllabus, mostly basic questions-English and simple math only in many

of them) as compared to other universities, they have less quantity of questions and mostly every candidate pass these tests easily because questions are easy.

How to prepare for an Entrance Test?

If you are appearing for an entrance test which is competitive or for placement purpose, here are some tips which could be helpful to you.

- **Learn the basics:**
  There is no particular syllabus for entrance test. Anything could be asked from you in the test. So, it becomes necessary that all you basic subjects, especially mathematics, are clear to you. You should know all the basics you learnt in the school.
- **Everything is important:**
  In a competitive exam, even a single mark becomes very important. So, you should not leave any topic while preparing. Even if you find a topic difficult, do not leave it. Read that topic again and again or take help from your teachers. You do not know what will come in exam, so you should prepare all the topics very well.
- **Practice:**
  As it is said, practice makes a man perfect. You should go for mock entrance tests. There are many books available for entrance tests. The internet is flooded with entrance tests which are free of cost. Go for them. The more you will practice, your speed will increase. You will also come across many different types of questions, which might increase your knowledge. It is also possible that you may get the same question you practiced in the test.
- **Know your weak points:**
  You should know in which topics you lag behind. You should prepare those topics first because you do not need much time to prepare those topics which you are good at.
- **Do not waste time:**
  Time is very precious. If you get stuck on a question and you do not find any way out, leave it for that particular time and come back to it later.
- **Be careful while attempting:**
  Most of the tests have negative marking. So just do not attempt the question if you are not sure about the answer. Do not assume your answer to be right. A zero is always better than a minus one.
- **Avoid gaps:**
  Avoid gaps in your practicing routine as it can decrease your speed. Large gaps can make you forgetful. If you have a busy schedule on a particular day, try to take out at least 30 minutes for practicing questions. Do not waste any day without practicing.
- **Take care of yourself:**
  Body and mind are interlinked. For a healthy mind, the body should also be healthy and vice versa. Sleep well and eat well. Take at least 6 hours of sleep.

Conclusion

It is a common problem of accommodating the large number of young people desiring entrance in different vocational, professional and higher education programmes. Thus, some means of screening applicants must be used. One method is the use of a standardized testing programme. In USA and many other countries, a great deal of admission testing for colleges is done by several private testing concerns. One of the oldest and best known of these is the College Entrance Examination Board (CEEB). These tests are taken by the youngster in his senior years of high school. The results can help the guidance staff in helping child to choose a college.

Further Reading:

- Silfverberg, D. V., & Orbeta Jr, A. C. The Role of Entrance Exams in Academic Performance of Students with Low Socioeconomic Background: Evidence from the SGP-PA.

Activity:
Conduct a mini seminar of at least five colleagues of your institution on the entrance tests and present your recommendations for its improvement within the context of present day situation faced by Pakistan.

7.6 Summary of the Unit

Assessment is formally defined as a measure of performance. Educational assessment is the process of documenting, usually in measurable terms, knowledge, skills, attitudes and beliefs. Thus, in addition to providing the instructors with valuable information about our students' learning, assessment should assist the students in diagnosing their own learning. That is, assessment should help students become more effective, self-assessing, self-directed learners. There are three modes of assessment:

- Diagnostic
- Formative
- Summative

The examination is a tool to assess the students' caliber in any area. It is also considered a mechanism for decision making about teachers and students. Examinations not only serve the purpose of certification of educational attainments and determine a students' standing on the scale of achievements and educational standards, but also help foster accountability for institutions and their standing. The Higher Education Institutions (HEIs) in Pakistan were not much familiar with the semester system of examination before 2007, therefore HEC planned to set the guidelines, rules, and regulation to launch the Semesterization.

Teacher in higher education regards assessment as being a crucial element of the learning process, and yet training is rarely given to lecturers, new to the profession or wishing to

develop their assessing abilities further Duncan Harris and Chris Bell in their book Evaluating And Assessing For Learning (1990), has described four possible roles of teachers, that are: Teacher as Performer, Composer, Conductor and Critic.

According to Duncan Harris and Chris Bell learners are also considered in the context of four possible roles that are: Receiver, Detective, Generator and Facilitator. At the first sight there may appear to be a simple relationship between receiver, memorizer and facilitator. It is our contention that the relationship between learning activities and learner role are not that simple.

Entrance test is a test that many educational institutions use to select students for admission. These exams may be administered at any level of education, from primary to higher education, although they are more common at higher levels. The entrance test can be used as a measure of the abilities of a person. These tests give the complete picture of a person's mind. The entrance test is of a great importance for the students who want to take admission in any institute for further studies or those people who want to change their profession.

7.7 Self-Assessment Questions

1. Analyze the advantages and disadvantages of annual and semester system and suggest a workable model which combines the strengths of both these types for adoption in Pakistan.
2. Critically analyze the role of teachers and learners in assessment. Give some roles of teachers and learners in assessment other than mention in the unit.
3. Write salient features of entrance tests (N.T.S) in Pakistan.
4. What are the policy guidelines of the National Committee on Examination System (NCES) approved by Higher Education Commission (HEC) Pakistan in 2006 for the implementation of Semesterization?

References

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Hanna, G. S., & Dettmer, P. A. (2004). *Assessment for Effective Teaching. Using Context-Adaptive Planning.* Boston, MA: Pearson A&B.

Erwin, T.D. and Knight, P. (1995). A Transatlantic View of Assessment and Quality in Higher Education, *Quality in Higher Education*, 1, (2), 179-88.

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Unit–8

PROBLEMS AND ISSUES IN HIGHER EDUCATION

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Introduction

Education plays a vital role in human capital formation and development. It raises the productivity and efficiency of individuals and thus produces skilled manpower that is capable of leading the economy towards the path of sustainable economic development and improve quality of people's life in any country. The goals can be achieving by raising quality of education at different level but is more significant to improve quality at tertiary level. Higher education is provided by universities, colleges, and other institutions that award academic degrees have paramount role in preparing people for their practical life and education at this level is responsible in developing life skills that are essential for any person to live an acceptable life in the society. Higher education includes both the undergraduate (i.e., college) and the graduate (or postgraduate) levels and it also includes most professional education and is strongly vocationally or professionally oriented.

The case for higher education in developing countries, while apparently straightforward, has traditionally been contentious (World Bank 2000). Some development specialists argue that investment in basic education yields higher returns than money spent at higher levels, making higher education a luxury that developing countries cannot afford. However, that argument is increasingly challenged on the grounds that national economic development requires a more balanced education system to enable people to think differently and be able to generate indigenous and workable ideas to improve the nation economically, socially and ethically (Heynemann 2006).

Higher Education is important because it improves an individual's quality of life and it supports individuals to access health care, better dietary and health practices, greater economic stability and security, more prestigious employment and greater job satisfaction, less dependency on government assistance, greater knowledge of government, greater community service and leadership, more volunteer work, more self-confidence, and less criminal activity. Higher education, theoretically, will also enable individuals to expand their knowledge and skills, express their thoughts clearly in speech and in writing, grasp abstract concepts and theories, and increase their understanding of the world and their community. There are numerous best universities in Pakistan that offer higher level education ever year but despite all of this Pakistan is far behind from the world as concerned to education and particularly higher education. This year, Pakistan is celebration its 70 years of independence but we are not able to find the right way of giving quality education to the students at colleges and university level who will be critical thinkers, reflective practitioners and be able to contribute to the development of this country for their knowledge, wisdom and innovation. There are several issues and problems that hinder providing quality education and one of these problems are well thought, planning and market oriented higher education aim at developing high quality teachers, educators, innovative scientist, better and service oriented physicians, honest bureaucrats, truthful and sincere planner and policy makers. These are the individual who are supposed to transform institutional structure, form societal norms, change individual's mind by their practices. Hence, Pakistan need to improve education particularly higher education that bring changes in people behavior, change their attitude to contribute

positively and take the responsibility to make a positive difference starting from their own live. To improve higher education system, one has to understand issues and problems of higher education and identity exactly what the loopholes in our education at tertiary level are and then what can suggest ways to address these problems.

This unit will highlight some of the problems that exist in our higher education and how can you as teacher and teacher educator can contribute to address these problems by improving your own classroom teaching at different level. The unit will outline objectives that to be achieved after studying this content, it also mentions some critical problems of higher education, and engage students with task that will able them to think critically that what can they do to improve higher education.

Objectives

By the end of this unit students will be able to:

- identify issues and problems of higher education in Pakistan
- discuss and find alternatives to address these issues and challenges
- highlight factors influencing higher education in Pakistan.

8.1 Problems in Higher Education

South Asian countries are facing a critical period in their history, and on that account, everybody concerned with education has a responsibility for knowing what one is trying to do in bring up the next generation and why she/he is trying to do it (Mohanthy, 2000). Higher education is faced with very severe challenges in the shape of various economic, social, political, and moral changes, and its future depends on the response made by its people to these challenges (Rao, 2003). The problems plaguing the educational system of Pakistan is multidimensional like population explosion, lack of resources, non-participation of the private sector, scarcity of qualified man power, inconsistency in the policies of various regimes, political instability, inefficient educational management system, wastage of resources, and poor implementation of policies and program etc." some of the problem are mention in detail as follows:

8.1.1 Academic Problems

High quality academic faculty having strong academic and research background is very important for higher education. Most of the universities across the world attract individuals who are well verse in their subjective matter as well as in pedagogy. When we analyze higher education in Pakistan, we all know very well that resources regarding education are not enough but the problem is that we are not taking benefits of available resources or in other words resources are not being utilized properly due to less skilled, committed and politically influenced administration. The education in Pakistan has been distributed into different level and equality. Education is different for poor's and for rich. There is no proper monitoring system in Pakistan to control the education system. Numerous educational institutions and universities are opened now but the standard of education is not good at all. Below are given some critical academic problem that are faced by higher education in Pakistan:

- **Inefficient use of Available Resources**

Education is universally accepted as a means for a country's economic, social and political development. The success of higher education depends greatly on the effective and efficient management of resources by institutional administrators. Thus, effective management of resources is very important in the achievement of quality education. Educational resources are those things that can be used to achieve educational objectives. They can be tangible and intangible resources. They can be categorized into finance, physical/material, human, information, knowledge, time and technological resources needed for effective operation of higher education. They are educational inputs that enhance both academic and administrative work in higher institutions. Resource management therefore, means the systematic coordination and integration of available resources for the achievement of the set goals of higher education. It involves a number of related activities such as planning, leading, coordinating, controlling, supervising or monitoring and directing in order to achieve efficient use of available resources for maximum output. Resource management involves resource mobilization and development. The purpose of resource management in higher education is to produce quality graduates who can contribute meaningfully to the development of the nation.

