

Developing a Curriculum

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Summary

Objectives

Introduction

Previous Essential Reading dealt with the organizational principles in curriculum development. The key areas actually involved in developing a curriculum will be discussed in this Essential Reading. The Reading will commence with a preliminary description of the Setting for Learning. Current trends in curriculum reforms that will be listed next will indicate the areas that need to be emphasized in developing a curriculum. A discussion on National goals of the Sri Lankan Education System and the basic competencies to be developed to achieve these National Goals will follow. The types of data about learners, society, and knowledge that will be necessary for the task will be discussed next. This will be followed by a description of the different categories of needs that have to be identified, and the instruments that could be used for collecting data and identifying needs. After a brief discussion on the assessment and diagnosis of needs, different categories of aims, and the characteristics and qualities necessary for objectives to be effective and meaningful will be listed. The Reading will conclude with a discussion on the selection and organization of content and learning experiences.

4.1 The Setting for Learning

4.1.1 The Bases for Curriculum Development

A curriculum is planned, designed, and developed for educating an identifiable group of learners within a social structure. An initial phase of this activity is to look for data from various sources which could have an influence on the curriculum. Curriculum authors like Ralph Tyler, John Kerr, J. G. Saylor et al. have identified

- i. The learner to be educated;
- ii. The society which provides and operates the educational institution; and
- iii. The accumulated knowledge available and feasible for educating the learner

as three major sources of data or bases for curriculum development. In addition to these three major sources, the elements of the curriculum system depicted in Figure 2 of Reading 2 also include legal requirements, research, and professional knowledge as external forces which control and influence curriculum development.

4.1.2 The Setting for Learning

Two schematic representations of the Setting for Learning extracted from the First Report of the National Education Commission, Sri Lanka (1992) are depicted in Figures 1 and 2. These figures illustrate the ideas, perspectives, and linkages associated with learning and the learner. Home backgrounds are diverse. The school system is not homogeneous. Learners are heterogeneous with regard to their interests and capabilities and complicated with different needs. In this setting the child in the home or the pupil in the school cannot be treated as a unitary being. This is well illustrated in Figure 2.

Therefore the illustrations also give some insight into the diversity of the data to be collected and the needs to be identified and accommodated in the curriculum development process.

At a time when education is undergoing radical reforms, curriculum planners must be aware of current trends and major changes in the curriculum field in particular and in education in general. As we enter a world in which knowledge doubles in less than 5 years (the projection is that by the year 2020, knowledge will double every 73 days), it is no longer feasible to anticipate the future information requirements of individuals. We, as educators need to look differently and with greater depth at what learning is of most worth. As Michael Fullan (1993) aptly said, we need to take a ‘quantum leap’ in how we think about and develop curriculum.

4.2 Trends in Curriculum Reforms

It is useful at this stage, when we are discussing the data collection and needs identification aspects of curriculum development, to be aware of the ten Mega-Trends in curriculum reforms identified by a representative group of educators from Australia, Bangladesh, China (People’s Republic), India, Indonesia, Iran (Islamic Republic), Lao (PDR), Malaysia, Maldives, Myanmar, Nepal, Pakistan, Papua New Guinea, Philippines, Republic of Korea, Samoa, Sri Lanka, Thailand and Socialist Republic of Viet Nam.

At a Regional Study Group Meeting on Teacher Education organized by UNESCO Principal Regional office for Asia and the Pacific and held in Thailand in 1990, this international group of educators agreed that the ten Mega-Trends would serve as ‘gateways’ to education for the 21st century. Their Report (UNESCO – PROAP, 1992) declared that when applied to describe curricular reforms, mega-trends refer to those changes in the content, philosophical underpinnings and approaches of the school curriculum that do not come and go readily.

4.2.1 International Mega – Trends in Curriculum Reforms in the century

The ten Mega-Trends in Curriculum Reforms identified by the international group of educators are listed below:

1. Education for All;
2. Relevance of the Curriculum to the Individual and Society;
3. Development of Appropriate Values and Attitudes;
4. Development of Process Skills;
5. Concern with Meeting the Needs of the whole Individual;
6. Maximizing the Full Potential of Each Learner, Irrespective of Socio-Economic status;
7. Learner-Centred Learning and Teaching;
8. Mastery Learning;
9. Holistic / Performance Evaluation;
10. Coping with and / or Managing Change.

