

Overview of Curriculum Development Stages

Kofi Nkonkonya Mpuangan* and Soubhagya Padhan

Department of Education, M.S. University of Baroda, Vadodara, India

*Corresponding author: nkonkonya@gmail.com

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ABSTRACT

Curriculum development is a need in all educational institutions. At all level some common stages were adopted by many curriculum developers to develop curricula. Here in this paper an attempt has been made to overview some of the stages and provide innovative suggestions which could be useful for developing curricula. In all the stages, adequate steps were provided to enable the curriculum developers to strategize learning experiences in order to achieve the needs of the learner. It is possible for the curriculum developers to make the education system work through given curriculum. Since it is a systematic process, the developers ought to involve some key stakeholders from the grassroots. Involving teachers, parents and learners in the process may be useful to give adequate inputs to develop effective programme.

Keywords: stages, curriculum, and development, Education

The role of curriculum has a long history dating back in the ancient times. Knowledge and skills for survival were taught to young ones through saber-tooth curriculum (Alviora, 2014 & Peddiwell, 1939). It was mainly developed to fit the survival needs of the ancient man. The survival requirements included skills such as farming, hunting, fishing, pottery making, weaving, music and dance which were passed on to the young generation. The subsequent exposure of man to civilization was the beginning of formal education. This form of education requires that the process of curriculum development has to be systematic, planned, purposeful and progressive entity thereby making teaching and learning meaningful in the present generation (Alviora, 2014).

The ancient and modern curricular have a common link. The link is that both focuses on preparing the learner with adequate knowledge and skills for fit well in the society. In this context, the following questions arise; do the curricula of all the levels of education prepare students as per the needs of the society? If the required students

are not being produced, what could be wrong with the curriculum development stages? In that consideration, this paper seeks to overview the functional stages of curriculum development and provides innovative suggestions which could be considered by curriculum developers and agencies for prescribing and testing the effectiveness of programmes for national development.

Curriculum

Curriculum could be traced to a Latin word 'currere' which means a race or running a course. Traditionally, many scholars defined curriculum as a course of study prepared by the teacher for the learner (Bilbao *et al.* 2008; Bestor 1958; Hutchins 1936). In the context of the traditional definition, curriculum only involves subjects such as the Languages, mathematics, humanities and social science. Noting the experiences of the learner, both the academic and non-academic aspect of the curriculum should be a matter of concern for the curriculum developers. As the learner is exposed to academic and other related activities in school, the

definition of the curriculum should rightly cover other aspects of life than the mere formal course of study.

In view of the foregoing discussion, Bishop (1985) defines curriculum as learning experiences organized by teachers within and outside the school, to enable pupils to adopt positive attitudes to learning; to apply knowledge and skills and to develop their tastes and a balanced sense of value. By this definition, Bishop reminds the curriculum developers to consider other aspects of life and incorporate in curricula which can be useful for facilitating teaching and learning. The component of the curricula which can be properly emphasized in this context include; the objectives of teaching and learning, the content of the subject matter, methods of instruction, specific time frame and methods of evaluation.

Curriculum development

Curriculum development is an essential process in learning establishment. It helps to align the needs of the society in the facet of social dynamism. It also has the tendency of modifying given curriculum. It modifies the content of the syllabus to suit the needs of the society, revises teachings methods as per the learning needs of the learners and capable of testing the effectiveness of a programme (Taylor & Richard, 1985).

Curriculum development is certainly not to be done single handedly. It involves several experts. The experts are involved to give inputs in their respective areas of specialization. In educational setting, the services of curriculum specialist, educational psychologist, educational technologist, teachers, subject experts, and evaluators have to be employed in the process of curriculum development (Srivastava, 2010).

Stages of curriculum development

The aims of education are derived from the culture and aspiration of the people of a society. Since the society is made up of complex culture, it is believed that there are diversity of beliefs and values. The curriculum developers must be meticulous in development stages. While developing the curriculum, the core values of the society must be considered. It may be thought that curriculum developers such as Tyler (1950) and Taba (1962)

followed certain curriculum development stages in order to develop successful curricula for many education establishments. In this study, the stages have been over-viewed. Though the study might not follow the exact order of any of the curriculum developers, it has considered some vital points of the previous developers. It also ascertained the present concerns and built upon relevant knowledge and interest of the society. The details of the curriculum development stages is presented below.

