

# NTA UGC NET EDUCATION

**SAMPLE THEORY - *(English Medium)***

- \* Development Foundation Curriculum
- \* Meaning and Principles of Curriculum Construction
- \* Curriculum development



## **UGC NET - EDUCATION**

### **SAMPLE THEORY**

#### **PAPER-II**

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## DEVELOPMENT FOUNDATION CURRICULUM

### Definition of Curriculum

The Term “Curriculum” has various interpretations formulated by experts in the field of curriculum development since the past until today. These interpretations differ from one another, in accordance with the core reemphasis and views from the experts concerned. Discuss the term comes from the Latin curriculum, namely “Curricula”, meaning the distance that must be followed by a runner. Curriculum is a set of plans and setting of objectives, content and teaching materials and methods used to guide the implementation of instructional activities to achieve certain educational goals. Curriculum is the core of education and have an impact on all educational activities. Given the importance of curriculum in education and human life, then the curriculum can not be done arbitrarily. Preparation of the curriculum requires strong foundations, which are based on the results of deep thinking and research. The curriculum is structured to achieve national education goals with the stage of development of learners and conformance with the environment, national development needs, development of science and technology and the arts, according to the types and levels of each educational unit.

Curriculum Development based on the following factors:

1. The Objective of National Education Philosophy and serve as a basis for formulating institutional objectives that in turn become the basis in formulating curriculum objectives, is a unit of education.
2. Social Culture and Religion prevailing in our society.
3. The Development of Students, which refers to characteristics of the development of learners.
4. Environmental circumstances, which in a broad sense includes Humane Environment (interpersonal), Environmental Science and Technology Culture, including the (cultural), and the Environment (**bioekologi**), and the Natural Environment (geoekologis).

5. Development Needs, which include the needs of development in the economic, welfare, legal, defense, and so forth.
6. Developments in Science and Technology in accordance with value systems and cultural nation and humanity.

Sixth factor-crochet hooks to each other with each other. Philosophy and educational goals. Educational philosophy contains the values or ideals of society. Educational philosophy became the basis for designing educational objectives, principles of learning, and computer learning experiences that are educational. Philosophy of education is influenced by two main points, namely

- (1) Ideals of community, and (2) Needs of the students who live in the community. The values of educational philosophy should be implemented in everyday behavior. This shows the importance of philosophy of education as the foundation for the development of curriculum

## **CURRICULUM FOUNDATION**

Nana Syaodih Sukmadinata (1997) suggested four main runw ay in curriculum development, namely (1) Philosophical, (2) Psychological, (3) Socio- Cultural, and (4) Science and Technology.

### **1. Philosophical Foundation**

Philosophy plays an important role in the development curriculum. Just as in the Philosophy of Education, we are introduced to various schools of philosophy, such as: Perennialism, Essentialism, Existentialism, Progressivism, and Re-constructionism. In curriculum development was always grounded in the flow - the flow of a certain philosophy, so that will color to concept and implementation of a curriculum that is developed. By referring to thoughts Ella Yulaelaw ati (2003), below -described on the content of the respective schools of philosophy, related to curriculum development.

- a. Perennialism more emphasis on immortality, ideals, truth and beauty of cultural heritage and social impact of certain. Knowledge is considered more important and less attention to their daily activities.
- b. Essentialism stressed the importance of cultural inheritance and gift of knowledge and skills so that learners can become a useful member of society.
- c. Existentialism emphasizes the individual as a source of knowledge about life and meaning. To **memahami** life one must understand himself.
- d. Progressivism emphasizes the importance of serving the individual differences, learner-centered, experiential learning and process variations. Progressivism a basis for studying the development of active learners.
- e. **Rekonstruktivisme** is a further elaboration of progressivism flow. In **rekonstruktivisme**, future of human civilization is emphasized.

## 2 Psychological Foundation

Nana Syaodih Sukmadinata (1997) suggested that there are at least two areas of psychology that underlies the development of curriculum that is :

(1) Psychology of Development and (2) Psychology of Learning.

Developmental Psychology is the study of individual behavior with respect to its development. Still regarding the psychological foundation, Ella Yulaelawati presents psychological theories that underlie Competency-Based Curriculum. Citing thought Spencer, Ella **Yulaelawati** competence suggested the notion of competence is "a fundamental characteristic of someone who is a causal relationship with the reference criteria and effective or the best performance in a job at a situation." Furthermore, also raised about five types of competence, namely:

- a. **Motifs**; something that one has to think consistently or desire to perform an action;
- b. Congenital; namely **fisik** characteristics that consistently respond to various situations or information;
- c. Self concept; i.e. behavior, value or image of a person;
- d. Knowledge; namely a person has specific information;



- e. Skills; the ability to do the job physically and mentally.