4.2.2 Areas to be emphasized in Curriculum Development in response to Mega-Trends

The expert group also identified the significant areas that need to be given emphasis in curriculum development. The areas of emphasis under each of the Mega-Trends mentioned above are given below:

1.
 - i. Learners are heterogeneous with regard to their interests and capabilities.
 - ii. Curriculum should cater for those with both academic and more practical interests.
 - iii. Learning is a life-long process, and not confined to those activities that occur in the formal school system or during the formal school years.
2.
 - i. Needs of the individual and society may not always coincide.
 - ii. What is taught in schools should seek to accommodate the needs of both the individual and society as a whole.
 - iii. The application and applicability of what is taught in schools should involve both the short-term as well as long-term needs and interests of learners.
 - iv. Issues / trends selected should be of local, regional, national and universal concern, and should be relevant to the needs and problems of the individual and the society in which he or she is located.

3.
 - i. Ensure that desirable attitudes and values are cultivated in the population (This may involve the instilling of an agreed-upon stock of acceptable core values and attitudes in some cases while in others it may stress an acceptance of a truly multi-cultural society).
 - ii. When there is a clash in values between individuals, and / or between the individual and society there is a need to teach about how to deal with conflict situations.
4.
 - i. Curriculum should just not involve factual recall, but also encourage and teach learners how to think for themselves, and how to develop the ability to move from convergent to divergent thinking.
5.
 - i. Learners are complicated with different needs that warrant serious consideration and development.
 - ii. Recognize the holistic nature of the learner and the fact that learner development is not standardized in terms of its nature, or in terms of the rate at which it occurs between different individuals.
6.
 - i. Identify and accommodate the particular needs and interests of disadvantaged population groups such as girls / women, learners from low income backgrounds, ethnic / racial minority groups and those living in isolated regions.
7.
 - i. Move from subject-centred to child-centred education, in terms of both curriculum content and the teaching and assessment methods adopted in schools.
 - ii. Capitalize upon the interests and motivations of learners from where they themselves currently stand, encouraging independent study skills and initiative on the part of the learner, and choosing teaching and assessment methods that suit the particular needs of the individual.
8.
 - i. Use performance criteria to help ensure that the learner explicitly masters particular areas of knowledge and skills.
9.
 - i. Adopt a holistic rather than a segmental approach to the setting up of teaching and learning situations.
 - ii. Adopt methods of assessment that encourage a holistic approach to the curriculum.
10.
 - i. School Curriculum should reflect the fact that we live in an era of rapid, often very dislocating, social change.
 - ii. Provide the learners with the knowledge and skills required to enable them to effectively adapt to such change.

- iii. Teach learners how to manage, as well as cope with, change.

Accordingly, diverse nature of learners and learning; diverse needs, interests and problems of learners and society, particular needs and interests of disadvantaged groups; learner – centred learning, teaching and assessment, development of independent study skills, initiative, divergent thinking, and skills to adapt to, manage and cope with change are some of the key areas to be emphasized in a curriculum. Practically any national curriculum of today will find these areas accommodated.

4.2.3 National Goals and Basic competencies of Sri Lanka's Education System

The National Education Commission, Sri Lanka (2003) has identified the following set of goals to be achieved through education within the conceptual framework of sustainable human development. The National Education Commission sees the realization of these as its vision for the education system.

4.2.3.1 National Goals

- (i) National building and the establishment of a Sri Lankan identity through the promotion of national cohesion, national integrity, national unity, harmony, and peace, and recognizing cultural diversity in Sri Lanka's plural society within a concept of respect for human dignity.
- (ii) Recognizing and conserving the best elements of the nation's heritage while responding to the challenges of a changing world.
- (iii) Creating and supporting an environment imbued with the norms of social justice and a democratic way of life that promotes respect for human rights, awareness of duties and obligations, and a deep and abiding concern for one another.
- (iv) Promoting the mental and physical well-being of individuals and a sustainable life style based on respect for human values.
- (v) Developing creativity, initiative, critical thinking, responsibility, accountability and other positive elements of a well-integrated and balanced personality.
- (vi) Human resource development by educating for productive work that enhances the quality of life of the individual and the nation and contributes to the economic development of Sri Lanka.
- (vii) Preparing individuals to adapt to and manage change, and to develop capacity to cope with complex and unforeseen situations in a rapidly changing world.

- (viii) Fostering attitudes and skills that will contribute to securing an honourable place in the international community, based on justice, equality and mutual respect.

4.2.3.2. Basic Competencies

The following Basic Competencies developed through education will contribute to achieving the above National Goals.