Identification of needs

Identification of needs is first stage of curriculum development. It helps to determine the appropriate objectives which can serve as a focal point of the course. It also reflects the needs of a given time and that of the learner. This stage of curriculum development is useful to establish plans and expectations for improvement of a course. There have been varieties of needs which the curriculum developers have to diagnose. Each of them as follow reflects certain objectives and perspectives regarding teaching and learning situations.

Social needs: the curriculum has to reflect the needs and aspiration of the society. As the aims of education are derived from the culture of the people, there will certainly be involvement of some amount of social antecedents. On the whole, the society is often exposed to changes via culture and technology which the curriculum is expected to prepare the people to align the situation. In such circumstances, the selection of the objectives, subject matter and learning materials must be as valuable as per the needs of the learner.

Diagnosis of school facilities and resources of the country: availability of effective school facility is responsive to the educational delivery. They provide a physical environment that is comfortable and accessible for teaching and learning. The facility diagnosing process involves an assessment of functional needs in the perspective of educational program. The diagnosing includes; feasibility studies, district master planning, site selection, needs assessment, and project cost analysis (Castaldi, 1994). The outcome of this diagnosis is determined by special design criteria which the programme facilities must meet. It is recognized that school facility has to be cost effective, learner-centered, appropriate for the learner's development, safe,

and equitable (Zureich, 1999). The availability of resources in a community must be useful and cost effective to a new programme. For instance, schools can share facilities such as the museums, ICT centers, zoos, libraries, and other public institutions and local businesses.

The needs of the learner: The physical, social, intellectual, and emotional developments of the learner are critical aspects of curriculum development. Every stage of the learner's development demands constant effort of a programme to stimulate and direct the continual growth and development. The belief prevails that a programme should acquaint the teacher with the needs of the learner to be able to guide and determine suitable learning environment for the learner. It is envisaged that the learning needs can be diagnosed in consultation with the learner, school staff members, parents, and professionals in education (Health & PE in the NZC, 1999).

Formulation of objectives

Formulation of objectives is another important stage of curriculum development. It helps the curriculum developers and teachers to be cleared about what they want the learner to acquire thereby making teaching and learning effective. What to teach to the learner and the expected learning outcomes are explicitly specified in the instructional objectives. In fact, the learning outcomes of the learner are embedded in behaviorist objectives as specifying what the learner can do after learning has taken place. The success of teaching and learning can be determined by testing of the learning outcomes.

Characteristics of objectives

The real initiatives of curriculum development lie with the objectives. The statements of the objectives are therefore guided by conditions which are presented as follow:

1. The objectives should be stated in clear terms to avoid ambiguity
2. The objectives have to be sequence in the line of learning process.
3. The objectives should cater for the stages of development and corresponding learning abilities of the learner.
4. The objectives should focus on the learner while the teacher acts as a guide.

5. The objectives should be achievable within reasonable time frame
6. The objectives should be evaluation friendly.

Classification of objectives

The objectives are often classified according to the level of expected learning experiences. They can be classified under Benjamin Bloom taxonomies via cognitive, affective and psychomotor (Anderson, Lorin Krathwohl, David, & Bloom, 2001). Such classifications determine the actual framework of curricula for various course areas.

The cognitive aspect of the objectives focuses on the learner's mind. It involves the cognitive feedbacks including recall of facts and concepts, reading abilities, problem solving skills, ability to analyze ideas, synthesize facts and concepts, and to draw conclusions. According to Bloom, the mental activities could further be categorized under simple and complex cognitive tasks. These categories help to determine the learning outcomes of this domain. In that consideration, the objectives have to be placed in order and sequence. Also, the affective aspect of the objectives emphasizes on the learner's emotions, feelings and level of reception or rejection. It also prepares and shapes his actions, attitudes and values. The psychomotor aspect of the objective emphasizes on the development of body and mental coordination of the learner. It mainly centers round the development of gross and fine motor skills. For instance, the learner's ability to manipulate and coordinate the muscular-skeletal system in the context of writing, drawing, running, singing and dancing are the ultimate goal of this classification.

Selection of content

With a view to bringing about lasting improvement of a society particularly in this era of knowledge outburst, the content of a curriculum needs to be well fortified. In curriculum development, the needs of the society have to be accorded the top most priority. Needs such as social, economic, culture and political can be considered in the content. In this consideration, the content areas that are relevant to such needs should be adopted.