Institutional administrators are therefore, expected to have the requisite skills, knowledge and competence to intelligently and effectively coordinate and manage the various resources at their disposal for quality output. Hence, higher institutions need competent and effective educational leaders. Some of the skills needed for effective management of resources by institutional administrators include technical, conceptual, human, decision making and communication skills. Resource management in higher education is not just a responsibility for institutional heads alone, it involves team work. One of the problem in the higher education of Pakistan is inefficient and ineffective use of available resource. Universities are not using the available resources to its complete potential that could benefit students to learn and grow at their maximum abilities, for example, faculty and students together do not use the available time productively and effectively. Faculty consider that spending the specific time allocated for each subject is enough to prepare students for mid and final term examination. They do not engage students to think differently for their practical life, and even enable students to ask themselves, why they are enrolled in this university. Similarly, faculty do not encourage students to spend their maximum time in library and develop their understanding in the respective discipline by assigning them creative and innovative assignment during semester. Higher Education commission has established an excellent online resource system for students and faculty but to what extent students and faculty benefit from these resources for their academic excellence is still a question to explore. It is observed that these online research materials are not fully utilized by universities particularly by student to increase their knowledge of research and different discipline.

- **Lack of Monitoring**

Education quality monitoring is continuous collection of data on education quality and indicators used to provide management of Higher Education and main stakeholders with indications of the achievement of objectives of education system. The obtained information can be used for reasonable decision-making. Monitoring is always complemented by evaluation process. Results-based Monitoring and evaluation system is a powerful tool that management can use to measure outcomes and feed the obtained information back into the process of decision-making. Quality in higher education is multifaceted and complex, and although there are different perceptions of quality monitoring in higher education, quality, whatever its focus, has become the vehicle through which accountability is addressed. It is argued that the focus for quality should, in a rapidly changing world, be on the attributes of graduates, where transformation of the learner is central. Quality monitoring should be concerned with improvement and enhancement of student learning. The major problem of higher education in Pakistan is, absence of high quality monitoring and quality assurance at college and universities. There is no such mechanism that ensures effective and highest standard of teaching learning process in the classroom. It is significant to track and measure what is happening inside the classroom and how our higher education institutions are preparing students for further leaderships, research and decision making. It is also important to note that education and teaching is not merely a process of completing the given course and syllabus but it is molding individual thinking, perspective and horizons of looking at universe and human being differently and enable everyone to contribute for human

growth and development. This process is not really measured and monitored in higher education of Pakistan.

- **Emphasize on Quantitative Education Rather than Qualitative Aspect of Education**

The ultimate aim of education is developing individual who are effective and responsible citizens of a country and every literate and educated person put his/her best efforts to prepare for national development and growth. Education prepares learner to reflect on what works him/her and as result benefit the country where he/she lives. Now we need to look at our higher education system and need to raise questions. Does it develop such individuals who really cares of their community, province and country? Are they well connected with the development of their country? Are they emotionally associated with their country through education? Therefore, focusing quality aspect of education is very important in higher education which is completely ignored. Faculty and students are attending higher education institution mechanically and complete two to four years' program and then search for job in the marked which is hardly acquired. The major reason of unemployment in the country is lack of quality people rather lack of job opportunities. Universities in Pakistan are emphasizing on number of students graduating instead of focusing what they have learned and how will they be contributing to the society to improve quality of their own life as well other with whom they are live and working.

- **Inadequate Attention for Research**

Higher education plays an essential role in society by creating new knowledge, transmitting it to students and fostering innovation. Research-based education has recently received increasing interest both among researchers in higher education and in public discussion. In the context of higher education, research skills and expertise are very critical and significant and engaging faculty and students in meaningful research studies and project is fundamental to address the issues of society at large and in education in particular. Hence, higher education institutions must encourage research at different levels to enable students learn about research approaches and develop skills in conducting researches. Unfortunately, research is not well integrated in higher education of Pakistan and students at master and PhD level are not given adequate support to develop research skills. Overall research is not well established in Pakistan by Universities and there are very few universities having research journals that encourage faculty and students to conduct and publish research.

8.1.2 Lack of professional growth

Many would argue the purpose of higher education is to enhance learning, inquiry, and development for individuals within our society. In such a setting, mentoring, a common method of employee development, would then fit within the scope of enhancing learning, inquiry, and development of faculty. Mentoring is an interpersonal relationship that fosters support between a mentor and mentee. While this seems to be an ideal developmental tool for employees, few faculty mentoring programs exist in higher education and little is known about mentoring faculty in higher education. This problem

will be addressed by reviewing literature in the areas of human resource development, higher education, business, and psychology.

"Informal and incidental learning is at the heart of adult education because of its learner-centered focus and the lessons that can be learned from life experience" (Marsick & Watkins, 2001, p. 25). Informal learning can occur anywhere, but is not typically highly structured. It can, however, be intentionally encouraged to occur with an organization. Higher education institutions could employ such encouragement for faculty development. Popular examples of informal learning include mentoring, coaching, networking, and self-directed learning (Marsick & Watkins, 2001). Informal learning, such as mentoring, aligns with what we currently know about adult learning. Zemke and Zemke (1995) posit several ideas: adults prefer meaning in their learning; adults rely on prior knowledge and experience; adults are oriented toward solving problems and directly applying their learning in an immediate fashion.

The culture within higher education also needs to be examined when discussing mentoring programs. Tierney's (1988) work provides a framework for higher education culture which includes six major components: Environment, Mission, Socialization, Information, Strategy, and Leadership. The socialization element represents one aspect in which mentoring can contribute additional information. Within Tierney's (1988) framework, he asserts that socialization takes into account answering such questions as, "How do members become socialized? How is it articulated? What do we need to know to survive/excel in this organization?" (p. 8). Such questions build a foundation in which mentoring seeks to provide answers. It is also essential to realize that the system and individual should be suited with one another. Schein's (1971, as cited in Hall, 2002) Model of the Organizational Career helps describe the career from both the individual and organizational perspective. Understanding this three-dimensional model in terms of moves an individual can make within an organization and the types of boundaries that exist within the organization can apply to those entering into mentoring relationships. Universities in Pakistan need to devise an effective and implementable model for professional development of their faculty to manage the rapid change and development in education. Faculty of Pakistani universities need to have the equal caliber and competency of the faculty of the universities at global level because world is now become a global village. If faculty of Pakistani Universities will acquire international level competencies, then they will be able to educate and prepare students to compete global competitions.

8.1.3 Management Problems

Higher Education (HE) is currently operating within an environment of continuous change and uncertainty. Vice-Chancellors, Executive Managers, Deans, Departmental Heads and Administrative Managers are encountering an acceleration of varied and difficult managerial problems. Morgan (2006) asserts that successful managers are "open and flexible", suspending decisions whenever possible, until a better understanding of the problem is attained. He believes that modeling insights may lead to a range of informed decision scenarios that may solve the identified problem. Furthermore, Morgan goes on

to suggest that less effective managers are seen to explain and interpret from a "fixed angle", and to continually hammer at persistent problems using the same old methods – which can facilitate disillusionment and conflict amongst academic, administrative and technical staff (Bell et al, 2012). A paper by the Higher Education Funding Council for England (HEFCE) asserts "Higher Education changes lives. It is enriching and inspiring for students and it is vital to social mobility, future economic growth and our international standing". This succinctly captures the need (or "the why") for Higher Education. In the past, Higher Education organizations were considered to have a relatively stable and certain future (Kennedy 2003). However, Higher Education has to evolve to meet the now rapidly changing demands of society and government in Pakistan. Over the last two decades employment patterns have changed significantly, and there is a need for a more highly trained and educated workforce. This workforce must continuously update its skills to meet the changing requirements of the labor market. This will have a significant impact upon departmental, faculty and institution budgets, as income becomes directly related to student numbers. In the last decade or so the Government has demanded greater university accountability for the public funds they spend, which has in turn placed an emphasis on management practices and the measurement of education quality. Trow (1994) coined the terms "hard" and "soft" managerialism which characterize the different government and university management approaches respectively (Kekale, 2000). Higher education goes worldwide through a process characterized by significant changes both in educational demand and in the educational offer. Higher education institutions are put in a position to find solutions to problems arising from internal and external customer characteristics.