The fifth competency has practical implications for human resource planning or education. Skills and knowledge tend to be more visible on the surface characteristics of a person, while the concept of self, an innate and hidden motives more and more deeply, and is central to one's personality. Surface competence (knowledge and skills) are more easily developed training is appropriate to ensure these capabilities.

### Socio-Cultural Foundation

The Curriculum can be viewed as a design education. As a design, curriculum implementation and determine educational outcomes. We understood that education is an effort to prepare students to enter **publckelingkungan**. Education is not just for education alone, but it gives stock of knowledge, skills and values to live, work and achieve further development in the community. Each community-each has its own culture that govern social life patterns and the pattern of relationships between members of the community. One important aspect in the socio-cultural system is the order of the values that govern how **berkehidupan** and its citizens behave. can be derived from religious, cultural, political or other aspects of life. Thus, the curriculum should be developed **mempertimbangkan**, respond to and based on socio-cultural development in a society, whether in the context of local, national and global.

### The Foundation of Science and Technology

At First, Science and Technology of Human Beings is still relatively simple, but since the Middle Ages the strong growth. Several discoveries of new theories continue until now and certainly will continue to progressively expand in the future. Human mind has been able to reach those things which previously was impossible. In ancient times, maybe people would consider impossible if humans can set foot on the Moon, but thanks to advances in the field of Science and Technology in the mid-20th century, the aircraft successfully landed on the Moon Apollo and Neil Armstrong was the first person to set foot on the Moon. Rapid progress of the world in the field of information and technology in the last two decades has

an effect on human civilization beyond the reach of human thought previously. This influence is seen in the shifting social order, economy and politics that require a new balance between the values, thoughts and ways of life that applies to local and global context.

In addition, current knowledge in this century required a knowledge society through lifelong learning and high quality standards. The nature of knowledge and skills that must be controlled society is very diverse and sophisticated, so we need a curriculum that is accompanied by meta-cognitive ability and competence to think and learn how to learn (learning to learn) to access, select and assess the knowledge, as well as an ambiguous situation and **menngatasi** adaptable to any uncertainty. Developments in the field of Science and Technology, particularly in the areas of transportation and communication have been able to change the order of human life. Therefore, the curriculum should be able to accommodate and anticipate the speed of developments in science and technology for human welfare and survival.

## Meaning and Principles of Curriculum Construction

### Introduction:

Curriculum is an important element of education. Aims of education are reflected in the curriculum. In other words, the curriculum is determined by the aims of life and society. Aims of life and society are subject to constant change.

Hence, the aims of education are also subject to change and dynamic. The aims of education are attained by the school programmes, concerning knowledge, experiences, activities, skills and values. The different school programmes are jointly known as Curriculum.

### Meaning of Curriculum :

The term curriculum has been derived from a Latin word '**Currere**' which means a 'race course' or a runway on which one runs to reach a goal. Accordingly, a curriculum is the instructional and the educative programme by following which the pupils achieve their goals,

ideals and aspirations of life. It is curriculum through which the general aims of a school education receive concrete expression.

### **Principle of Curriculum Construction:**

The content of curriculum is determined on the basis of some academic principles which are stated below:

#### **(1) Aims of Education and Objectivity:**

Life is complex. A Curriculum should reflect the complexities of life. In other words, in framing the curriculum one should take into consideration the aims and objectives of education.

#### **(2) Child-Centric Principle:**

The curriculum should be framed according to the actual needs, interests and capacities of the child. That means a curriculum must be child-centric as modern education is child-centered.

#### **(3) Principles of Civic and Social Needs:**

Man is a social being. He lives in the society. The child develops in the society. Modern education aims at both developments of the individuality of the child as well as the development of the society.

#### **(4) Principle of Conservation:**

Man has conserved experiences very carefully for better adaptability. Education is regarded as a means of deserving the cultural heritage of humanity. The school serves two-fold functions in this regard- preservation of the past experiences and transmission of experiences.

#### **(5) Principles of Creativeness:**

Education not only conserves that past experiences of humanity but also helps an individual to develop his innate potentialities.

#### **(6) Principle of Forward-looking:**

The aim of life-centered education is not limited to the present life-situations in the family and society. Hence, education must prepare the child of shouldering future responsibilities.