Attempts have been made by theoretical and empirical studies to determine the selection of

appropriate content for curriculum development. Balsara (1999) found that theories apply two criteria for content selection which include (1) criterion of survival and (2) significance to organize field of knowledge.

The criterion of survival refers to the ability of the subject matter to stand the test of time. The cultivation and preservation of worthwhile knowledge from generation to generation is significant in human endeavor. In selecting the subject matter, its suitability for culture accumulation and transmission may be considered. This can subsequently be tested as time passes by to ascertain the effectiveness of the programme.

The significance of the content to organize field of knowledge is also important for culture accumulation and transmission. The subject matter which is appropriate for producing research scholars and specialist is essential in this context. It is in the view that the learners with research and specialized knowledge are instrumental for culture preservation. This is often applied in higher education curricula where learners largely acquire specialized training and research skills.

Factors to consider for content selection

Apart from the two criteria as discussed above, there are other factors to be considered for content selection. Some of the factors are presented as follows:

Time: duration of a programme determines the amount of time to be allotted to teaching and learning of the content. Teaching and learning can be affected by a given amount of time. If sufficient time is given, more activities can be planned, executed and evaluated appropriately. In some of the cases, lesson planning and delivery is done in a shoddy manner to fulfill a limited time frame. This factor may pose a serious threat to achieving the objectives if not properly managed.

Instructional material: understanding the content of a curriculum requires extensive and frequent use of instructional material in teaching and learning process. It can be human and non-human material that can facilitate understanding. In the instructional process, interacting the available instructional material is crucial for developing the learners' interest and encourages participation.

Maybe, the fate of understanding a content of a given curriculum lies in the availability of teachers, textbooks, laboratory, library and other relevant learning aids which can be used by the teacher to achieve lesson objectives.

Learning environment: learning takes place in different ways and contexts. To place the learner at the center of learning, purposive environment is required to facilitate learning. Developing a conducive learning environment for the learner maybe a challenging task for curriculum developers. In some learning situations especially among mature learners, it can be created. Sometimes, it can be created by the teacher but it is also important to consider the fact that it seeks to jeopardize the success of the content of the curriculum if not properly taken care of. When that happens, the teacher will not be comfortable to teach while the learner will not be at ease to learn. In that case, the content will be thwarted.

Expected learning outcomes: learners are expected to acquire skills after engaging in learning. The extent to which learners learn at every stage is essential. At different course levels, learning outcomes can be checked to understand learners' progress. Knowing the learning outcomes is useful for determining whether the expectations of content are achieved, and subsequently directs the framework of the content. For instance, if evidences from the needs assessment require graduates who have mastered practical skills, the expectation of course content at that level would definitely involve mastery of such skills. Other related skills which are not expected at that level would be given less treatment in the content.

Organization of content

To achieve the objectives of a curriculum, organization of content is significant (Edith Cowan University, 2001). The content can be organized sequentially to determine learning processes. This process clearly specifies what the learner needs to learn in an orderly manner (Edith Cowan University, 2001 & Print, 1993). The criteria for developing sequence of curriculum content are not far reaching. As pointed out by Bain and Siddique, content sequence has to follow basic principles such as simple to complex, prerequisite learning, whole to part and chronology. These criteria are quite

suitable and glorifying as establishing logical links across learning experiences thereby helping the learner to easily comprehend and retain the content.

Next to the criteria of content sequent is establishing a link between general objectives and subject areas. Norms may be developed to relatively reflect on planning of objectives and content of other courses. In this situation, proper orientation regarding organization of concept, procedure and attitude of the learner may be needed. The curriculum developers ought to recognize the impulses of the cognitive, affective and psychomotor skills of the learner when sorting the content. And this will consolidate holistic development of the learner.

Another criterion worth noting for sequence of content is spiral sequence. This allows the learner to visit and revisit concepts for subsequent development. As believed by Johnston (2012), spiral sequence is related to the works of Bruner which portrays following features:

- (i) The learner visits and revisits a concept, topic or unit, in his entire school life.
- (ii) The learner increases his knowledge in each time he revisits the concept.
- (iii) New learning is on the basis of the relevance previous knowledge.

Integration is also another criterion of content organization. This criterion enables the learner to benefit knowledge, skills, attitudes, and values within and across other subject areas for understanding (Alberta Education, 2007). Content integration can be two types namely; interdisciplinary and multidisciplinary (Drake & Burns, 2004). The interdisciplinary integrates content of many sub disciplines within a discipline to facilitate understanding of the learner while multidisciplinary organizes content from multiple disciplines to aid the understanding of a concept.