One of the major responsible factor of problems of higher education in Pakistan is management. Management has been biggest problem of Pakistan since independence. Even our political leaders are less educated so they have no idea how to manage the education systems. Unskilled and inexperience staff is being recruited by avoiding the merit so how can an inexperience and unskilled individual can run system properly. Recruitment in education system need to be fair in order to improve management system and quality education in Pakistan. Competent individuals will devise justified policies and ensure fair implementation of policies to improve management system and enhance quality education. Following are problem related to management that hinder quality education in Pakistan;

8.1.4 Practical Problems

The broader goal of higher education in any country is developing human resource that is well equipped for practical life and graduating students must be prepare to embark to new venture in real life situation. They need to know about the subject matter they have studies and they need to have skills which are required to perform in any organization relevant to their discipline. These graduates must be aware of challenges and issues of their subject areas in society and they required to have some solid ideas and plans how to deal and address these challenges. Some practical problems prevailing in higher education institutions of Pakistan that are mentioned below:

- **Lack of Internship Facilities for Students of Higher Education Institutions and Universities**

At universities faculty can develop students understanding of concept in the classroom, they can discuss and explain context and concepts relevant to course/syllabus but students' need hands on experience to apply what they have learn in the classroom through interaction with faculty and peers. Hands on experience can be gained through internship program that universities can plan by collaborating with industries and service providing organization. In the context of Higher Education in Pakistan, the link between higher education and industries and institutions is missing where students can get opportunity to implement their learning and understanding to develop critical thinking skills and experiential knowledge and skills.

8.1.5 Financial Problems

The funding of higher education is a large and complex topic. It is complex in part because of the multiple sources of revenue and the multiple outputs, or products that are only loosely connected to these different revenue sources. It is further complex because these revenue and expenditure patterns vary significantly by types of institution (university, four-year college, two-year college), mode of governance (public or private), and by state. Within the private sector, expenditure levels as well as patterns of pricing and price discounting vary greatly by institutional wealth and by the depth, demographics, and family affluence of the applicant pools. In the public sector, these patterns vary as well according to state funding levels, tuition policies, and enrollment limits set by state governments or by public multi-campus governing boards.

The topic is also large because finance underlies so much of the three overarching themes of contemporary higher education policy: quality and the relationship between funding and quality in any of its several dimensions; access, or the search for social equity in who benefits from, and who pays for, higher education; and efficiency, or the search for a cost-effective relationship between revenues (particularly those that come from students, parents, and taxpayers) and outputs, whether measured in enrollments, graduates, student learning, or by scholarly activity of the faculty.

Within these broad themes lie public and institutional policy issues that are better informed, if not definitively answered, by economic and financial perspectives. How, if at all, can costs especially to the taxpayer and to the student be lowered without damage to academic quality or to principles of access and participation? What are appropriate ratios of students to faculty and to professional and administrative staff at various kinds of institutions, and what are reasonable conceptions and expectations of higher educational productivity? How can institutional aid, or price discounting, be used to maximize net tuition revenue in the private sector? Is taxpayer money in the public sector best used to hold down tuition, or should they go toward expanded need based aid, with public tuitions raised closer to the full average costs of undergraduate instruction? Is public aid money best used for grants or loan subsidies? What of public aid based on academic promise or performance rather than family need? And what is the appropriate response by institutions and governments to the pervasive condition of severity in higher education**,**

whether brought on by declining enrollments, declining state assistance, or runaway costs? Higher education in Pakistan has problems of budget allocation and some of the relevant problems are highlighted bellow:

- **Inadequate Funding**

Research has shown that education can make a lasting difference in children's lives, enabling them to understand their surroundings and challenges to their quality life. Only education is making a difference in children lives which they are taking at different levels and particularly quality education matters for them. Enhancing quality education in classroom and schools requires investment to improve classroom infrastructures as well as teachers' competencies for better delivery of content and concept through updated pedagogy. Education can put people on a path towards good health, empowerment and employment. It can help to build more peaceful societies. And the benefits of girls' education extend to their own children who are often healthier and more educated because their mothers went to school. Hence, investing in education is significant to increase economic output at individual and national level but in Pakistan education is given least priority and hardly 2.0 percent of GDP is allocating for education. Similarly, funds for higher education is not encouraging to address the needs and requirement of current competition, particularly allocation of funds for research projects is alarmingly low.

- **Fee Structure of Private Universities**

Another problem of higher education in Pakistan is, higher rates of fee structure in private universities that discourage parents and students to enroll in private institution to acquire education of their interest and market required disciplines, for example project management, human resource management which are not offered in public sector universities.

- **No Share of Foreign Direct Investment in Education Sector**

Increasing access to education and enhancing quality education must be the priority of any country and to achieve enrolment targets and quality, countries are strive to developing partnership and collaboration with international universities and donors so that investment in education is encouraged but in Pakistan, investment in higher education by foreign institution is not appreciate and given opportunity. In recent years, some initiatives are taken to improve higher education in Pakistan, for examples B.Ed. (hon) was designed with support of foreign support which is very strong pre-service teacher education program, another initiative was strengthening and developing capacity of university faculty. Such partnership and collaboration can make a positive difference in higher education of Pakistan.

8.1.6 Faculty Experience

The quality and value of an undergraduate education in the past decade received, and continues to receive, scrutiny by various stakeholders associated with the higher education community. Much of the energy surrounding the undergraduate experience and student learning was placed on the two major responsibilities of faculty, teaching and

research (Fair weather, 1996, 2002; Marsh & Hattie, 2002). The regulation of time allocated to these two roles was quickly becoming one of the most salient issues in higher education. Unfortunately, much of the debate about the nature of faculty work was covered in myth, opinion, and conjecture (Fairweather, 2002). Myths, such as a faculty member being highly involved in teaching undergraduate experience resulting in greater student learning gains were important to debunk or substantiate. As a result, assessing the impact that faculty behaviors and interactions with students in the classroom have on the undergraduate classroom experience was suitable for examination in the current study. Conducting empirical research that focus on faculty behaviors and interactions with students in the classroom will advance the literature on the role faculty play in student learning. Barr and Tagg (1995) suggested a paradigm shift to improve the quality of graduate education (i.e., from providing instruction to students, to producing student learning) that would create learning centered campuses and maximize students' learning. However, creating a student-centered campus necessitates knowing how students learn, understanding barriers to student learning, and developing classroom techniques that promote learning among college students (Stage, Muller, Kinzie, & Simmons, 1998). Several national reports have echoed the call for studying the graduate experience. An American imperative turned improving the quality of undergraduate education to a conversation on how to place student learning at the core of the academy (Wingspread Group on Higher Education, 1993). However, doing so requires a better understanding of variables that contribute, both positively and negatively, to what matters most to learning. The National Center for Public Policy and Higher Education concluded in Measuring Up 2000 and Measuring Up 2002 that a lack of information permitting systemic or systematic comparisons on the impact of college on students has resulted in little knowledge about student learning. As a result, the authors of Measuring Up 2002 called upon national and state efforts to create more powerful measures of educational performance by assessing student learning (National Center for Public Policy and Higher Education, 2002). Where the traditional "quality measures" (e.g., selectivity in admissions, the number of PhDs among the faculty, library holdings, financial resources, and institutional prestige from faculty research) used to articulate an undergraduate education were once accepted, they have become increasingly suspect in terms of their validity to measure excellence in undergraduate education (Kuh, 2001; Pascarella, 2001). A 1995 report by the Education Commission of the States, Making Quality Count, criticized these often used "quality" measures, stating that these factors say nothing about how and why students were actively engaged in the learning process, the extent and nature of student interactions with faculty, the focus and intensity of academic experiences, and the overall level of student engagement (Pascarella, 2001).

8.1.7 Social Problems

The important and generally positive relationship between education and social development (or development for short), in other words education leading to, and sustaining select platforms of life that enhance people's tangible or perceived notions of well-being. Education has to develop individuals socially strong and connected to norms, cultural values and ethical consideration. While formulating education policies and planning, it is important to consider social dimensions and Pakistani educational polices

do emphasized on social development factors but implementation of these policies and planes at classroom level is still a problem. There is a huge communication gap between policy maker and implementer which are outlined below:

- **Lack of Moral Training in Higher Education Institutions**

Higher education institutions must trained and educate students on high moral grounds that must reflect basic principles of regional set in a context. Higher education in Pakistan is unable to create awareness and enable students to practices moral values that have positive implication for society at large. When we reflect on the current situation of Pakistan, corruption is major challenges that is directly linked with moral training and most of the people involved in corruption are well educated and have attended higher education programs.

- **Promoting Westernization on the name of Modernization**

It is also important to educate students of higher education to understand modernization. Modernization is a process of updating knowledge and exploring news trends and ways of doing things differently and innovatively that are beneficial for human being. These new trends and ways bring comforts and improve economic condition of people living in a county. In contrary, in our colleges and universities, modernization is considered as westernization and adopting practices from other countries that may not be suitable to Pakistani context, for example, dressing, smoking, addiction of drugs is the area well describe westernization in the name of modernization. Students think that following these practices is modernization but actually these are harmful practices for their lives. Hence higher educational institution need so educate student to understand the terms and concept clearly so that students are well prepare for real life and they respect and practices social norm with true spirits.

Activity:

List down challenges/problems of education and teaching at your institution. Identify the root causes of these problems and also suggest solution to these problems. While suggesting solution consider contextual realities, available resources and policy dimension

8.2 Examination

Examinations play an integral part in assessing the skills and knowledge attained by students as a result of studying a particular subject. Colleges and universities conducts both practical and written examinations in many higher education subjects, and expects students to be aware of the associated requirements of those examinations. This policy outlines the basic principles supporting examinations at the College and the expectations of both students and staff. This policy should be read in conjunction with the universities Assessment Policy – Higher Education which outlines the broader assessment principles of the universities.

8.2.1 Examination Principles

Examination Times are Advertised Widely
The Examination Timetable is published for all students on the ePortal and the LMS. Each Semester, students are notified of its publication via a notice on the ePortal and the LMS. Additionally, the date for release of the Examination Timetable is clearly outlined on the College-wide Student Calendar, available on the universities or colleges website. Examinations held in class time will not be shown on the Examination Timetable, but will be clearly outlined within the relevant Subject Outline.

