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CURRICULUM DEVELOPMENT TASKS AND INNOVATIONS IN INSTRUCTIONAL STRATEGIES FOR STUDENT CENTRIC LEARNING

Dr. Flosy C. R. D'Souza
Associate Professor, Post Graduate Studies & Research in Education, St. Ann's College of Education, Mangalore, Karnataka

Abstract:

Education at different levels in India works within the boundaries of Prescribed or Recommended Curriculum, with less emphasis to teachers to be involved in Curriculum Design and Development process. The top down approach with less flexibility has resulted in Teacher centric Teaching rather than student centric Learning. Teachers have remained as passive agents in the Curriculum development process and follow the Curriculum in a mechanical manner. For decades the Curriculum focus and transactions has been Teacher centric. The changing scenario of higher Education with private, Deemed Universities and Autonomous Colleges coming up have opened new avenues and increased the need for teachers to involve themselves as active agents in the Curriculum development process. To meet the Academic Trends at the Global level our curricular transaction should be more learner centered, non-linear and self-directed. Student engagement is the key to learning. The greater the student's involvement or engagement in academic work, the greater is his or her level of knowledge and skill acquisition. The Curriculum should have scope for students to engage actively in the learning process. The Instructional strategies used in the classroom should enable the learners to acquire the desirable learning outcomes. This paper is an attempt to understand the bases of Curriculum, analyse the basic tasks in Curriculum development and suggest Active learning strategies that could be incorporated in selecting appropriate Instructional Strategies for student centric Learning.

Index Terms: Curriculum, Curriculum Development Tasks, Active Learning & Innovative Instructional Strategies

Introduction:

Education of human beings takes place in both natural and contrived environments. Although the learner is the key player in any kind of learning environment, the role of both the learner and the Teacher assumes greater significance in the contrived environment. In contrived environments the interaction between the learner and the teacher does not take place in a vacuum. Rather both the learner and Teacher in the educational process mediate their interaction with the help of certain pre decided learning experiences. This dimension in the teaching learning process and in pedagogic terms is called Curriculum. Curricula consists of five widely agreed upon dimensions or components: (a) a framework of assumptions about the learner and the society (b) aims and objectives; (c) Content or Subject matter with its selection, scope and sequence; (d) modes of transaction,for example, methodology and learning environments and (e) evaluation (Tyler,1949; Madaus & Stufflebeam, 1989). These components are interdependent in a manner analogous to the systems (muscular/respiratory/circulatory) of the human body. Any alteration in one system affects the structure and functioning of the others.They must all be well coordinated for the organism to live and develop. Just as the effective functioning of the human body is a product of the interactive orchestration of component systems, the holistic effect of a curriculum derives from the integration of the components.

For decades the Curriculum focus and transactions has been Teacher centric. Today, we see there is a major paradigm shift occurring in higher education**.** After a long period of time of focusing on teaching, there is a healthy shift to focusing on learning. While the instructional paradigm often focuses on increasing the quantity of information, the learning paradigm focuses on the efficiency and effectiveness of the learning process regarding what does the students know and what can they do with the new information. Many classroom teachers are searching for effective ways to change from a transmission mode of instruction to a focus on improving the learning and mastery of content material by students. This represents a change from being teacher-centered to learning-centered. Considering the Indian Education system, we find Education at almost all levels in India works within the boundaries of Prescribed or Recommended Curriculum, with less emphasis to teachers to be involved in Curriculum Design and Development process. The top down approach with less flexibility has resulted in Teacher centric Teaching rather than student centric Learning. Teachers have remained as passive agents in the Curriculum development process and follow the Curriculum in a mechanical manner. The changing scenario of higher Education with private, Deemed Universities and Autonomous Colleges coming up have opened new avenues and increased the need for teachers to involve themselves as active agents in the Curriculum development process. This paper focuses on the bases of Curriculum, the basic tasks in Curriculum development and suggests ways to improve learning by incorporating Student centered active learning strategies.