(i) Competencies in Communication

- Literacy: Listen attentively, speak clearly, read for meaning, write accurately and lucidly and communicate ideas effectively.
- Numeracy: Use numbers for things, space and time, count, calculate and measure systematically.
- Graphics: Make sense of line and form, express and record details, instructions and ideas with line form and colour.
- IT proficiency: Computeracy and the use of information and communication technologies (ICT) in learning, in the work environment and in personal life.

(ii) Competencies relating to Personality Development

- Generic skills such as creativity, divergent thinking, initiative, decision making, problem solving, critical and analytical thinking, team work, inter-personal relations, discovering and exploring;
- Values such as integrity, tolerance and respect for human dignity;
- Emotional intelligence.

(iii) Competencies relating to the Environment

- Social Environment : Awareness of the national heritage sensitivity and skills linked to being members of a plural society, concern for distributive justice, social relationships, personal conduct, general and legal conventions, rights, responsibilities, duties and obligations.
- Biological Environment : Awareness, sensitivity and skills linked to the living world, people and the ecosystem, the trees, forests,

seas, water, air and life – plant, animal and human life.

Physical Environment : Awareness, sensitivity and skills linked to space, energy, fuels, matter, materials and their links with human living, food, clothing, shelter, health, comfort, respiration, sleep, relaxation, rest wastes and excretion.

Included here are skills in using tools and technologies for learning, working and living.

(iv) Competencies relating to Preparation for the World of Work

Employment related skills to maximise their potential and to enhance their capacity to contribute to economic development; to discover their vocational interests and aptitudes; to choose a job that suits their abilities, and to engage in a rewarding and sustainable livelihood.

(v) Competencies relating to Religion and Ethics

Assimilating and internalizing values, so that individuals may function in a manner consistent with the ethical, moral and religious modes of conduct in everyday living, selecting that which is most appropriate.

(vi) Competencies in Play and the use of Leisure

Pleasure, joy, emotions and such human experiences as expressed through aesthetics, literature, play, sports and athletics, leisure pursuits and other creative modes of living.

(vii) Competencies relating to ‘learning to learn’

Empowering individuals to learn independently and to be sensitive and successful in responding to and managing change through a transformation process, in a rapidly changing, complex and interdependent world.

4.3 Data Collection and Data Analysis

We are now aware that the learners, society, and knowledge are the three major sources of data for deriving objectives and developing curriculum. Information about the learner, society, and knowledge is like a three-cornered stool supporting curriculum planning. The curriculum planning loses its balance if one of these legs is too long or too short. In the light of the Setting for Learning and the trends in curriculum development we discussed earlier we can now identify the essential data that needs to be collected and analysed in developing a curriculum.

4.3.1 Data about Learners

Due to the continuing changes in knowledge and technology individuals of all ages will need to turn to education in order to cope with changes in themselves and in growth. Therefore knowledge about the learner of today and in the future is essential for curriculum planning. Lifelong learning would become a reality only if education is made available to every age group. Therefore the curriculum planners need specific information regarding groups of learners. Some of the data that will be needed are listed below:

- School Census data by traits.
- Student data records and individual school records.
- National and Provincial / District / Zonal records on vital statistics.
- General characteristics of learners (these need to be checked against the population to be served by a particular curriculum).
- Information about the level of development of the learners, their needs and interests.
- Information about developmental tasks which arise from physical maturity (learning to walk), cultural pressure of society (learning to talk), and personal values and aspirations of the individual (choosing and preparing for a vocation).
- Data on learning difficulties pertaining to a particular level, subject matter or achieving a particular objective.
- Data on concepts learners have about a particular item.
- Data on the level of reading learners can handle and the reading experiences learners have.
- Information about the social setting of the classroom, and the conditions under which learning occurs (interpersonal relations).

- Information on the backgrounds of knowledge, skills, and dispositions learners have already developed.

4.3.2 Data about Society

Society has certain expectations of its members. Civil Society or the State expects its citizens to learn certain basic human functions and tasks that will make them contributing and productive adult members. These include: socio-cultural, economic, political, and vocational-technological tasks.

Contemporary life in society is becoming more and more complex. The school needs to be attuned to contemporary developments in society in order to be able to gear its efforts to the critical aspects of living in contemporary society. Therefore following sensitive areas need to be studied and reflected in the curricula:

- Demographic trends;
- Changes in family and community living;
- Scientific and technological change.