Examination Instructions are Provided in Class
Any instructions specific to the examination are provided by the lecturer in the class prior to the examination being conducted. For example, if an open book examination is to be held in class the following week, the lecturer will outline how many pages of notes are allowed to be brought into the exam. If the examination is to be held in the examination period for the Semester, examination instructions will be provided in the last class of the Semester.

Quizzes are Examinations
Some subjects include multiple small examinations known throughout the universities and College as 'quizzes'. These quizzes are considered simply to be smaller examinations and should be considered by students to be just as important as final examinations.

Examinations Assess Learning Outcomes
Examinations will assess a student's grasp of published subject learning outcomes. Final examinations will assess most (if not all) learning outcomes for the subject, while quizzes and mid-semester examinations will assess only some learning outcomes. Examinations are also supporting faculty to identify the strengths and weaknesses of students in different discipline and based the acquired data faculty is providing feedback to the students for their improvement.

Only Certain Examinations are Deferrable
Only examinations which are worth 15% or more of the final grade for a subject are able to be deferred. All exams are mandatory for the students to appear in order to promote to next semester and also acquired data to provide feedback for the students for their improvement.

Examination Types are Varied
Throughout a typical course of study, students will undertake a variety of examination types including, but not limited to:
Written examinations:

- Multiple choice
- Short answer
- Extended response
- Case studies

- Essay questions
- Open book
- Assignments
- Projects
- Research papers

8.2.3 Practical Examinations

- Practical exercises
- A number of the above examination types may be combined in one examination.

8.2.4 Examination Papers are Unique

Every written examination is offered with an examination paper unique to that cohort and examination time. A total of three (3) unique examination papers are produced each time a subject is offered. This ensures that there are different papers for students sitting the exam at the scheduled time, the scheduled deferred time, and allowing for one additional examination time (e.g. a clash exam or special circumstances alternative exam).

Activity:

Download the article: Declining Education/Examination System; published in the Nation using below link: http://nation.com.pk/business/01-Aug-2016/declining-education-examination-system

8.3 Quality and Access to Higher Education

Higher Education Commission is trying hard to streamline the universities to adopt quality assurance mechanism to improve the quality of their teaching and research. An instrumental approach has been suggested by HEC to enhance the quality of higher education which begins by establishing a mission, followed by the functions that have to be carried out to achieve the mission and the objectives. A quality management system is then recommended to ensure the quality of the programs. Lastly, an internal system is proposed to assess the effectiveness of the management system. Best practice also requires that the implementation of the quality assurance programs preceded by a strong commitment on the part of the university leaders and managers to quality advancement (Tovey, 1992). An important reason is that it will improve the quality and relevance of their graduates and research programs and thus enable universities to play a more effective role in the economy of the country.

Higher Education Commission has established quality assurance agency to safeguard public interest by enforcing sound standards in higher education and encouraging continuous improvement by reviewing and developing higher education benchmarks and quality criteria. Rahman (2007) says that HEC lays a particular focus on the institution of quality enhancement, assurance, accreditation, mechanisms and universities across the country sustainable improvement in the delivery of higher education requires the

development of a mechanism for continuous self-monitoring and improvement of the system. The quality assurance initiatives improve the quality and relevance of the graduates and research programs, and thus enable universities to play a more effective role in the economy. The basis for this belief is that education contributes to economic growth in a number of ways. First, it improves generally the quality of labour by imparting skills and work knowledge. Second, it increases labour mobility and therefore promotes the division of labour. Third, it improves management skills which lead to more efficient location of resources. Fourth, it removes many of the social and institutional barriers to economic growth. Finally, it encourages entrepreneurship by promoting individual responsibility, organizational ability, moderate risk-digging, and long-term planning. The generation of new knowledge and efficient dissemination of existing knowledge is a key responsibility of institutions of higher learning (Siddiqui, 2007). Over 30% of the growth in per capital income may be attributed to technological innovation. According to the University of President's Council, (2001) most of the technological advances in the second half of the 20 century including new bio-technological industries, telecommunications, information technological, and advanced materials (such as semi-conductors, fibre optics, etc.) have their origins in university research (Saeed, Rafi, Ahmed, & Rauf, 2009).

Access to higher education is another chapter and state is responsible to establish universities particularly in rural areas where access to higher education is very limited. Poverty and unemployment are burning issues of Pakistan due to lack of economic resources communities cannot send their children to cities to get access to higher education. Government need to plan strategically to address these issues on priority basis.

8.3.1 Measures to Improve Access to Quality Education

The Pakistani government has made ambitious plans to achieve a threefold increase in terms of number of institutions and enrolments by the end of the current five-year plan. While this does seem achievable, there are issues which must be retrospectively and holistically measured and diligently handled so that the results may fall within the projected framework. In addition the government must put in place an effective monitoring system to ensure fool proof results in its endeavor to make quality higher education within the reach of all and more so to the under-represented communities.

8.3.2 Making a Realistic Financial Plan

This is imperative for the government before setting any unrealistic goals as financial planning becomes the key factor in achievement of all objectives. Any mismatch between budgets and targets will lead to unsuccessful results. To implement realistic plans effectively relevant staff need to be inducted to achieve the desired results.

8.3.3 Infrastructure Development

While urban infrastructure has definitely seen progress, the rural sector still lies in dismal neglect over a larger proportion. The government must ensure proper physical access to these communities and emphasize on construction of higher education institutions in closer proximity to villages. Further ample focus must be given to development of

technology to enable education through Information Technology. In Pakistan, most of the rural areas are deprived of the facility of higher education institutions that is why the communities are facing difficulty to access to higher education. Likewise, in Pakistan literacy rate is already questionable due to lack of access to education institutions and poverty therefore government need to devise a practicable plan to address this issue.

8.3.4 Provision of Adequate Trained and Qualified Faculty

Student Teacher ratio must be brought up to an ideal level and all faculty must possess adequate qualifications and training before taking up education. Periodical refresher training is an unquestionable necessity to ensure adherence to performance standards. While updating curricula, the faculty must be acquainted with the newer studies and technologies to keep them abreast and conduct proper delivery.

8.3.5 Eliminate Ethnic Inequalities

Caste must be removed from focus and only economic backwardness must be made criteria for extending government support to all communities. Several individuals from the traditionally down trodden groups, even after having richly benefitted from government support continue to exploit the opportunities provided, preventing the real oppressed groups from any significant benefits.

8.3.6 Promote use of Internet and Communication Technology

Adequate emphasis must be placed on improvement of internet and communication technology as it enables easier access to information and educational content and facilitates better education than traditional methods. In Pakistani education institutions need internet facility with updated equipment's. Electricity is also an issue in Pakistan therefore government need to do proper arrangement of electricity to provide educational institutions to run their programs without any difficulty.

8.3.7 Enable Better Funding for Institutions

Government must provide sufficient autonomy and funding for all institutions with an effective monitoring mechanism to ensure appropriate infrastructure, facilities and aids to impart quality education. Through effective utilization of funds institutions improve quality education because to provide quality education quality resources are needed. Faculty of institution need timely support to implement their devise plans on daily basis.

8.3.8 Improve Financial Schemes Reach

This can be a shot in the arm to the weaker sections as the promise of higher education becomes closer. Traditionally backward sections have shirked away from higher education owing to their inability to bear the costs of higher education. But with genuine and easily available government financial aid, education becomes much more accessible across communities. Though there is ample funding on the government agenda, the complexities involved in obtaining finances makes them inaccessible to most lower groups.

8.3.9 Remove Overlapping of Authority

Regulatory bodies function across parameters often overlapping authority, affecting the delivery of quality education. Since education is a subject of both the central and the state governments, there are frequent conflicts in several areas of education. The government must resolve such complexities and ensure proper delegation of authority for smoother functioning.

8.3.10 Make Curriculum Industry Oriented

The higher education system must provide for updating of curriculum over regular frequencies to help learning match industry requirement. This way employability skill would be better and so do the prospects. In Pakistan majority of institutions are implementing outdated curriculum which is not matching with the current industries requirement. Due to this reason, majorly graduates are not getting jobs after graduation. Second major issue in Pakistan is majority of education institutions are not planning for internship with close collaboration of industries in their degree programs. Internship is very important for graduates to acquired practical knowledge and experience by implementing their learn theories in a real context.

Activity:

Download the document from the blow link http://hec.gov.pk/english/universities/projects/TESP/Documents/FR-Assessment%20HE%20Sector.pdf Read the section 4. Recommendation on page 46 -47 about access to higher education. Add at least 3 points to these recommendations based on your learning and experience. And also suggest two steps to ensure quality at higher education.

8.4 Teacher Training

An interesting question is if teacher training has an effect on self-efficacy beliefs and approaches to teaching. There have been discussions about academics' need to participate in training to support their teaching roles. However, there is an absence of evidence of the impact of training on teaching behavior (Coffey & Gibbs 2000; Norton, Richardson, Hartley, Newstead, & Mayes, 2005). Coffey's and Gibbs's (2000) study revealed that teachers in universities are showed significant improvements in scores measuring learning, enthusiasm, organization and rapport measured by the Student Evaluation of Educational Quality (SEEQ) questionnaire, after one semester of two- and three semester long training programs. Using the Approaches to Teaching Inventory (ATI; Prosser & Trigwell, 1999) in 22 universities in eight countries, Gibbs and Coffey (2004) studied the effectiveness of university teachers' training. A training group of teachers and their students were studied at the beginning of their training, and 1 year later. The training group became less teacher centered and more student-centered by the end of the 4–18 months training. In addition, their teaching skills improved significantly after the training as judged by students (measured by Student Evaluation of Educational Quality and the

‘‘Good Teaching’’ scale of the Module Experience Questionnaire MEQ). Their students took a deep approach to learning, to a greater extent, after their teachers had been trained, although this change was small. However, this study suffered from several drop-outs, and the authors point out that they are not in a position to demonstrate whether it was the training itself that resulted in the positive changes.