Foundations of Curriculum:

Curriculum development primarily depends on ideas that stem from three major fields: Philosophy, Sociology and Psychology. These traditional fields are considered as the foundations of Curriculum. They constitute the basis upon which curriculum is developed. Foundations of curriculum are those factors that influence curriculum decisions. Apart from the three traditional fields that form the bases of Curriculum, there are other determinants that include political issues, and technological factors. The curriculum developer has to keep in mind these factors to develop a curriculum that is relevant, implementable and useful to individual learners and society.

Basic Tasks of Curriculum Development:

Curriculum development is a comprehensive activity.It is not merely a process of introducing new courses or updating courses but is a process involving some basic tasks. The basic tasks involved in the development of Curriculum include;

- **Establishing the Philosophy**: All Curricula should be based on philosophy. Philosophy helps in formulation of goals & objectives and gives a definite direction to Curriculum. The Philosophy should be considered critically in the context of the institution and stated in terms of belief statements, which have a rationale for action. One the Philosophy is identified and stated in simple belief statements, the ground is ready for formulating goals that will guide the process of Development.
- **Assessing Needs:** A basic process underlying Curriculum development is need assessment. The main purpose of needs assessment is to determine the degree to which the stated philosophy of education is being implemented and the degree to which goals are being achieved. While assessing the needs objective methods/techniques should be used for data collection. However the needs assessment would involve views, perceptions of students, parents, educators and hence its nature could also be subjective.
- **Formulating Goals & Objectives:** After developing a philosophy and knowing the needs we now have to transform needs into goals and objectives as given in Figure 1.

Goals are the general statements of the results of educational endeavours and form the basis of educational planning. Objectives are more specific than goal statements and when objectives are stated in behavioural terms they become even more specific.The goals and objectives should be listed out. They should reflect the knowledge, skills, values and attitudes expected of the students once they complete the programme.

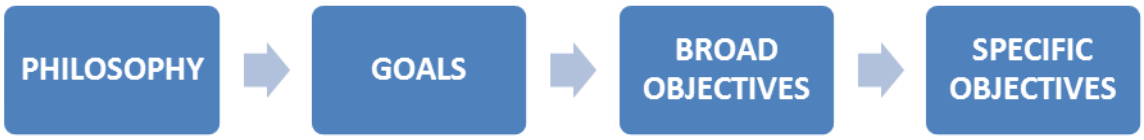

Figure 1: Formulating Goals and Objectives

- **Selecting the Content:** The process of content selection should be a cooperative endeavour. It should enable students to apply the gained knowledge in their day today life. The criteria for content selection should apply to the goals and specific objectives. Some curricularists place great emphasis on self-sufficiency of content, that too in the most economical manner. According to Israel Scheffler (1970) three types of economy should be ensured – economy of teaching effort and educational resources; economy of student efforts and economy of subject matter's extent of generalization. It helps the learners to become self-sufficient and self-reliant. Another obvious criterion is Learnability, which is related to the appropriateness of the selected content. The content should be within the range of student experiences.
- **Organizing Content:** The organisation of content determines to a great extent the direction which learning will take. According to Hunkins and Ornstein (1988), "Faced with organizing content for the Curriculum, Programme planners usually use two organizers – logical and psychological". In following the logical organization, they organize content according to certain rules, to make it manageable. Certain concepts are central to the content, and others are pre-requisites to other concepts. In Economics, e.g., the concepts of supply and demand are major conceptual organizers. Without these concepts, the concepts of Capital & Labour or the market place cannot be grouped.Some curriculum planners consider Psychological Organization which considers the manner in which people process information & learn. They believe that content should be organised such that the concrete is experienced before the abstract or simpler concepts precede complex ones and so on. This is the psychological principle of content organisation. A well organised Curriculum would ensure a definite sequence, continuity and integration of the various aspects
- **Selecting Curriculum Experiences:** Selection of appropriate Curriculum experiences has always been a difficult aspect of Curriculum Development. The teacher must have flexibility in selecting curricular experiences and should carry out the instructional programme. Curriculum planners need to provide a balanced instructional programme providing varied learning experiences. According to Wiles & Bondi (1989) Learning experiences can be classified as:
  - ✓ Personal development of the individual (Physical activities, Self development activities)
  - ✓ Skills of continued learning (Diagnosis of learning needs, structuring instructional programme – individualised)
  - ✓ Education for Social Competence (Learning experience in different subjects)

