

Curriculum Models: Product versus Process.

Abie, Samuel Ph.D

Department Of Curriculum/Instruction Technology, Ignatius Ajuru University of Education, Port Harcourt,
Nigeria

Abstract

At the beginning of this article, there is a brief outline of the nature of the curriculum and models. This leads into a discussion of curriculum models in which 'product' and 'process' models are set out and discussed. The strengths and weaknesses of both approaches to the curriculum are outlined and issues relating to the choice of model are advanced. When we reflect on the curriculum, we ought to keep a number of things in our thoughts. There are the needs of individual patients and how these might best be met, and there are the needs of the students. Beyond the individual, there are societal needs; the need for an efficient and a humane service. Coupled with this is the need for skilled manpower to provide this service. There are also vocational aspects. Vocational is taken here to mean fitted for the task. To be fitted for the task means having a store of relevant know/edge, supported by a foundation of science and a motive of service, and the ability to apply this knowledge in a variety of circumstances. It means using this knowledge in an ethically acceptable way which embodies respect for persons. And it also means an understanding of the ethics, morals and values; in other words it means going through a process of socialization.

Introduction

In this paper, it is proposed to examine two approaches to the curriculum (the product and the process) in relation to the education. But first, it is necessary to deal with the key concepts of curricula and models. There is a plethora of definitions of the curriculum. Those by Tyler (1949), Neagley & Evans (1967), In low (1966) and Johnson (1967) are but a few examples. However, the definition which it is proposed to use here is the one by Stenhouse (1975). A curriculum is an attempt to communicate the essential principles and features of an educational proposal in such a form that it is open to critical scrutiny and capable of effective translation into practice. There are a number of features of this definition which make it attractive. The first is the concentration on essential principles; this should avoid getting lost in a mass of detail likely to cloud the issues. A curriculum ought to be reviewed and subjected to critical scrutiny from time to time. That it should be capable of being translated into practice is a fundamental requirement since this must be regarded as the acid test for any educational proposal relating to a vocation. According to Page & Thomas (1977) a model is a means of transferring a relationship or process from its actual setting to one in which it can be more conveniently studied. Fawcett (1984) suggests that the term con capital model, and synonymous terms such as conceptual framework and conceptual system refer to global ideas about the individual groups, situations, and events of interest to a discipline. According to Lippett (1973) conceptual models have existed since people began to think about themselves and their surroundings. He identified examples of models in the early Egyptian and Chinese civilizations and in disciplines such as physics, medicine, mathematics, chemistry and biology. Lippett (1973) made the point that models were influential in shaping the world. Examples given in this context were Marx & Engels (1968), Einstein (1950) and Sigmund Freud (1914). Marx's model related to political, philosophical, social and economic matters and provided a framework for communist ideology. Einstein's model of relativity paved the way to the atomic era. Freud's model provided a structure for the understanding of man in the context of psychoanalysis.

MODELS OF THE CURRICULUM

The Further Education Curriculum Review and Development Unit. London (FEU 1980) has set out seven variants of curriculum models. Each model is based on certain assumptions about the students for whom it is designed. In the first place, the deficiency model is based on the assumption that the students have learning deficiencies which need to be corrected before progress can be made. The deficiencies may be in the areas of literacy, numeracy, interpersonal or manipulative skills. On the other hand, a deficiency may relate to a student's self- image or a lack of recognition of his learning needs.

The competency model, as its name suggests, is concerned with the 'acting' part of learning in the form of performing specific skills. Practical skills would be considered in this context.

A model which may be described as information-based would be concerned with the acquisition of knowledge such as the Knowledge needed for a student to function in an informed and in an understanding manner. In a

sense, all education is information-based, but this model highlights the acquisition of knowledge rather than other aspects of the educational process.

Socialization, as its name implies, is concerned with the initiation of the student into the social milieu. It is characterized by the development of attitudes and values, and assumptions about the requirements of the world of work, vocational matters and society. The four models which have just been described rather briefly are all **product models**, that is, the emphasis is placed on the outcome of a learning experience.

The next group of models to be considered are all process models. In this context, the emphasis is on learning acquired from experience of work and life, that is experiential learning. It comprises open-ended student activities with developing tendencies and capacities. The emphasis is on the quality of the learning as it takes place rather than on predetermined outcomes.

The reflective model is an example of a process model. The essence of this model is developing in the student the capacity to look at experience or data in alternative ways. It is concerned with working out possible relationships between matters being studied, making generalizations and the development of conceptual frameworks by the student. The reflective model is mainly concerned with the 'knowing' aspect of learning, but it is also concerned with the feeling aspect.