Despite this studies Norton et al. (2005) consider the effect of teachers’ training in higher education questionable. They note that there is only little evidence to show that training would have an effect on teaching behavior. They made a study of university teachers in the UK, using a questionnaire measuring different aspects of teachers’ beliefs and intentions, concerning teaching in higher education. Fifty teachers had taken a program on teaching and learning in higher education and the other group of 72 teachers had no training. They found that there were no significant differences between the two groups on scales measuring teaching beliefs and intentions. These results suggest that genuine development will come about only by addressing teachers’ underlying conceptions of teaching and learning. It can be noted, there is some debate on whether teacher training in higher education has an effect on teaching or not. This study is an attempt to bring more information to this discussion by examining whether the length of training of university teachers has an effect on approaches to teaching measured by the Approaches to Teaching Inventory and, furthermore, on self-efficacy beliefs. Teaching experience might have an effect on the results concerning the effect of pedagogical training. Due to this, the effect of teaching experience on each scale is examined, and finally the unique effect of pedagogical training on each scale is examined by holding constant effect of teaching experience.

Teaching philosophy: a reflective statement describing personal teaching philosophy, strategies and objectives, methodologies. Documentation of a basis repertoire for teaching groups of different sizes in different settings. Argumentation for and use of different types of formative and summative assessment for different purposes. Demonstration of self and peer assessment through reflection based on observation of teaching and educational theory. Demonstration of general ethical knowledge and competence as insight in “ethical guidelines for student counselling and the knowledge of student rights

8.4.1 Professional Development and Orientation Programs

Professional Development and orientation activities are very important for higher education teachers to enhance their competencies and thinking skills. Professional development and orientation programs need to include multiple courses, modules for teachers and management staff, research papers, refresher courses that will be implementable in different training programs. The process of development of a comprehensive Professional Development Courses has to be carried out in order to produce pertinent and relevant source material in the field of teacher’s education and training. Teachers’ professional education is viewed as one of the most important factors in improving students’ learning. Keeping this in view many developed and less developed countries pay significant attention to improve the practices of teacher

education. In order to develop capable teachers, they make conscious efforts to establish and maintain quality teacher education institutions.

Activity:

Read the article published in Down using the below given link. https://www.dawn.com/news/776648 After Reading this article discuss the difference between B.Ed. Hon/ADE and One year B.Ed. program offered in different Teacher Education Institutes.

8.5 Discipline (Politics)

Public comprehensive institutions are controlled by a state governance system, have historically been funded primarily from state taxes, and have a tradition of low or moderate tuition charges. Many were founded as teachers colleges (normal schools), and the strong emphasis on teaching and teacher education continues.

Activity:

Read article: Politics in Education; using the below given link; written by Dr. Shahid Saddique in the daily news https://www.thenews.com.pk/print/100021-The-politics-of-education Respond the key aspect discussed in the article.

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Unit–9

INNOVATIONS IN HIGHER EDUCATION

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Introduction

In the present era of knowledge driven economy, role of higher education has become even more critical. In every society, higher education institutions are trying to improve their quality to perform their role in knowledge generation and knowledge dissemination. Over the period of time, higher education system across the globe embraced many innovations. Alternative models for example distance and non formal education became widely accepted and use of these models in higher education sector became very popular. Technological innovations played a significant role in reshaping higher education systems and strategies. Technology integration in development, design and delivery of higher education is at the heart of all higher education policies and plans. In order to improve quality of teaching at higher education level, it has been felt to align teaching strategies with the learning styles of students. Moreover to cope with the trends and issues of the recent time, lifelong learning has become a major area of concern and efforts are being made to provide opportunities for lifelong learning. This unit deals with all these innovations in the systems of higher education.

Objectives

After studying this unit, prospective teachers will be able to:

- critically discuss the role of distance and non formal education in expansion and development of higher education
- analyze the implications of Learning styles of students for effectiveness of higher education.
- explain the need and scope of technological innovations in the sector of higher education
- suggest ways to integrate and make best use of technology in teaching and learning at higher level
- discuss the nature, concept and ways of continuing education and lifelong learning

9.1 Distance and Non Formal Education

In literature, unconventional education systems are frequently mentioned as "open systems", "non-formal education", "distance learning", "non-conventional education" etc. Mostly these terms are employed as synonyms making it confusing and impractical to reach to a certain consensus. A brief but comprehensive definition of each of these concepts is necessary. We will try to analyze the concept and nature of formal, informal and non-formal education systems in order to clarify their salient features, implications and limitations as well as interrelationship among these systems..

9.1.1 Formal Education

Formal education system refers to an organized and systematic system that is structured and administered in accordance with the pre-specified set of policies, rules and laws. The system is systemic and organized in terms of objectives, curriculum and instructional methods that essentially involve a teacher, students and the institution itself. Formal education systems are based upon group needs rather than individualized needs and the content.

9.1.2 Non-Formal Education

As the system of formal education has a specified set of norms and features. Whenever in any system one or more of those features are is absent, we can name that system of education being non- formal. As a result defining non formal education system is particularly difficult. There are numerous definitions of non-formal education, one of the most popular definitions is the one proposed by Coombs, Prosser and Ahmed in 1973. This definition consigns Non Formal Education a unique position in the educational world and is considered the classic definition.

" ... formal education ... (is) the institutionalised, chronologically graded and hierarchically structured education system, running from lower primary school to the upper reaches of the university, generally full time and sanctioned by the state; non-formal education ... (comprises) all educational activities organised outside the formal system and designed to serve identifiable clientele and educational objectives ... with all remaining educational activities being categorised as informal education ... (is) the lifelong process by which every person acquires and accumulates knowledge, skills, attitudes and insights from daily experience and exposure to the environment..." Coombs, Prosser and Ahmed (1973)

For Further Reading:
Spronk. B (2010) 'Non Formal Education At A Distance: A Framework For Discussion.' Available at http://www.assonur.org/sito/files/non%20formal%20education%20at%20a%20distance.pdf

Non formal system of education basically dwells in the central position between the conventional or formal education and informal learning experiences, without exclusively

obvious boundaries. Non-formal education occurs when the educational strategy does not require students' attendance, lessening the contact between students and teacher and most of the learning activities take place outside the institution - as for example, home reading and assignments etc.

In view of its scope it can be said that non-formal education is comprised of many diverse educational scenarios, many of these scenarios played a significant role in reshaping and renewing educational systems. Three major educative processes under the umbrella of non-formal education are "**correspondence learning**", "**distance learning**" and "**open systems**.

9.1.3 Informal Education

Informal system of education is relatively different from formal education system and, predominantly, from non-formal system of education. This System of education is not regarded as a systematic and organized system and does not essentially consist of the educational objectives and subjects that are part of traditional curriculum. There is generally no control over the activities that provide learning experiences, as a result informal education is not meant to provide degrees or certificates.

Informal education includes numerous activities for example visiting some museums or exhibits (b) reading magazines, journals and newspapers (c) listening radio broadcasts or watching TV programs (d) attending seminars, lectures and conferences.

9.1.4 Distance Education

Distance education system is one of the core types of non-formal education. This system of education refers to an educational process characterized by distance between the teacher and the learners. In other words all or most of the teaching learning activities are happing with presence of distance between the teacher and the learner. Teaching is being conducted by a person separated in space and/or time from the learners. During this teaching learning process communication between learners and the teacher occurs through some artificial medium of communication that can be either electronic, print or the both.

Michael Moore has defined distance education system as "the family of instructional methods in which the teaching behaviours are executed apart from the learning behaviours including those that in a contiguous situation would be performed in the learner's presence, so that communication between the teacher and the learner must be facilitated by print, electronic, mechanical or other devices".

'Providing education at a distance' is the simplest definition of this concept. It can vary in is forms. In late 1800s distance education was through correspondence courses. Today distance education is provided through technology- e-learning, virtual education or online education are basically the methods of teaching under distance education where the learners and teacher are separated by space, time or both.

Distance education as defined by The US Department of Education is "the delivery of instruction over a distance to individuals located in one or more venues." National Education Association (NEA) has defined distance education in these words "courses where more than half of the instruction taking place is when students and faculty are in different locations."

9.1.5 Advantages and Limitations of Distance Education?

Currently, an extensive literature is available to justify that formal and conventional systems of education have proved to be inadequate and ineffective to cater the needs of individuals as well as of societies. There is a increasing demand for more and better options of education at all levels. Educational needs of a large number of people, mainly in the developing countries calls for the expansion of distance and non formal education.

Like every educational system, distance education system has certain pros and cons. However many experts agreed upon and sufficient empirical evidences are there to prove that the advantages associated with distance education system are much greater as compared to the limitations of this system.

Followings are some of the advantages of this system of education:

Flexibility: The key advantage of distance education is its flexible nature. Distance education provides opportunities for people who may have difficulty in attending a formal institution like mothers, professionals, and individuals working full time as well as members of certain organizations. Most of the distance education programs allow studying people at their own place, at least for most of the time so they can easily fit their education into their schedule. Flexible nature of distance education programs give chance of continuing education without effecting or disturbing personal or professional life of a student.

Convenience: The most important benefit of distance education is that an individual can easily pursue his/her education during any time of life. There are no restrictions on the basis of age, locale etc. A person can study from anywhere he/she lives, if choosing for distance education programs. As a result options for education are greatly expanded.

Affordability: Distance education programs are economical both in terms of money and time. Not only the fee structures are not much high but it allows saving money by many other ways like no commuting etc. These programs do not necessitate for regular classes that saves time in commuting as well.

Self- Paced Learning: Distance education programs allow a student to study at his/her own choice and with his/her own pace. Students can complete their studies at their own time and pace. As there are no regular classes, students can complete the course at their own pace. Studying at their own pace and convenience reduces stress and enhances learning.