So in framing the curriculum we must take into consideration the future needs of the child as well as the needs of the society.

**(7) Principle of Preparation for Living:**

The children should know the various activities of the environment around them and how these activities are enabling people to meet their basic needs of food, shelter, clothing, recreation, health and education.

**(8) Principle of Integration and Correlation:**

Subjects should be arranged Logically and Psychologically in accordance with the child's developing interests.

**(9) Principle of learning Ability:**

Every item should be learnt. An item should not only be learnable, it should also have utility.

**(10) Principle of Individual Difference:**

The curriculum should be framed in such a way that every individual can have opportunity for self-expression and development. The curriculum should be based on the psychology of individual difference, which can meet the complexities of modern democratic society.

**(11) Principle of Social Relevancy and Utility:**

Subjects should not be determined on the basis of their disciplinary value but on the basis of their intrinsic value, social relevancy and utility.

**(12) Principle for Utilization of Leisure:**

Variety of subjects such as games and sports, fine arts, subjects of aesthetic value are to be introduced in the school programme to utilize leisure.

**(13) Principle of Variety and Flexibility:**

The curriculum should include such activities and experiences, which may facilitate his normal development. The curriculum for girls should naturally be different from that of boys; boys and girls have different needs and attitudes.

**(14) Principle of Time:**

Relative significance and importance of each subject in the curriculum has to be judged and determined in the light of the time available in the timetable, which is regarded as the mirror of the school programme

## Types of Curriculum

Educators are curriculum developers, yet finding a common definition for the term curriculum can be a daunting challenge. According to English (2000), "curriculum is any document that exists in a school that defines the work of teachers by identifying the content to be taught and the methods to be used".

Teachers and administrators often focus on the *Big Three*, the written, taught and tested curriculum, in order to maximize the learned curriculum (Glatthorn, 1987). The brief descriptions below will introduce educators to types of curriculum which impact student achievement. This short list can assist collaborative teams in identifying areas of strengths and weaknesses within a school as teachers and administrators continue to develop curriculum and assess student understanding of key concepts and skills. A general awareness of each of the curriculum types listed below can assist teachers and administrators in increasing student understanding and raising student achievement.

## Listed in Alphabetical Order

Curriculum Type	Description
Aligned	<p>“Teaching alone will not improve test scores. Teaching has to be <b>aligned</b> (on task) and purposive (cumulative)”</p> <p>“One of the tasks of curriculum leadership is to use the right methods to bring the written, the taught, the supported, and the tested curriculums into closer <b>alignment</b>, so that the learned curriculum is maximized” (Glatthorn, 1987).</p>
Concept-Based	<p>“Teachers in thinking classrooms understand how to use <b>concepts</b> to integrate student thinking at a deeper level of understanding – a level where knowledge can be transferred to other situations and times” (Erickson, 2007).</p> <p><b>Concepts</b> are timeless, universal, abstract and broad. The conceptual transfer of knowledge includes the application of concepts or universal generalizations across time, cultures or situations (Erickson, 2007).</p>
Differentiated	<p><b>Differentiated instruction</b> occurs when a teacher proactively plans varied approaches to what students need to learn, how they will learn it, and/or how they can express what they have learned in order to increase the likelihood that each student will learn as much as he or she can as efficiently as possible (Tomlinson, 2003).</p> <p>“In <b>differentiated classrooms</b>, teachers provide specific ways for each individual to learn as deeply as possible and as quickly as possible, without assuming one student's road map for learning is identical to anyone else's” (Tomlinson, 1999).</p>

Hidden	<p>The messages of <b>hidden curriculum</b> may support or contradict each other as well as the written curriculum. For example, while school social studies curriculum typically emphasizes and even celebrates democratic political systems and principles, such as one person-one vote, majority rule and minority rights, separation of church and state, equality before the law, and due process, these principles are not always practiced in public school classrooms and corridors.</p>
Guaranteed and Viable	<p>“If teachers can layout a sound – a viable – set of standards and can then guarantee (more or less) that these standards actually get taught, we can raise levels of achievement immensely” (Schmoker, 2006 ).</p> <p>In his book <a href="#"><i>What Works in Schools</i></a>, Robert Marzano (2003) shares research that affirms the fact that the number one factor that increases levels of learning is what gets taught. Marzano calls this a “<b>guaranteed and viable curriculum</b>.”</p>
Learned	<p>The <b>learned curriculum</b> is what the students actually learn from the taught curriculum. Common formative assessments assist educators in monitoring the written and taught curriculum while assessing student understanding.</p> <p>“The gap between what is taught and what is <b>learned</b>—both intended and unintended—is large ” (Cuban, 1992).</p>
Null	<p>The <b>null curriculum</b> is that which is not taught in schools.</p> <p>Eisner (1994) suggests that what curriculum designers and/or teachers choose to leave out of the curriculum—the <b>null curriculum</b>—sends a covert message about what is to be valued .</p>

## Purposeful

“All learners benefit from and should receive instruction that reflects clarity about ***purposes*** and priorities of content” (Tomlinson & McTighe, 2006).