Selection of learning experiences

The selection of learning experiences is complex yet another important stage of curriculum development. The learning experiences refer to the interaction and reaction between the learner and the prevailing external conditions in the environment (Tyler, 1949). These experiences can be mentally, physically, or emotionally attributed. It is noted in the traditional school setting, that learning experiences are

primarily limited to mental activities thereby placing emphasis on reading, reciting, and testing which are often academic and abstract (Setidisho & UNECA, 1989).

The role of a teacher in selecting learning experience is enormous. Though the learning experiences maybe different from the content of activities that the teacher engages the learner, the teacher approves and sanctifies the learning experiences for meaningful learning outcomes (Lunenborg, 2011). The teacher also takes decisions about the lesson concerning time allotment, teaching and learning material and assessment. The content of study and the learning experiences are commonly related in that the learner can simultaneously be engaged during learning process (Taba, 1962).

Criteria for selecting learning experiences

The selection of learning experiences is guided by certain criteria. Such criteria set to organize the experiences in a sequential manner for ensuring continuous and accumulative learning (Taba, 1962). The following criteria as adopted by Setidisho & UNECA (1989) can be considered for selecting learning experiences.

Relevant to the learner: the advancement of technology has changed the way of learning. Perhaps the trend of learning is gradually shifting from classroom, pupil-teacher interaction to electronic learning. The learner seeks to manipulate the electronic devices depending on their availability and usability. The experience of the user is significant and largely considered when selecting the devices. Therefore the selection of learning experiences is relevant to the learner in achieving the learning goals.

Balance of learning: acquiring abstract knowledge has become the ultimate goal of learning. It is believed that the talent and skills of the learner is often not a concern on academic race. This is a sense of imbalance in learning process. As opined by Bunning and Shilela (2006), learning has to involve 60% practical and 40% theoretical work. The curriculum developers have to appreciate life beyond academic. Therefore, a multi-task learning is important in this perspective as ensuring holistic learning. It provides opportunity for acquisition of both academic and practical knowledge.

Appropriate to the learner development: Keeping in mind of the stages of maturity and level of understanding of the learner, the curriculum developers have to consider the learning experiences which are appropriate for satisfying varieties of needs. Also, considering the background and development level of the learner, it is obvious that learning experiences differ from learner to learner. What could be effective for one learner may not be effective for other. Generally, the interest, previous experiences and goal of the learner are useful for curriculum developers in this context.

Consideration of social values: Social values form important part of a curriculum. The values ensure social stability and orderliness. Though values may differ in different societies because of culture diversity; many of them fall in similar categories. Such categories of values may include; respect, patriotism, generosity, chastity, hard work, honesty and so forth. The curriculum can inculcating such values in learners in order to influence them to engage feverishly with learning activities which will subsequently lead to social development.

Feasibility of learning experience: For learning experience to be feasible, it should be used to achieve the intended purpose. For this reason, learning experience must be available, usable and retainable of learning resources to achieve learning goals. Learning experiences which are highly demanding, costly, time consuming, practically impossible and may pose risk may be avoided. Modern teaching and learning methods involving child centered approach can be used to create highly morale atmosphere, enthusiasm and sense of belongingness in the learner. These ultimately enhance teaching and learning process and create satisfaction amongst the learners.

Organization of learning experiences

Curriculum developers can organize the learning experiences vertically and horizontally (Tyler, 1989). In a vertical curriculum, learning experience in one lesson prepares the learner for the next lesson. This develops useful skills and knowledge which can further be reinforced across the entire course of study. Vertical curriculum is progressively structured and focuses on establishment of advanced knowledge. In a horizontal curriculum, knowledge is integrated across different disciplines. Learning

experience in a given course of one institution corresponds with the other institution in terms of content and assessment, while assessing the learning outcomes on the basis of standards and grade levels.

Organization of learning experiences in curriculum development follows certain criteria. According to Tyler (1989), continuity, sequence, and integration are major criteria which are required by curriculum developers in this process. The criterion of continuity is a stable and progressive learning experiences of a curriculum. It is useful for helping the learner to connect concepts of previous learning experiences and effectively create cohesion among successive learning experiences. Under the criterion of content sequence, the curriculum developers may be reminded that learning experiences in the next stage of the learner's progresses must be different and advanced than the previous'. For instance, the learning experiences in the class one should be advanced and different from that of the class two and so forth. The integration criterion underlies the fact that organizing learning experiences is useful for achieving learning outcomes in other fields of study. This criterion is common in higher education whereby the learner can connect skills and knowledge across curricula.