Learning while working: Distance education courses/ programs can easily be done on learners schedule, this gives learners the opportunity to continue education without sacrificing his/her job. Distance education programs can be much more easily completed while working as compared to formal or traditional educational programs. This is a great advantage from another angle as well continuing a job while completing education gives you more stability, financial assistance and experience and you do not need to worry about these things resulting in more efforts and focus towards studies.

Considering all the above mentioned and many more benefits of distance education programs, one may feel uncertain whether this system of education has some disadvantages as well. There are certainly some limitations of this system as well.

Less Interaction: Distance education system is usually characterized by less interaction between teacher and students and among students as well. In distance education system, there is little communication with the classmates and as a result working in groups or group study becomes difficult, one student just has to do by himself/herself which sometime has adverse effects on learning. Fewer chances of interaction and oral communication with teacher lead towards misconceptions and confusions creating hurdles for effective learning. Although now with the help of information and communication technology more chances for communication and interaction are there like use of emails, discussion boards, online chat and conferencing etc. Role of communication and interaction is inevitable for effective learning and considering the significance of interactions for developing collaborative skills and critical thinking, most of the distance education programs now offer e communication opportunities like online forums, chat rooms and discussion boards etc. Though, as a matter of fact it is only a partial substitute for real classroom interactions.

Challenges of Technology and accessibility. Although distance education programs provide good opportunities to learn and use latest technologies but use of technologies have its own challenges. It becomes a real challenge for people not good users of technology. An electronic gadget like personal computer with good Internet facility will be required for establishing and maintaining interactions in distance education programs. Moreover it requires careful planning and involves huge costs to set up for tools and facilities like live video communications particularly for high tech distance education programs.

Cost Effectiveness: Distance education programs may be more cost effective for students but not on the part of institutions. Institutions offering distance education programs can save money on physical infrastructure. But, to start up a high-tech distance education program would be expensive as well and technological infrastructure can cost even more as compared to physical infrastructure. Moreover the cost for continuous updating, development of new materials and providing latest technology would involve a lot of cost.

No Immediate Feedback: Distance education programs do not involve regular classroom interaction as a result a student cannot get the feedback immediately. Distance learners have to wait for their teacher's feedback after they have done with reviewing the task. This format of delayed feedback is not suitable to for all learners.

Need for adaptability to new technologies. Individuals who are not technology friendly may find it difficult and challenging to adapt to new technologies. Communication without latest technologies in distance education is not possible so the system suits to those who like to use and be up dated in technology.

Despite many challenges and issues distance education particularly in the context of higher education has an indispensable role to play and without distance education programs expansion of higher education is out of question. Moreover the inflexible structure of formal schools, mainly based on strict laws and regulations rather than the needs of learners; obeying a rigid set of clerical-administrative procedures, has proved to be insufficient to meet individual as well as social needs. Non-formal and distance education provides a best alternative to those who for some or the other reason do not adopt formal education system and thus it plays a unique role in promotion and expansion of higher education in a society.

Activity:

Conduct interview of 3-5 students enrolled in some distance education program and explore their perceptions about these programs and the challanges they are facing.

For Further Reading

Shlomo Romi (2010) Distance Learning and Non-formal Education: Existing Trends and New Possibilities of Distance Learning Experiences, Educational Media International, 37:1, 39-44, DOI: 10.1080/095239800361509

9.2 Learning Styles at Higher Education

Learning is a complex phenomenon and for centuries researches, educationists and psychologists are attempting to explore different dimensions and perspectives of this phenomenon. In this context, emergence of the construct of learning styles proved to be a major hallmark as people accepted the idea that learning style is one of the major determinants of the way one learns so the idea gained a lot of attention by researchers, educationists and the general public.

9.2.1 Concept and Nature of Learning Styles

The term 'learning styles' has been used extensively in education, pedagogy and psychology since 1930. But interestingly defining learning style is not as simple as it seems and many theorists defined the concept in different ways. Generally the term learning style refers to the specific way in which an individual learns. However as

researchers and theorists have focused on diverse aspects of learning styles, a wide variety of interpretations and definitions has been proposed. For example Della-Dora and Blanchard viewed learning styles as (1979, p22) "a personally preferred way of dealing with information and experiences for learning that crosses content areas", they emphasized on the aspect of information processing. In contrast to this definition, Claxton and Rolston (1978) defined learning styles as "the students' consistent way of responding and using stimuli in the context of learning" (p1) here the major focus is on sensory perception aspect of learning. One comprehensive definition given by David Kolb is 'Learning Style' as: "a result of hereditary equipment, past experience, and the demands of the present environment combining to produce individual orientations that give differential emphasis to the four basic learning modes postulated in experiential learning theory" (Kolb, 1984). Rita and Kenneth Dunn (1993, p2) define learning styles as "the way in which each learner begins to concentrate, process and retain new and difficult information.

Based upon these definitions is clear that learning styles are individualized and every individual approaches learning in a different way.

Activity:

Activity: Critically analyze different definitions of Learning Styles and find out different aspects of learning styles as emphasized in various definitions

For Further Reading

Boneva D. (2014) ' Learning Styles and Learning Preferences: Research Discovery available at http://dyscovery.research.southwales.ac.uk/media/files/documents/2014-01-16/Module_8.pdf

9.2.2 Significance of Learning Styles

Identification of learning styles and research on the area of learning styles are considered important milestone in education. Learning styles have become a concept having valuable contribution in provision of effective learning experiences and leading towards better learning. Many educationists and researchers viewed learning styles as a significant field of consideration and investigation, especially when learning-style theory advocates that instructional process needs to be congruent with students' learning styles in order to make them learn effectively.

Oxford and Crookall (1990) as cited in Boneva (2014) also emphasized upon the importance of taking learning style into account. In this regard they suggested that as visual learners would prefer to learn using visual imagery. They should be provided with pictorial-verbal combination instead of giving vocabulary in isolation.

Sufficient literature is available to support that learning styles are the major determinant of effectiveness of learning. If learning styles are ignored during teaching learning process, this will have adverse effects upon learning.

9.2.3 Learning Style Models

There are a vast variety of Learning Style Models on the basis of personal characteristics and factors which may control an individual's way to learn.

One of the most popular and commonly used models of learning styles is ***Fleming's VARK model.*** VAK is an acronym for Visual (V), Auditory (A), and the Kinaesthetic (K) sensory modalities. This model provides learner with a profile of his/her learning style on the basis of sensory modalities involved in receiving information.

This model is based upon the theory of Neuro-linguistic programming (NLP). In NLP theory senses are divided into three main groups namely visual, auditory and kinaesthetic. These groups are referred to as Representational Systems (rep systems). This term denotes the fact that human brain utilizes the senses to construct internal representation, or model of the world around us. Individuals have a preferred learning style which sometime may be even blend of all three senses.

Some learners may have a strong preference for only one modality or style while others have may have a blend of two or three styles. It is very important to know one's preferred learning style as when an individual is aware of his or her preferred learning style(s), he/ she would be able to know the learning that suits his/her learning style. In fact some people better learn by seeing (Visual); while some others learn by hearing (Auditory); there are the persons who learn by doing (Tactile/Kinesthetic). It is interesting to note here that each individual advances through different stages of each style. Children are always inesthetic learners. Visual learning style and auditory learning style emerge later. Every individual is born with natural tendencies towards one dominant style. However, the dominant style may not always be the same in every sort of setting. It may be combined or even may vary according to the situation or the nature of the activity.

For Further Reading

Styles of Learning VAK. Available from:
https://www.researchgate.net/publication/317305325_Styles_of_Learning_VAK

Another popular model of learning styles is ***Kolb Experiential style Model***. Kolb's Experiential learning style model was proposed by David Kolb (1994). According to Kolb learning is a cyclic process and it involves four major stages namely 'concrete experience stage (CE), reflective observation stage (RO), abstract conceptualisation stage (AC) and active experimentation stage (AE).' Ideally but not always during a learning process a learner "completes all the stages". First stage that is immediate or concrete experiences stage refers when a learner goes through certain concrete experience. This experience leads him to observations and then reflections on the experience. These reflections are assimilated into abstract concepts with implications for action, which the

person can actively test and experiment with, in turn enabling the creation of new experiences.

On the basis of learning cycle according to Kolb learners can have four different learning styles. ***Diverging*** (feeling and watching - CE/RO) people with this learning style are able to look at things from different perspectives. Their preferred learning way is through watching rather than doing, they tend to assemble information and use imagination to solve problems. Kolb called this style 'diverging' because these people perform better in situations that require ideas-generation, for example, brainstorming. ***Assimilating*** (watching and thinking - AC/RO) The Assimilating learning style is concise and logical in nature. People with this style give much importance to ideas and abstract concepts. They are good at analyzing information and logically organizing it. ***Converging*** (doing and thinking - AC/AE) individuals with a converging learning style are good at finding solutions to problems. They mostly prefer technical tasks, and are less interested in people. A learner with a converging style would like more to do experiments with new ideas and to try practical applications rather. Than being involved in details and discussions. ***Accommodating*** (doing and feeling - CE/AE) This learning style is basically 'hands-on', and person with this learning style relies on intuition rather than logic. Accommodating learner uses other individuals' analysis, and would prefer to practically apply that information. He/She would commonly act on 'gut' instinct rather than on logical analysis. People with this learning style mostly rely on others for information and this learning style is prevalent within general population.