Information about the knowledge, skills, and dispositions required for effective participation in society, and those opportunities the society offers for the employment of individual talents will be very important in the light of these trends and changes.

Individual learners learn by observing people in their social context. The social context includes school, peer groups, and community groups (such as religious organizations and youth groups). Peer groups become more influential when children and youth have fewer meaningful experiences with adults. Next to parents peer groups exert most influence for most children. The peer group contributes to school attributes, achievement, and self-concept in childhood and to social development in adolescence.

Familiarity with family and home conditions of learners and awareness of socio-economic status and composition of the family, occupations, and educational level of parents, cultural and intellectual climate, community activities, and emotional climate help to strengthen ties between home and school through the medium of the curriculum.

Awareness of the changing nature of communities and the new definitions of communities arising from new patterns of social interaction will be useful for curriculum development. With a knowledge of the educational programmes conducted by various organizations (governmental and non-governmental), and the types of programmes viewed by learners it will be possible to recognize the total educational experiences of learners in planning their curriculum.

Data regarding the nature and character of career opportunities, potentialities for particular types of occupations, and interests and needs of students in this regard will be very useful in curriculum planning. There is also a need to attend to the fundamental values held within the total society, and to values and mores within local community. Curriculum planner will need to decide how national and local values should affect the curriculum.

Curriculum Developers need to consider both the real and ideal order of society. While being subjected to the limitations imposed by actual social forces operating at present, the curriculum developer is obligated to find ways and means of carving out a better life and good society in the future. Following additional factors also need to be taken into account in this regard:

- Natural and human resources;
- Population changes and movements;
- Migration patterns;
- Mechanization;
- Urbanization;
- Globalization;
- Industrialization;
- Human rights;
- Constitutional guarantees;
- Production and consumption;
- Consumerism;
- Interdependence;
- National cohesion;
- Inter group-conflicts;
- Impact of Information and Communication Technology (ICT).

4.3.3 Data about knowledge

New developments in knowledge require new approaches to curriculum planning and teaching. We are aware that current knowledge is tentative and needs modification. In relation to curriculum, knowledge is defined as the content that students have connected to their previous experiences (Henson, 2001). The relationship between information, content, and knowledge is shown in Figure 3.

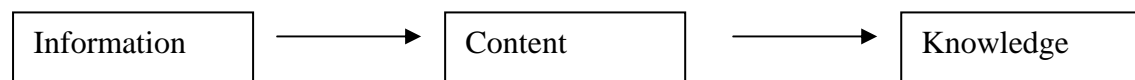


Figure 3. The relationship between information, content and knowledge.

The differences between these three terms appear to be slight. However, their effects on learners make the differences between memorizing and understanding. We are now aware that curriculum planning require a knowledge base and a depth of understanding. Skills of the future will be based on an increasing amount of constantly evolving knowledge and know-how adapted to a knowledge-driven civilization.

Curriculum planning that enables learners to see the forest, and not just the trees, is based on some map of knowledge (Saylor et al., 1981). Scholarly disciplines defined as organized fields of inquiry developed by specialists can be used to map knowledge.

P. H. Phenix (1964) has developed an alternative map of knowledge by categorizing disciplines into six “realms of meaning”, namely, Symbols (ordinary language, mathematics, nondiscursive symbolic forms); Empirics (physical science, biology, psychology, social science), Esthetics (music, the visual arts, the arts of movement, literature); Synnoetics (personal knowledge); Ethics (moral knowledge); and Synoptics (history, religion, philosophy). Descriptions of these realms of meaning provide a useful guide to curriculum planners.

Bloom’s taxonomy is a map of the cognitive field widely used by curriculum developers. Benjamin Bloom’s (1965) Taxonomy of Educational Objectives categorizes cognitive learning into six major divisions namely, (1).knowledge, (2).comprehension (3).application, (4).analysis, (5).synthesis, and (6).evaluation. Each upper division subsumes the previous lower ones. This Taxonomy enabled teachers to build learning

experiences on increasingly higher levels of thought processes. With the advances in technology students needed to be stimulated to think through processes and to establish relationships themselves, not just to remember facts but to use these to solve problems.

Curriculum developers need to be aware of the nature of the subject matter and types of learning which arise from the study of subject matter. Data coming from the sciences and humanities which form the core of the school subjects is all the more important.

Research studies provide one source of professional knowledge for curriculum developers. Accounts of good practice, visits to other educational centers, and consultations with educational experts help gain knowledge. Other sources of knowledge are the behavioural sciences such as psychology, sociology, anthropology and political science.