“Many educational programs do not have ***clearly defined purposes***” (Tyler, 1949).

“Schooling at its best reflects a ***purposeful*** arrangement of parts and details, organized with deliberate intention, for achieving the kinds of learning we seek”.

## Received

The ***received curriculum*** is not always the intended or taught curriculum. Each student brings their own background and prior knowledge to the classroom. Student understanding is impacted by each student’s perception of the aligned, hidden, null, spiral, and tested curricula.

Understanding of the ***received curriculum*** is critically important as it guides the curriculum and instruction decisions made by teachers and administrators. Just because content was *taught* does not necessarily mean it was *caught*. In a Professional Learning Community educators meet on a regular basis to assess the received curriculum and to provide information on student understanding to teachers and administrators at the next grade level.

## Rigorous

“Academic ***rigor*** is an essential characteristic of effective curriculum, instruction and assessment. Students learn when they are challenged to use the full range of their talents and intellectual abilities to address authentic and complex academic tasks in professional and real-life events. All students should have the opportunity to participate in qualitatively different academic environments that build upon their interests, strengths and personal goals” (NCDPI).



Spiral	<p>Bruner (1960) wrote, “ A curriculum as it develops should revisit this basic ideas repeatedly, building upon them until the student has grasped the full formal apparatus that goes with the m” .</p> <p>Analyzing curriculum maps allows teachers and administrators to reflect upon the <i>spiral curriculum</i>. Another strategy for analyzing the <i>spiral curriculum</i> is called vertical alignment.</p> <p>Sergiovanni (1990) wrote, “Schools have multiple and often conflicting purposes that make exact alignment of structure and purpose difficult, if not impossible ” .</p>
Taught	<p>The <i>taught curriculum</i> is what teachers actually teach in the classroom. Traditionally, the written curriculum (state and local documents) has not matched the taught curriculum among teachers within a school.</p> <p>Jacobs (1997) wrote, “If there are gaps among teachers within buildings, there are virtual Grand Canyons among buildings in a district .</p>
Tested	<p>The <i>tested curriculum</i> provides valuable feedback about each student’s understanding of essential content, concepts and skills.</p> <p>If the <i>tested curriculum</i> is not aligned with the written curriculum then teachers, students and parents will have a difficult time assessing the student understanding.</p> <p>“The extent to which any test is useful in Re teaching any given curriculum is the extent to which that test does indeed measure the curriculum in the first place ”</p>

Time less & Timely	As curriculum developers we are required to make ongoing decisions about curriculum. Heidi Hayes Jacobs said, “There’s a need for both <i>timeless</i> curriculum content and <i>timely</i> content. What seems to be falling by the wayside is time ly conte nt. We have to make decisions about what we shed and what we keep—and some of what we’re holding on to is predicated on outdated ideas”
21 <sup>st</sup> Century	According to the North Carolina Department of Public Instruction:  “All students will graduate from a rigorous, relevant academic program that equips them with the knowledge, skills, and dispositions necessary to succeed in both post-secondary education and <i>21st Century</i> careers and to be participating, engaged citizens.”

## Elements/Components of the Curriculum

The Nature of the elements and the manner in which they are organized may comprise which we call a curriculum design.

### Component 1: Curriculum Aims, Goals and Objectives

Aims: Elementary, Secondary, and Tertiary

Goals: School Vision and Mission

Objectives: Educational Objectives

**Domains :**

1. Cognitive – Knowledge, Comprehension, Application, Analysis, Synthesis, Evaluation
2. Affective – Receiving, Responding, Valuing, Organization, Characterization
3. Psychomotor – Perception, Set, Guided Response, Mechanism, Complex Overt Response, Adaptation, Origination

**Component 2: Curriculum Content or Subject Matter**

Information to be learned in school, another term for knowledge (a compendium of facts, concepts, generalization, principles, theories.