Curriculum developers can use this classification in order to provide varied Learning Experiences & ensure balance in Instructional programmeA crucial factor in selection of curriculum experiences is that of Relevance. The chosen experiences should reflect recent knowledge and social & cultural trends of the times, so that it is proves to be useful. The Curriculum planners should be attuned to the changing times to equip the students to face the future.

- **Selecting Appropriate Instructional Strategies:** In order to translate selected curricular experiences into reality, the teacher should also decide the instructional strategies to be adopted. They should list out the methods and materials to be used. For example: Lecture Discussion, Group work, Guide Library work, Field trips etc.These Strategies should be analysed in terms of the degree to which they i) Meet the needs of the student population and ii) Match the nature of the programme goals and objectives.
- **Evaluating Learning & Instruction:** The last stage in the process of Curriculum Development is Evaluation of the curriculum. Evaluation aims to determine the extent to which the objectives of the curriculum have been achieved through its implementation. The tripolar relationship between objectives, learning experiences and evaluation can be expressed in figure 2.

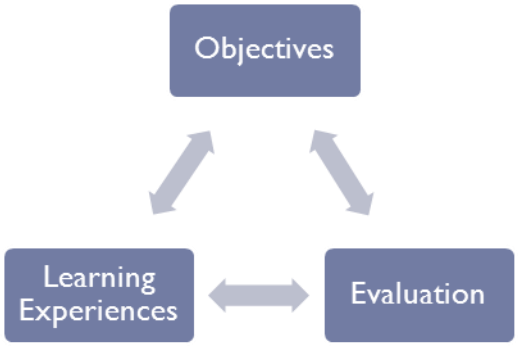

Figure 2: Interdependence of Curriculum Components - Tripolar relationship

The outcome of curricular evaluation provides useful feedback for improvement. Curriculum evaluation can be carried out during the process of Curriculum Development itself. This is called Formative evaluation. The result of formative evaluation gives feedback on every aspect of curricular component, which can thus be modified, accepted or rejected. All aspects of the programme should be regularly and systematically reviewed for making changes and improvements in the instructional programme.

Curriculum and Student Centric Learning:

The traditional approach to Curriculum has been Subject centered and Teacher Centered. To meet the academic trends at the global level our curricular transaction should be more learner centered, activity centerd, non-linear and self-directed. As there is Growing emphasis on competency, curricular innovations should enable the students to engage actively in the learning process. Student engagement is the key to learning. The greater the student's involvement or engagement in academic work, the greater is his or her level of knowledge and skill acquisition. The Curriculum should have scope for students to engage actively in the learning process. The Instructional strategies used in the classroom should enable the learners to acquire the desirable learning outcomes.

Changing Role of Teachers in Student Centric Learning:

Student-centered classrooms include students in planning, implementation, and assessments. Involving the learners in these decisions will place more work on them,

which can be a good thing. Teachers must become comfortable with changing their leadership style from directive to consultative -- from "Do as I say" to "Based on your needs, let's co-develop and implement a plan of action."Teacher should assume the role of a facilitator in the student centric learning. The teacher should thus adapt to the following changes.