However, it has to be recognized that the knowledge as represented by school subjects is neither unitary nor unproblematic. We know that school subjects bear little resemblance to the parent disciplines. Even parent disciplines have undergone profound changes and new hybrid disciplines like Bio-informatics have emerged. The biological Sciences have been utterly transformed. In the Social Sciences, especially history there is contestation. Each advance in a particular field has the potential for creating another branch.

A major problem that has persisted through the years and that has accelerated in recent years is the amount of information from which curriculum developers must choose. The “knowledge explosion” highlights the lack of a rational system for selecting content and activities (Henson, 2001).

Alvin Toffler (1970) asserts that knowledge taught should be related to the future: ‘Nothing should be included in the required curriculum unless it can be strongly justified in terms of the future. If this means scrapping a substantial part of the formal curriculum, so be it.’

4.4 Needs Survey, Instruments, and Assessment/Diagnosis of Needs

4.4.1 Significance of Needs in Curriculum Development

Several curriculum writers have referred to needs as a basis for curriculum planning, and needs assessment as a preliminary step in curriculum development. Diagnosis of needs is the initial phase of Hilda Taba's Curriculum Model. She emphasized the need for teachers to diagnose the level of thinking of learners before embarking upon any curriculum activity. The second component of P. F. Oliva's extended curriculum model is concerned with specification of particular needs of particular learners, particular community and subject.

In our discussion on the trends in curriculum development the importance of meeting the needs of the whole individual and that of accommodating the needs of both the individual and society as a whole was highlighted. Learners are different in the ways they learn, and in their abilities, interests, and tastes. When curriculum planning is representative of the aims of education for one group of learners, there is a danger that the needs of others will go unmet. Designing curricula to meet the needs of learners is an ongoing challenge that education must meet. Recent research in psychology, sociology, and social anthropology has enhanced our understanding of the meaning and the function of needs in educational programmes.

Purely educational definition of the term 'need' describes a need as 'the gap between the present state of an individual and the desirable objectives, such as a need for sensitive awareness of other people and their values, for critical thinking, for competence in social skills, for adequate achievement in arithmetic, for democratic social attitudes, and for skills in group life (Taba, 1962).

Learner needs have been roughly classified into the following three categories:

1. Psychological Needs : Requirements of the biological nature of human beings, such as the need for food and for activity and rest, that is, physical health.
2. Social Needs: Relationships which individuals must establish with other human beings, institutions, and organizations; these involve the need for belonging, security, and status.

3. Ego and Integrative Needs: Qualities and conditions of life experience which facilitate the growth of the individual and the finding of the self, such as contact with reality, self-direction, balance between success and failure, self-esteem, self actualization, and overall personality integration.

Robert J. Havighurst (1972) has attempted to arrange needs into bio-socio-psychological tasks that he refers to as the developmental tasks of life. A developmental task is defined as:

‘a task which aims at or about a certain period in the life of the individual, successful achievement of which leads to the individual’s happiness or and to success with later tasks, while failure leads to unhappiness to the individual, disapproval by society, and difficulty with later tasks’.

Some examples of the developmental tasks of middle childhood are: (i) developing concepts necessary for everyday living; (ii) developing conscience, morality, and a scale of values; (iii) achieving personal independence. Three examples of developmental tasks of adolescence are: (i) preparing for an economic career; (ii) achieving a masculine or feminine social role; and (iii) acquiring a set of values and an ethical system as a guide to behavior

4.4.2 Instruments

Some useful techniques and related instruments for collecting data and identifying needs can be listed as follows:

Surveys

- Questionnaires
- Interviews
- Checklists
- Inventory of skills
- Written submissions
- Subjective judgments
- Literature

- Learning theories
- Research studies
- Project Reports

Observation

Meetings

- Brainstorming
- Discussions (for example, on good practices and success stories)
- Nominal group techniques

Tests

- Norm–referenced
- Criterion - referenced
- Diagnostic

4.4.3 Needs Assessment and Diagnosis

Various needs assessment procedures are available in literature. F. W. English and R. A. Kaufman (1975) define needs assessment as:

‘a tool which formally harvests the gaps between **current** results (or outcomes, products) and **required** or desired results, places these gaps in priority order, and selects those gaps (needs) of the highest priority for action, usually through the implementation of a new or existing curriculum or management process.’