1. Subject-centered view of curriculum: The Fund of human knowledge represents the repository of accumulated discoveries and inventions of man down the centuries, due to man's exploration of his world.
2. Learner-centered view of curriculum: Relates know ledge to the individual's personal and social world and how he or she defines reality.

Gerome Bruner: "Knowledge is a model we construct to give meaning and structure to regularities in experience"

**Criteria used in selection of subject matter for the curriculum :**

1. Self-Sufficiency – "less teaching effort and educational resources, less learner's effort but more results and effective learning outcomes – most economical manner (Scheffler, 1970).
2. Significance – contribute to basic ideas to achieve overall aim of curriculum, develop learning skills.
3. Validity – meaningful to the learner based on maturity, prior experience, educational and social value.
4. Utility – usefulness of the content either for the present or the future.
5. Learnability – within the range of the experience of the learners.

6. Feasibility – can be learned within the time allowed, resources available, expertise of the teacher, nature of learner.

**Principles to follow in organizing the learning contents (Palmer, 1992):**

1. **BALANCE:** Content curriculum should be fairly distributed in depth and breadth of the particular learning area or discipline. This will ensure that the level or area will not be overcrowded or less crowded.
2. **ARTICULATION:** Each level of subject matter should be smoothly connected to the next, glaring gaps or wasteful overlaps in the subject matter will be avoided.
3. **SEQUENCE:** This is the logical arrangement of the subject matter. It refers to the deepening and broadening of content as it is taken up in the higher levels.

The Horizontal connections are needed in subject areas that are similar so that learning will be related to one another. This is INTEGRATION.

Learning requires a continuing application of the new knowledge, skills, attitudes or values so that these will be used in daily living. The constant repetition, review and reinforcement of learning is what is referred to as CONTINUITY.

**Component 3 – Curriculum Experience**

Instructional strategies and methods will link to curriculum experiences, the core and heart of the curriculum. The instructional strategies and methods will put into action the goals and use of the content in order to produce an outcome.

Teaching strategies convert the written curriculum to instruction. Among these are time-tested methods, inquiry approaches, constructivist and other emerging strategies that complement new theories in teaching and learning. Educational activities like field trips, conducting experiments, interacting with computer programs and other experiential learning will also form part of the repertoire of teaching.

Whatever methods the teacher utilizes to implement the curriculum, there will be some guide for the selection and use, here are some of them:

1. Teaching methods are means to achieve the end.
2. There is no single best teaching method.
3. Teaching methods should stimulate the learner's desire to develop the cognitive, affective, psychomotor, social and spiritual domain of the individual.
4. In the choice of teaching methods, learning styles of the students should be considered.
5. Every method should lead to the development of the learning outcome in three domains.
6. Flexibility should be a consideration in the use of teaching methods.

#### **Component 4 – Curriculum Evaluation**

To be effective, all curricula must have an element of evaluation. Curriculum evaluation refers to the formal determination of the quality, effectiveness or value of the program, process, and product of the curriculum. Several methods of evaluation came up. The most widely used is Stufflebeam's CIPP Model. The process in CIPP model is continuous and very important to curriculum managers.

**CIPP Model** – Context (environment of curriculum), Input (ingredients of curriculum), Process (ways and means of implementing), Product (accomplishment of goals)- process is continuous.

Regardless of the methods and materials evaluation will utilize, a suggested plan of action for the process of curriculum evaluation is introduced. These are the steps:

1. Focus on one particular component of the curriculum. Will it be subject area, the grade level, the course, or the degree program? Specify objectives of evaluation.
2. Collect or gather the information. Information is made up of data needed regarding the object of evaluation.
3. Organize the information. This step will require coding, organizing, storing and retrieving data for interpretation.
4. Analyze information. An appropriate way of analyzing will be utilized.



5. Report the information. The report of evaluation should be reported to specific audiences. It can be done formally in conferences with stakeholders, or informally through round table discussion and conversations.

6. Recycle the information for continuous feedback, modifications and adjustments to be made.

(Activity: "Is Philippine education really deteriorating?" This is a big question raised by many sectors of our society. Reflect and research (gather enough data/proof in your particular school/district/division) on this issue. Choose a particular level and a specific subject area as a point of reference).