To meet the needs of the learner, teaching methods can also be selected carefully in the process of curriculum development. Learners with mixed abilities have to be provided with equal opportunity to learn. It is important that the teaching methods have to be suitable for equipping knowledge which is worthy of practice and ensuring life-long learning. Since institutions are built on the basis of educational philosophy, the selection of teaching methods should be done according to the educational philosophy of the institutions. It is believed that the availability and capacity of resources in institutions can influence the selection of teaching methods. In any case, student centered approach to teaching may be preferable in many learning establishment.

Evaluation procedure

Evaluation procedure stage of curriculum development involves testing the effectiveness of curriculum material to find out the extent to which the objectives can be achieved (Tyler, 1950). The progress of the learner as well as the level

of improvement of the institution is essential in this process. It helps the curriculum developers to identify pertinent problems in a given curriculum of an institution and amend accordingly.

In this stage, the curriculum developers follow many steps to determine the success of the curriculum. One of them is appropriate of the objectives. This is testing to find out whether the set instructional objectives meet the needs and interest of the learner. Also, relevance of the content for achieving objectives can be tested. This is to ascertain whether the adequacy of the subject matter and its hierarchical structure is appropriate for helping the learner to achieve a goal. Another step is finding out the suitability of teaching methods used in a course. In this process, the curriculum developers compare variety of teaching methods to find out one which is most suitable for meeting the learning needs of the learner. The last step is reliability of assessment procedure. This step helps the curriculum developers to find out the effective of test material in the context of generating valid result to improve teaching and learning.

Evaluation stage is final stage of curriculum development. Without this stage, it will be difficult to determine the progress of a course. Though other stages are involved, it can be observed that evaluation of all these stages is embedded in this final stage. The steps involved in this stage seek to verify the effectiveness of the entire course before putting into practice. Therefore, continuous evaluation has to assume a prominent place in a course for improvement to take place.

Suggestions for curriculum development

It is believed that in every country, there are evidences of technological advancement, rapid population growth, desire to acquire new knowledge as well as building of new institutions and courses. The system of education today will certainly not be the same in future. The interest of the people in both general, vocational and special education has largely increased. Therefore, the following suggestions may be useful to curriculum developers:

- ❑ **Provision for health education:** noting the needs of the society, it will be necessary to have curricula which will be appropriate to create awareness on some health issues such

as disease control, sex education, alcohol and drug abuse, and hygiene.

- ❑ **Technical and vocational education:** as a result of rapid population growth and artificial intelligence, the problem of unemployment is fast approaching globally. The school leavers will require practical and skill based curricula to be self-reliance.
- ❑ Involvement of people from the grassroots in curriculum development is essential. Stakeholders such as the teachers, parents, community leaders and students can be consulted. Since they live in the communities and are familiar with the needs of the society, they will be able to provide useful inputs for curriculum development.
- ❑ **Inclusive education:** The future curricula will be expected to involve sufficient activities which adequately provide equal education for both normal and children living with disabilities.
- ❑ There will be the need for adequate curricula material in all levels of education. This will facilitate the choice of appropriate teaching methods in teaching and learning process.
- ❑ Adult education, family life education and recreation should be emphasized thoroughly in future curricula. This will not only achieve the needs of the senior citizens but provide knowledge about observing leisure time after work.

CONCLUSION

It can be said that curriculum development is key in the education process. It is on-going process as far as the needs and expectations of the people are concerned. The curriculum developers should be intimately linked with all that is necessary and goes on in the realm of human endeavors. The issues that have to be dealt with in the various stages of the development process need to be understood that the learner has to be leading the learning process while the teacher guides in the selecting of learning experiences, and evaluating the learning outcomes. If this is done, the goal of education will be realized.

It may also be concluded that the curriculum developers have to establish good contacts with communities where institutions are built to solicit necessary feedbacks which could be useful for

enriching the stages of curriculum development. Also, the curriculum developers should collaborate with the teachers, learners, parents and leaders of the communities to efficiently plan and develop the curriculum. The involvement of such personalities is significant and would ensure changes in education for national development.

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