Needs assessment and data analysis activities can occur within local education authority, education zone, or a single school community. The scale of the activity will depend upon the magnitude of the task or change being considered. Needs assessment enables educational needs to be defined and priorities set. It also serves as a medium for bringing together parents, students, teachers and citizens to discuss alternative educational goals. Analysis of essential data and assessment of needs forms a fair and objective method of deciding upon priorities for curriculum development. It can lead to innovative and creative priorities and solutions. However, it becomes often difficult to pinpoint actual needs, and inexpensive, informal methods may be found more useful in some instances.

Data for the analysis of needs may come from different sources, through different techniques. These data may be of different degrees of accuracy and dependability. The major task of the curriculum developer will be to translate the available data into sufficiently concrete and succinct needs in order to develop a rational basis for making preliminary decisions about content, emphasis, and objectives for learning experiences.

Diagnosis should be a continuous part of ongoing curriculum and teaching to keep curriculum in tune with the needs of the times and students, and to help determine which objectives to stress. There will be a continuous need to accommodate different types of learners, to introduce new materials or a new emphasis. Analysis of diagnostic data helps to bridge the gaps between knowledge of the general needs of learners and of particular needs of a given group. It also helps to locate the particular points which need attention in order to make curriculum and teaching more effective.

4.5 Formulation of Aims and Objectives

Formulation of aims and objectives provides the necessary platform for the curriculum. Selecting educational objectives for the curriculum (that is, identifying what learners should be helped to learn) needs thoughtful judgment informed by information or data of the kind discussed earlier in this Reading. Defining and formulating aims and objectives is an important creative task. This requires careful exercise of value judgments. Assistance from various individuals and groups will be needed to clarify the philosophical priorities and values that will guide education.

At the outset it is important to distinguish between the terms Goals, Aims and Objectives for the purposes of this course.

4.5.1 Goals

Goals are an ideal; an inspiration in which to go. They are visionary in character. Goals are broadly phrased general statements which apply to systems. **Examples:** (i) Inculcation of a deep feeling of patriotism and commitment to the service of the nation and its upliftment; (ii) Awareness of and sensitivity to the assimilation of wholesome values in

life and work. We have already discussed the National Goals of the Sri Lankan Education System in section 4.2.3.

Goals are given specific emphasis by aims and aims are actualized by objectives. Objectives are implemented in instructional events and learning outcomes.

4.5.2 Aims

Aims are more precise statements which give details of curriculum intent. Aims are medium to long term and are directed to student achievement. Aims represent the purposes of a particular course or unit of instruction. These aims, in turn, justify particular learning objectives. **Examples:** (i) Acquire oral and writing skills through pleasurable activities using language as the medium; (ii) Develop ability to interact with natural and built environments efficiently, effectively, confidently and with responsibility.

Many curriculum authors agree on several types of curriculum aims for schooling, for example, Academic, Vocational, Social, and Personal aims. However, their opinions differ on the emphasis to be given to each type in a school curriculum.

Academic aims include a mastery of basic skills and fundamental processes, and intellectual development. When learners do not become proficient in basic skills, there will be restrictions to function in society. Intellectual development includes: (i) ability to use and evaluate knowledge; (ii) problem-solving skills; (iii) an adequate amount of knowledge acquired from major disciplines, and (iv) a favourable attitude towards intellectual activities.

Vocational aims provide decision-making skills about career opportunities, and development of habits and attitudes for productive participation in economic life.

Social and cultural aims include interpersonal understanding, enculturation, development of moral and ethical character and citizenship participation.

Personal aims include all aspects necessary to be a human being, for example, creativity and aesthetic expression, self realization, and emotional and physical well-being.

Dewey contended in as far back as 1916 that educational aims in a democracy must be governed and devised through learning activities that enable the learner to have foresight of results, rather than having such aims dictated by the teacher and met through a serial aggregate of imposed tasks.

4.5.3 Objectives

Objectives are more specific statements of intent about anticipated changes in learners, about what learners are to be able to do after having experienced an instructional unit or a portion of a unit. Objectives are short-term and should enable the teacher to identify how learners change their behaviour through certain learning experiences. The conditions under which these changes occur are also very often given in the objectives statement. Objectives have to be carefully formulated as planned specifications for a unit or topic.