The 'counselling model'

This model is mostly concerned with the 'feeling' aspect of learning. This model is characterized by a concern with understanding and control of personal behavior and that of others. Counselling is sometimes described as a helping relationship that is, helping the person to know himself/herself better. It allows feelings to be expressed. This is particularly important in a case where feelings may be acting as a barrier to learning.

Product model

The FEU (1980) represents the product model of the curriculum as leading to some kind of desirable end-product. Examples given are knowledge of certain facts, mastery of specific skills and competencies, and acquisition of certain 'appropriate' attitudes and values. Among the curriculum theorists in the product mode are Bloom et al. (1956), Gagne (in the form of analysis and interpretation of data, making inferences, setting priorities and stating the problems as a basis for planning are all required).

To move on to planning

In a process model, intentions are used, where in a product model, behavioural objectives would be used. Intentions in keeping with the process approach of the curriculum are more open-ended than objectives. But while it is open-ended, there is a case for identifying what it is intended that students will develop.

A product approach to the curriculum would specify learning outcomes in the cognitive, affective and psychomotor domains. This fragmentation of human abilities has no place in a process approach to the curriculum.

The process approach is a holistic approach and therefore regards human abilities as a unity. However, there is some difficulty in maintaining this unity. Human abilities are regarded as tendencies (attitudes, morals, values) and capacities (information processing skills, problem solving skills, social skills, manipulative skills, observation, and communication). However, the tendencies and capacities are closely intertwined at all times. The intention of a process curriculum would be to provide opportunities to develop these abilities. The means of developing these abilities would be through providing appropriate learning experiences. The implementation phase of the process curriculum is based on the notion that learning is an active process on the part of the learner, that it is concerned with solving meaningful problems. This means, of course that the student either chooses the problem himself/herself or at least negotiates the choice with the teacher. A predetermined detailed curriculum, apart from some guiding principles would be inappropriate. An outline curriculum with opportunities for development would probably be the most suitable. A range of teaching and learning strategies are used in the learning process. But the emphasis is on independent and individualized learning.

There is a move away from teacher-centredness towards student-centredness. At the centre is the individual, but in contrast to the product-model, the nature of the learning experiences is very different. In the process model, the individual is helped to develop skills to go out and explore the world.

Conclusion

The learner has more control over, and responsibility for his/her own learning. In the arguments about product versus process models of the curriculum, the matter of evaluation is a crunch issue. McKenzie (personal communication) suggests that a process model should tend to make a product model redundant. This is because a transition is occurring to a self-sustaining, self-explanatory type of activity whose rationale is internal to that activity.

However, McKenzie (1985) accepts that in the case of basic skills, safety in practice can never be taken for granted. There is thus a place for the assessment of skills. He goes on to differentiate between a product and process view of assessment. For the former, the manifestation of skills is the greater part of the aim or purpose of the activity; for the latter, the context in which these skills are manifested is crucial. Were they mutually identified by learner and teacher, as things to be mastered in the pursuit of becoming a competent practitioner? Were they assimilated within an appropriate framework of commitment and significance? These are the sort of issues to be taken into account when considering process intentions.

Self-assessment, involving reflection/review, must be regarded as an integral part of the process model of the curriculum. Assessment should also be a continuous activity. While it would not be impossible, the process model does not readily lend itself to final examinations. There remains, however, the issue of public evidence concerning competence and safety in practice which will be a matter of concern for statutory bodies, the public as well as individual patients. It follows that there must be checks before a licence to practice teaching is awarded. At one level projects could serve a useful purpose.

A project is a student activity which is designed, planned and carried out by a student. In project work students are given freedom, with the minimum of guidance, to tackle the project in their own way.

The role of the teacher is that of advisor and counsellor.

The terms 'facilitator' and 'enabler' of learning are also used in this context. A project is made up of several stages so that the end product, whatever it may be, is not the project. The project includes the activity of planning and organizing the work before it is with a process model. The pre specification of behavioural objectives restricts the teacher from taking advantage of teaching opportunities which occur unexpectedly. The nature of the process model is such that this is less likely to happen. Measurement is a feature of the product model, but may be criticized on the grounds that measurability which can be objectively and mechanically measured is somewhat dehumanizing. The process model may be criticized because it does not lend itself so readily to measurement, but in its defence it can be argued that it is not dehumanizing. Measurability implies accountability; teachers might be judged on their ability to produce results and thus put the clock back as far as educational practice is concerned. The process model might be rejected by those who regard measurement highly. These are some of the 'pros and cons' relating to the two curriculum models under discussion. At the end of the day which model is chosen will perhaps depend on the values of the chooser as much as on anything else.

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