9.2.4 Learning Style and Teaching Approach

Teacher's awareness of students learning styles is very important. The effectiveness of teaching learning process depends on closely matching instructional techniques and teaching learning resources with the learner's learning style and preferences. By using variety of methods and resources such as auditory/visual as well as tactile/kinaesthetic, students will learn much better as compared to if one technique or resource is being used. 'Students retain 10% of what they read 20% of what they hear 30% of what they see 50% of what they see and hear 70% of what they say 90% of what they say and do' (Rief 1993, p.53). There might be different reasons of ineffective learning and some individuals struggling hard to learn. One potential reason may be that learning style is not aligned to the instructional method. Many students may remain disadvantaged by traditional instructional methods that do not correspond their learning styles. Therefore, it is crucial that teachers adopt teaching methods that cater to diverse learning styles making their teaching accessible to all. One way to achieve this goal is by using Multisensory Approach in teaching. Multisensory approach is an instructional activity where teacher offers simultaneous input or accepts output though two or more sensory channels. Through this approach learning styles of almost all learners can be accommodated and learners who gain learning experience via two or more senses are more likely to retain it.

If a teacher has insight into learning styles of students, he/she will be able to understand each learner's individual needs in a better way and would work specifically on the areas

in which that learner require additional support. Knowledge of learning styles will help the teacher to ensure effective learning through aligning his/her way of teaching to the styles and preferences of learners.

Activity:

Activity: Explore your learning style by some standardized inventory based upon Kolb model and analyze to what extent your characteristics are the same as described in the model.

9.3 Technology in Higher Education

Technology is having impact on internationalisation of higher education by exploring the new way to embed it in the teaching learning process. Reports and findings of the research focused upon the future of technology in higher education argues that technology has become an inevitable element of effective teaching and learning process in present era. Therefore, teacher educators and educational technologists are more inclined towards the planning for the integration of technology. Following are the major trends in Integration of Technology in Higher education.

Mid-Term Trends

1. Major mid terms trends are related to redesigning of learning space: in order to maximize active learning technology has remodelled learning space to 'smart rooms'. Smart classrooms are accommodative for deeper learning approaches.
2. Measuring learning: another important mid-term trend is continuous and error free assessment and evaluation of learning. In this regard some technology tools alike Learning analytics and visualization software are used to facilitate accurate measurements.

Short-Term Trends

1. Blending learning designs: Innovative online learning approaches and strategies for example flipped classroom can be used to align instructions with diverse needs of learners.
2. Collaborative learning approaches: Technology helps in using collaborative learning approaches through online communication. These approaches encourage both learners and teachers to use an interactive environment for working together on real-world challenges.

In strategic planning of short term and long term strategies for integration of technology there are many challenges affecting the adoption of technology in higher education. We start here with the challenges such as improving digital literacy and the integration of formal and informal learning. The challenges like achievement gap and the advancement of digital equity are to be addressed by enhancing competence of the teachers/instructors. There might be unforeseen challenges, that may be addressed as per situation arises.

These may include managing knowledge and rethinking the roles of educators. Working through these challenges will open up current barriers to advancing educational technologies in the future.

The researchers have also highlighted the technologies we are already beginning to explore and employ. Some of the mainstream technologies used by the educations and maybe seen in educational setup in future as reported by Weimer (2017) are:

1. Adaptive learning technologies: software and online platforms that adjust to an individual learner's needs and progress.
2. Mobile learning: smart devices that make learning portable, such as educational apps.
3. Internet of things: the physical world we live in, including classrooms, can be connected to the internet through technological gadgets.
4. Next-generation learning management systems (LMS): software and web applications that create a flexible and personalised online community for course materials, faculty engagement and student participation.
5. Artificial intelligence (AI): it has the potential to further personalise the student learning experience by enhancing online learning and adaptive learning technologies.
6. Natural user interfaces: allow users to interact with technology by using natural physical gestures such as taps, swipes, body movements, facial expressions, *etc*.

While technology continues to shape international higher education, it's important for practitioners to keep on top of future advancements. Therefore it is imperative for the learners and the teacher educators to keep them updated about the recent advancement and discuss them for integration in teaching learning process for enhancement of the learners' engagement.

Activity:

Students should be asked to write a note on the ways technology aid the international education experience, from recruitment and admissions in any of the educational institution of their choice.

9.3.1 Engaging and Empowering Learning through Technology

By the use of we have an opportunity to make learning more directly relevant by aligning both content and learning approaches with the immediate and long-term needs and interests of learners, and the situations in which they will need to use what they have learned. For example, technology allows learners and instructors to identify and utilise resources and expertise anywhere in the world. This ability can be particularly helpful inexpanding opportunities for historically disadvantaged students by providing equity of access to high-quality learning materials, expertise, personalized learning experiences, and tools for planning future education or career pathways. The flexibility of the time and space in learning leads towards the empowerment and enhanced engagement of the learners with the content and concepts.

9.3.2 Technology-Enabled Learning in Action

Technology has potential to improve and enhance learning in the following ways.

1. Technology enables students to access learning opportunities apart from the traditional barriers of time and place. This is especially important for adult learners and traditional students with conflicting priorities who need flexible learning opportunities. Instead of assuming all students will adjust priorities such as work and family obligations around course scheduling constraints, institutions can establish schedules that allow students to access courses in the evenings, provide flexible degree pathways so that students can complete a degree program outside the traditional semester-based framework, or work with alternative and online education providers to develop courses as series of shorter learning modules that can be engaged remotely or on mobile devices.
2. Technology allows learners access learning opportunities outside of formal higher education institutions, such as at their workplace or in community settings. Learners may employ technology to validate their experiences, demonstrate their learning, and get credit that helps them in promotion at workplace or getting opportunities for further education. Technology allows students to access high-quality learning resources, regardless oftheir institution's geographical location or funding.

Institutions with limited access to equipment, laboratory supplies, and other learning resources may be assisted to address these shortfalls by providing high-quality online resources that align with requisite learning outcomes. Some institutions also focus on development of materials that are openly licensed and/or free to use, thus significantly reducing the cost of access for learners. In these cases, institutions need to also prioritize providing their students equitable access to devices and the Internet. When they do, students can also participate in discovering and sharing relevant open resources.

9.3.3 Technology Enables Learning Experiences through Blended Learning

Technology can be used in number of ways to provide the learning experience both in distance and blended modes of education. Here are some of the ways the educations are using the technology to provide enabling learning environment.

- Technology helps in providing active learning environment and data based instant feedback on their progress can be coupled with high-quality, face to face interaction with teachers and peers to improve overall efficiency. It also provides opportunities for learners to embed digital and face to face learning, accessing resources via digital technologies and completing some activities at their convenience and participating later in group discussions or activities.
- Technology supports learners in their learning based on individual academic and non-academic needs through personalization.
- Technology may be useful for instructors to address learners needs such as advance them to mastery, accounting for their different strengths, levels of prior knowledge, and interests. It canalso give learners personalized feedback and prompt instructors to initiate interventions

- Such as additional lessons or suggestions to enable course and program success. Technology can also efficiently connect students to non-academic support to help them manage life challenges that might otherwise interfere with their learning.
- Technology can ensure that students with disabilities participate in and benefit from educational programs and activities.

Overall it may be noted that technology to reach its full potential to engage and empower learning, education stakeholders must focus on using it to improve learning outcomes, create new types of transformative learning experiences and delivery systems that better serve students of different circumstances, and collaborate across institutions, educational providers, and other key stakeholders to ensure that system- and ecosystem-wide goals are achieved. On the other hand technology can be used to complement the instructor interaction and the available academic and non-academic support. Educational technology developers should build tools and capabilities into educational technology solutions that can provide diagnostic insights into student learning and generate real-time, actionable data that can be used by students, instructors, and other stakeholders to improve learning outcomes. When developing software or digital content, developers will benefit by providing greater transparency about their software's accessibility features and alignment with standards. Future researchers should focus that how different types of students learn and the circumstances under which the application of technology is effective for different types of students.

9.3.4 Technology to Transform Learning

According to US Future Ready Learning Report (2016) instructors should use technology to transform courses into more personal and engaging learning experiences by using digital materials to increase access and create opportunities for collaborative and project-based learning. Education technology developers and other stakeholders should work to adopt standard of learning resource design to help educators select and evaluate learning resources for accessibility and equity of learning experience. This sets the expectation that materials that are born digital also can and should be accessible, and that producers and users of digital technology should adopt a standard framework and language for producing accessible educational materials.

It should also be realised that the goals, interests, and learning needs of students are diverse and maybe addressed by multiple entities. Policymakers should continue to provide the flexible ways to learning that may adjust the variety of learning styles.

9.3.5 Teaching with Technology

Excellent instructors inspire learners to fully engage and do their best work. Experts in use of technology focus upon learning science and deep discipline knowledge to create high-quality learning experiences. However, instructors in higher education face complex challenges that are unique to their environments. While instructors at all levels are charged with responsibility for the success of students from diverse educational and socioeconomic backgrounds and with a variety of academic and non-academic needs, higher education instructors often must balance teaching responsibilities with research

and service priorities. In addition, some may lack robust access to support resources. Higher education institutions should promote students access by supporting educators, including faculty, contingent faculty, and other instructors, indeveloping research-based, technology-enabled teaching practices, analyzing and interpreting formative learning data, and effectively using data-driven student support systems. With the purpose that it will allow the learner the conducive and flexible learning environment.

9.3.6 Role of Instructors in Technology-Supported Learning Environments

High-quality teaching results when instructors are intentional about pedagogy and integrating research on education and learning into their courses. In technology-supported learning environments, instructors can leverage learning systems assessment data to guide future practice by understanding how instruction and resources impact learning for students.

In addition, with technology, instructors can enhance their relationship with students and the relationship students have with their peers and their learning. Instructors can also empower students to become co-creators of their learning experience by using engaging digital resources that can be accessed within and outside the classroom. Classroom experience provides actionable, real-time data on student performance, suggest academic and non-academic interventions, and create avenues for personal connections between students and instructors. The implementation of technology can serve as a catalyst for intentional planning in the practice of teaching that leads to improved learning outcomes for students.