Instructional or behavioural objectives describe desired learning outcomes in terms of learner activities or behaviours and are relatively specific. They are also called **performance objectives** since each objective refers to the ability of learners to perform selected tasks in one or more specific ways. Objectives provide clear directions to teachers on what is to be taught and assist them in selecting relevant content, methods, assessment and resources. Objectives also enable teachers to judge the quality of their own teaching. However, it is clear that all the outcomes of a particular lesson cannot be specified in a limited number of instructional objectives. As objectives are specified in advance it is also not possible to accommodate unintended outcomes. On the other hand, specifying only some objectives can lead to the exclusion of other equally important areas of teaching.

According to Marsh (1992), for instructional objectives to be effective they:

- need to be sufficiently broad to include as many learning outcomes as possible (comprehensiveness);
- must be relevant to learners in particular grades or class levels (suitability)
- must reflect the reality they claim to reflect (validity);
- should be attainable by learners according to their levels of competency and availability of resources (feasibility);

- must be phrased clearly and precisely in order to avoid misunderstanding by teachers or by learners (specificity);
- should be consistent with other stated objective (compatibility).

Henson (2001) observes that most authorities appear to agree that all statements of performance objectives must meet at least three criteria, as follows:

1. Objectives must be stated in terms of expected learner behaviour (not teacher behaviour).
2. Objectives must specify the conditions under which the students are expected to perform.
3. Objectives must specify the minimum acceptable level of performance.

Considerable effort has been made to study the **cognitive** processes for assessing learning outcomes. One of the most systematic approaches to assist writing objectives at specified levels was developed in 1956 by Bloom and his associates (Bloom et al., 1971). The difficult task of identifying and classifying **affective** processes for the purpose of assessing learning outcomes has been undertaken by Krathwohl, Bloom and Masia (1964). In the 1970s increasing attention has been given to **psychomotor** processes that require coordination of mind and body. The psychomotor domain has been especially relevant to courses such as physical education, art, drama, music, and vocational courses in connection with the learning of techniques involving complex manipulative skills. A. J. Harrow (1972) and E. J. Simpson (1972) have developed taxonomies for psychomotor tasks.

4.6 Organization of Content and Learning Experiences

4.6.1 Selection of Content

Analysis of needs and statement of objectives provide a basis for selecting the content. A curriculum unit is usually developed within a general framework formulated by some authority (national, local, or school) which determines the general areas of content to be considered at any grade level. Organizational principles associated with content, learning experiences and other elements associated with the curriculum have already been discussed in Reading three.

Selecting the content, with accompanying learning experiences, is one of the central decisions in curriculum making. Deciding on a rational basis for selecting curriculum content has become a crucial problem due to following reasons:

1. Variety of sources available to be considered in deciding what to include and what not to include.
2. Explosion of knowledge has made classical simplicity of school subjects impossible.
3. New requirements of literacy.
4. New areas of learning due to extension of educational objectives.

As discussed early in this lesson a search for the best content should include at least a consideration of

- i. known information, that is, the body of knowledge available with the curriculum developer;
- ii. society's needs (including current trends and perceived future needs);
- iii. the needs and interests of learners;
- iv. the state of human development (what has social worth).

Curriculum content should be valid and significant to the extent that it reflects the contemporary scientific knowledge. One consequence of rapidly changing knowledge is the equally rapid obsolescence of subject matter used in school curricula. This obsolescence can be in respect of facts, underlying concepts, theories, approach, or mode of thought used. Concerning the validity of content the important question is how fundamental the knowledge is. Criterion of validity and significance is especially relevant to the selection of the basic concepts and ideas. Knowledge becomes significant

also to the extent that its pursuit conveys the spirit and the method of inquiry. Particulars of the content must also represent the structure of the subject matter.

If the curriculum is to be a useful prescription for learning, its content and learning experiences need to be in tune with social and cultural realities of the times. Content and learning experiences, in addition to being valid and fundamental in a scientific sense, should also be significant in a social sense.

4.6.2 Organization of Content

A number of approaches have been advocated for organizing content. These include organizing content

- by separate subjects,
 - by activity with learners' experiences as the starting point for planning;
 - by core on the basis of social problems;
 - by correlation of elements from various separate subjects;
 - by correlating and fusing subject areas into broad fields of study; and
- into major societal problems or life situations.

4.6.3 Selection and Organization of Learning Experiences

Content and learning experiences are inseparable. The process of selection of content should include the selection of experiences or activities through which that content can become meaningful. Some educational objectives are served by the content; others are best implemented by certain learning experiences. The objectives described as acquisition of knowledge – the concepts, ideas, and facts to be learned – can be implemented by the selection of content. The attainment of objectives such as thinking skills, and attitudes cannot be implemented by selection and organization of content alone. To attain these, the learners need to undergo certain experiences which give them the opportunity to practice the desired behaviour.