- ✓ Allow Students to Share in Decision Making**:** Placing students at the center of their own learning requires their collaboration. They need a voice in *why*, *what*, and *how* learning experiences take shape.
- ✓ Believe in Students' Capacity to Lead**:** Give students the chance to take charge of activities, even when they may not quite have all the content skills. Reduce teacher direct instruction by increasing student-led learning activities.Recognize That Students Are Reflections of Us as Learners.

Student Centered Learning Strategies – Active Learning:

In the traditional approach to college teaching, most class time is spent with the professor lecturing and the students watching and listening. The students work individually on assignments, and cooperation is discouraged. Student-centered teaching methods shift the focus of activity from the teacher to the learners. The past two decades has seen an explosion of interest among college faculty in the teaching methods variously grouped under the terms active learning and cooperative learning (Meyers and Jones, 1993; Silberman, 1996). A large amount of research attests to the benefits of active learning (Hake, 1998; Wright and others, 1998). These methods include active learning, in which students solve problems, answer questions, formulate questions of their own, discuss, explain, debate, or brainstorm during class; cooperative learning, in which students work in teams on problems and projects under conditions that assure both positive interdependence and individual accountability; and inductive teaching and learning, in which students are first presented with challenges (questions or problems) and learn the course material in the context of addressing the challenges. Inductive methods include inquiry-based learning, case-based instruction, problem-based learning, project-based learning and discovery learning, Student-centered methods have repeatedly been shown to be superior to the traditional teacher-centered approach to instruction.

Active Learning Strategies in the College Classrooms:

Active-learning Strategies are those activities that an instructor incorporates into the classroom to foster Active Learning. Active learning includes everything from listening practices that help students absorb what they hear, to short writing exercises in which students react to lecture material, to complex group exercises in which students apply course material to “real life” situations and/or new problems. The term *cooperative learning* covers the subset of active-learning activities that students do in groups of three or more, rather than alone or in pairs. Cooperative-learning techniques generally employ formally structured groups of students assigned to complex tasks, such as multiple-step exercises, research projects, or presentations. Cooperative learning is to be distinguished from the more general term *collaborative learning,* which refers simply to any situation in which groups work together. Cooperative learning uses groups to work toward a common goal with positive interdependence, individual accountability, and heterogeneous groupings (Cooper & Mueck, 1990).

Active learning strategies can be exercises for individual students, for pair of students or small group of students. Exercises for individual students which require minimum time and effort—both in preparation and in practice—of students and instructor, to the final group, “cooperative-learning strategies,” which involve the

greatest commitment of time and energy. Table 1 gives the Active learning strategies that can be used in a student centric learning classrooms.

Table 1: Active Learning Strategies for Student Centric Learning at Individual, pair and Group levels

Individual	Pair	Small Groups
▪ One Minute Paper ▪ Affective Response ▪ Muddiest/Clearest Point ▪ Reading Quiz ▪ Clarification Pauses ▪ Response to a Demonstration ▪ Question & Answer ▪ Wait Time ▪ Student summary of another students response ▪ Daily Journal ▪ Concept Mapping/Mind mapping etc.	▪ Discussion ▪ Note Comparison/Sharing ▪ Evaluation of another students work etc.	▪ Active Review sessions ▪ Work at the Blackboard ▪ Pros/Cons Grid – Visual List ▪ Role playing ▪ Panel Discussion ▪ Debate ▪ Games ▪ STAD(Student Teams Achievement Division) ▪ Jigsaw Cooperative Model ▪ Group Investigation Problem Solving Model etc.

Conclusions:

Student Centric learning will be possible by incorporating active learning strategies into every component of course design. There are a number of empirical evidences proving the effectiveness of Active learning strategies in College classrooms. It is also found that they produce overwhelmingly positive results, both in increased academic achievement and in enhanced social and psychological benefits to students. (Faust, J. L., & Paulson, D. R., 1998) These experiences will be encouraging to faculty who may be making an attempt in incorporating Active Learning in the Curriculum Development and considering active-learning strategies for their own classes.

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