By integrating technology the instructors may engage the learners in number of ways. But ample amount of time and effort is required for the development of well sequenced and pedagogically sound learning environments. Following are some descriptions of promising practices that can help elevate teaching at higher education level.

1. Institutions can foster ongoing professional learning for instructors that supports them in developing their skills as users of technology for teaching in online and blended environments and enhances their knowledge of research-supported teaching practices. Professional development centres may provide ongoing support to faculty to enable a range of assistance, from the availability of instructional designers and technologists to advise for faculty on how to build their courses to providing production support for modules or full online courses.
2. Institutions may invest in research on their own instructional practices and apply promising practices to course design.
3. Institutions may create new career ladders for faculty and instructors who master technology in teaching.
4. Professional recognition programs for instructors leading in implementing and evaluating new technology for both quality and cost-effectiveness.

The availability of technology for teaching is one thing and the use of the technology at appropriate time is another, positive attitude for the use and integration of the technology

may be more helpful for instructors and consequently the learners at higher education level.

9.3.7 Technology-Enabled Assessments in Action

Integration of technology has opened new horizon for authentic assessments across a broad range of subject areas, applications, and students at scale. Followings are some of the opportunities the instructors may use to make the assessment more reliable and valid.

- Technology-enabled assessments can allow more precise measurement of student learning against clearly mapped competencies. In addition to providing students with transparent documentation of their learning progressand skills attainment, technology-enabled assessments can be documented, verified, andmade portable across the various stages of a student's education and career.
- Data-rich formative assessments can provide feedback on student progress to students, peers, and instructors. Data can provide students with feedback on how toproceed toward mastery, including through portfolio creation, participation in challenges, projects-based learning activities, games, simulations, and advanced analytics.

Technology-enabled, coherent assessment systems may help to eradicate malpractice in the higher education system. More open assessment systems allow monitors to review both the basis and implementation of the assessments activities. They may have access to results so that its alignment with the results of other disciplines and standards should be established. Therefore there is a need that institutions and instructors should collaborate to transform assessments by creating high quality, technology-enabled authentic assessment activities that allow learners to simulate real-world experiences. Researchers should develop collaborative networks that evaluate and improve the effectiveness of assessments by collaborating the other stakeholders to address their needs and to satisfy them with the transparency and the authentication of the system. This will consequently help to reframe the approach to assessment in education. Overall it has been seen that technology has crept in all the components of education, so it is compulsory that curriculum developers should make the curriculum flexible for integration, teachers/instructors should be competent enough to integrate it at appropriate time. On the other hand student support is mandatory for successful integration.

Activity:

Activity: Prospective teachers should be assigned to develop a plan student support system for integration of technology in any of education program.

Further Readings:

U.S. Department of Education, Office of Educational Technology, (2017). Reimagining the Role of Technology in Higher Education: A Supplement to the National Education Technology Plan, Washington, D.C.

9.4 Continuing Education / Life Long Education

The term lifelong learning stands for a consistency in learning over one's life in and beyond formal educational settings that means there are many common ways in which learning takes place. Such as there is a drive to credit the personal experience of individual towards certification. Children and adults have different kind of learning and developmental needs that demand different kind of strategies. In future if a person is not learning he/she may remain behind and could not cope the challenges of the life. This situation demands and highlight the importance of the continuing education. The individuals have to develop and improve the skills for adapting changing context of the world.

According to Collins (2009) that drive of lifelong learning started by Knowles, viewed education as life long process, has become the basic principal of adult learning. Duyff (1999) agreed that lifelong learning (LLL) is most common term in education and is stated as any kind of learning or teaching that extends or builds upon previous experiences in the same general realm of knowledge. It is also referred as all activities and efforts by learners to improve their skills and knowledge to meet the desired needs arose at work place or in their area of interest.

In literature the educationists have used the terms Continuing Education (CE), professional development and Lifelong learning with same meaning that focus on the development of the individuals/workers/professionals based on certain training or education for the success of the organisation or the individuals. In twentieth century the educationists and researchers have focused more towards continuing education because of drive of industrialisation. The demand for CE and achieving necessary skills has been aroused, challenging previous educational venues and creating opportunities for both professional and personal skill improvement. In current situation there are many reasons to justify the demand of continuing education such as quick changes in technology, enhancement of global competition, meeting the needs of the diverse community and demand for new skills.

According to Fleming (1997) developmental and learning needs are felt more important for adults as there are very few opportunities for the adults to learn at work place and if they have these are very informal. Which make the later life of the individual much harder and time consuming. In this fast world, time is considered as money, so a skilled person may save his/her time by using the appropriate time. Due to this reason industries and institutions are more inclined towards continuing and lifelong learning.

With the change rapid change in environment due to technological innovations, lifelong learning help individuals to enhance skills compulsory for survival. It means that people should learn to survive and how to live. Peoples continuously learn, gain knowledge and new skills in schools, at home, on the job or in the community. When members of the community are engaged in learning by all mean and all stages of life, it is referred as continuing education. In United States and Canada it is named as further education

where as in other countries it is considered as lifelong learning. But the basic concept behind is that learning takes place almost at all times in anywhere, according to Rojvithee (2005) different stages are:

- **Age 0-5 years:** At early ages of life, a lot of learning takes place that prepares a foundation for further learning in future. Learning in these ages is mainly informal, occurs in children by copying almost everything from their parents, peers and contexts.
- **Age 6-24 years:** At these ages learning takes place in educational institutions, from primary and secondary to tertiary levels. Individuals learn form family life, social organizations, religious institutions, and mass media.
- **Age 25-60 years:** Adults learn informally mainly via the use of instructional media: from their jobs, work environments, colleagues, touring, mass media, information technologies, and nature. They learn from their experiences and ways of problem-solving. So, they demand to continuous development of intellect and steady improvement of skill.
- **Age 60+ years**: People in elder ages learn a great deal from activities suitable to their age. They can learn from art, music, sports for the elderly, handicrafts and social work. They can also participate in voluntary works in community organizations, clubs and associations.

As we have gone through the stages, it is observed that learning has been taken different forms like formal, informal and non-formal learning. Tissot (2004) defined these stages in the following ways that may be helpful to understand its nature and utilisation in higher education as well.

1. **Formal learning:** It is learning taking place within the premises of the institution, and occurred in well organised and structured way. It lead to certification like diplomas and degrees.
2. **Non-formal learning:** It is executed in the form of planned activities, it is not explicitly designed and structured as that of formal learning is the learning. But mostly it is learning like vocational skills gained within the working environment. Distance learning and blended learning are the examples of non formal learning. More structured forms have been erupted due to enhanced use of educational technology.
3. **Informal learning:** Learning associated with the daily life activities and referred as experiential learning. Every individual learn from the family, peers and friends, even at work place and during leisure activities.

Activity:

Formulate a plan for the individuals who couldn't continue formal education after graduation due to early job. Select any profession of your choice and formulate comprehensive plan for professional development.

On the other hand it is necessary to understand that continuing education is beneficial for all persons and society and contribute towards national economy. The following are the ways to impact the individuals life, society and country.

1. It helps the persons in gaining knowledge, skill and develop attitude towards national development.
2. It also help people to be more productive and innovative for the society. A constant change and improvement in skills is the key feature of continuing education. Therefore those who want to cope better with the demands of workplace changes, are those who constantly learn new skills and train for new challenges.
3. It is helpful in development of the economy of the nation by providing opportunities to workers for acquiring more skills, knowledge and abilities that leads to a higher capacity in the economy.

As per requirement and benefits of the CE let's consider some important features. Researchers have highlighted that flexibility of duration, learner-centered, approach, need based education, multi-level and multi-subject learning, and open access are the key features. As the population is growing larger. So, they have additional obligations such as work and family, for the most part. Therefore, a flexible learning framework is needed to enable one to learn at all times and all places. The features listed above are aligned with the needs of the adults, because they can learn while working. Therefore there is a need that flexible plan should be prepared. Because of the difference between individuals, there is a need to an adjustable pace and wayof study suitable to the individuals' capabilities. The adult learning market is going to become more competitive as well as full of opportunities, for both the existing institutions and new entrants. Combination of increasing competition and the requirement to keep updated professionally with a rising standard of living and more leisure time have made studying an ongoing process.

Along with its benefits there are some limitations attached with CE, we as an educators have to address these limitations as well. Some of the limitations are listed as under.

1. Which content should be taught (Conduct of Need Analysis is required)
2. Identification and level of target groups (Different Professions have varied nature of needs for professionals)
3. Selection of Teaching and Learning Strategies (Help from the professionals Required)
4. Assessment and evaluation (Appropriate tools for assessment required)

Lifelong learning is closely linked to prognosis of the educational phenomenon as well as to the long-term innovations in education. Due to the continuous and accelerated changes taking place in the society, the human being is also a subject to this transformative process, which requires an active and pro-active attitude. The concept of "Lifelong learning" concept is related to the open educational systems and variety of techniques to ensure the support and continuous development of capacities and competencies to deal with the emerging issues and developing as an independent and creative person. In this recent era, work force market pressures, unemployment and social trends and issues, lifelong learning presents a solution to all these dilemmas. The traditional approach of studying for a finite period of time to complete education before moving to the labour market is increasingly replaced by the continuous learning throughout the entire lifecycle of the individual.

Activity:

Activity: Conduct an interview of manager of any large organisation to identify the needs of the employees for lifelong/continuing education.

Exercise

1. Write a note on development of distance education in Pakistan and its role in promotion of higher education in the country.
2. Describe the prominent learning styles that may be considered while planning instructions for the higher education.
3. Explain the need and significance of the technology integration for optimization of learning at higher education level.
4. Identify different technological innovations in teaching and learning process, also prioritise these innovations as per its features.
5. Explain the need and significance of continuing education for enhancing higher education in the country.
6. Compare the terms lifelong learning, continuing education, further education and professional development in terms of skills development.

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