If curriculum is a plan for learning and if objectives determine what learning is important, and then it follows that adequate curriculum planning involves selecting and organizing both the content and learning experiences. Essentially the problem of curriculum building is to include sufficient materials and experiences to develop the conceptual understanding of the phenomenon of change and the resulting problems and to develop minds that can cope with change and reasonable coping techniques. In order to serve an

unpredictable future, it is especially important to cultivate the type of mental processes which strengthen the capacity to transfer knowledge to new situations, the creative approaches to problem solving, and the methods of discovery and inventiveness.

Learning experiences and not the content as such, are the means for achieving all objectives except those of knowledge and understanding. Different behaviours involved in different areas of objectives require different types of learning experiences to attain them.

Group work and problem solving activities are effective techniques in helping learners to understand the content they are studying. Since many problem solving situations are open-ended, learners involved in such situations in a cooperative manner come to learn that knowledge seeking does not stop with a single answer. Problem solving strategy offers tomorrow's citizens' opportunities to prepare for the type of lifestyle that will require critical thinking and problem solving abilities.

Costa and Liebmann (1997) making a case for a process-based curriculum emphasize that teaching of process will portray learning as a perpetual endeavour and not something which terminates with the end of the school. As the industrial model of society is now shifting to a learning model of society, they say the focus of education must also shift from a content-driven curriculum towards a process-based curriculum that will provide individuals with skills necessary to engage in lifelong learning. This shift will make content the mechanism for teaching process. Processes can be thought of at three levels: skills, operations, and dispositions. Skills include mental functions such as comparing and classifying as well as behaviours such as listening and asking questions. Operations require and include clusters of numerous skills. Communicating can be considered as an operation composed of verbal and non-verbal skills such as attending, paraphrasing, clarifying, questioning, monitoring body language, and making eye contact. Dispositions are habits of mind, inclinations, and characterizations such as having a questioning attitude, persevering when an answer is not immediately known, and being willing to change one's mind in light of new information.

Future workplace will need characteristics such as work teams of multiskilled workers, employees with broader skills as opposed to specialists, recognition that everyone requires continuing training, advancement by certified skills rather than by seniority,

decentralized control, flexible automation, on-line quality control, and labor–management cooperation. Therefore, future curricula need to focus on (i) skills that are learned in the context of real problems, (ii) learning experiences that develop cooperative problem solving, (iii) the development of thinking skills, (iv) outcomes that ensure all learners have learned to think, and (v) self-assessment integral to learning.

Recent curriculum authors (King, 1991) have emphasized the need for infusing international knowledge, skills and attitudes at all levels and within all courses in the curriculum and the need for integrating international concepts directly into subject matter.

Summary

The Setting for Learning illustrated in Figures 1 and 2 at the beginning of this lesson serves to identify the sources of data necessary for developing a curriculum. The discussion on the ten Mega-Trends in Curriculum Development gives an idea of the key areas that need to be kept in mind in collecting data and identifying needs for the curriculum development task. The discussion on National Goals of the Sri Lankan Education System and the Basic competencies to be developed through education in order to achieve the National goals will further facilitate this task. We also discussed about different types of data available for collection with regard to learners, society and knowledge. What to choose and collect out of the vast amount of data using various techniques and related instruments listed is a crucial decision the curriculum developer has to make. The importance of assessing and diagnosing the needs of learners was also highlighted. The description on different types of aims agreed upon by curriculum writers, and of the characteristics, qualities and criteria necessary for effective objective statements will be a useful guide in the formulation of aims and objectives. The significance of different types of learning experiences in achieving many curriculum objectives and the effectiveness of techniques such as group work and problem solving in assisting learners to understand content were highlighted in the last section on content and learning experiences. The skills, operations and dispositions that need to be developed and strengthened through future curricula were also discussed in detail.

Objectives

You are now able to

- i. Describe the key bases and current trends in curriculum development;
- ii. Collect and analyse essential data for developing a curriculum;
- iii. Survey, identify, and assess the needs of the target group of learners for whom the curriculum is to be developed;
- iv. Formulate the aims and objectives of the curriculum on the basis of the needs identified and diagnosed; and
- v. Select and organize the content and learning experiences for effectively achieving the aims and objectives formulated.

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