## Curriculum development

### Curriculum Development – An Introduction

The word **Curriculum** derives from the Latin *currere* meaning 'to run'. This implies that one of the functions of a curriculum is to provide a template or design which enables learning to take place. Curricula usually define the learning that is expected to take place during a **course** or **programme of study** in terms of knowledge, skills and attitudes, they should specify the main teaching, learning and assessment methods and provide an indication of the learning resources required to support the effective delivery of the course. A curriculum is more than a syllabus. A **syllabus** describes the content of a programme and can be seen as one part of a curriculum. Most curricula are not developed from scratch and all operate within organizational and societal constraints.

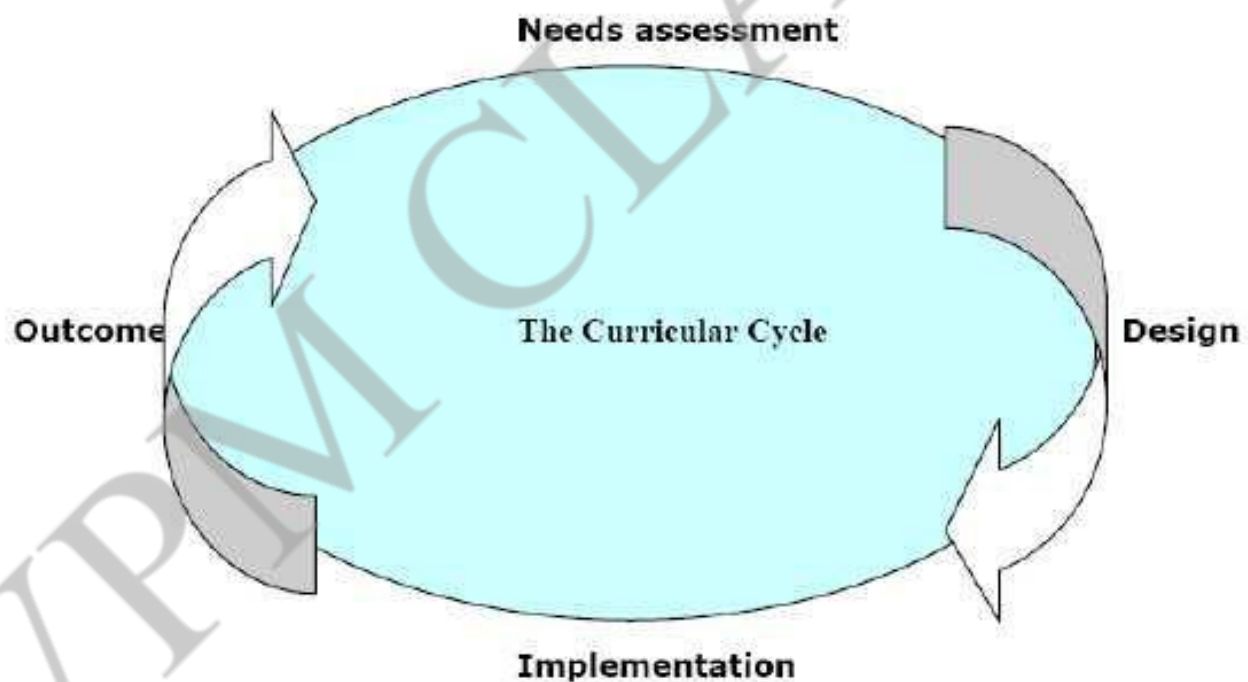
The curriculum that is written and published, for example as course documentation, is the official or formal curriculum. The aim of educational development is to ensure that the official curriculum is delivered as the functional curriculum and there is not a mismatch as development turns into implementation. The official curriculum can also be distinguished from the hidden, unofficial or counter curriculum. Paul Willis' work on the sociology of schooling for example describes how the informal pupil group comprising working class

'lads' has its own sub-culture and counter curriculum which involves 'mucking about', 'doing nothing' and 'having a staff' (Willis, 1977, ). The hidden curriculum describes those aspects

of the educational environment and student learning (such as values and expectations that students acquire as a result of going through an educational process) which are not formally or explicitly stated but which relate to the culture and ethos of an organization. This highlights that the process of learning is as important as its product and as teachers we need to be aware of both the formal and informal factors which impact on learning.

### **The Curricular Cycle**

Peyton and Peyton (1998) note that the curricular cycle “involves development through needs assessment, design and implementation phases. After this, outcomes are reviewed and evaluated against the original needs assessment. Needs change with societal expectations. The emphasis on different aspects varies with the participants’ and teachers’ perceived needs. The dynamic curriculum requires change and resource management”



*Fig From Peyton and Peyton, 1998*

In developing a new programme, or modifying an existing one, there are a number of stages which must be completed within the curricular cycle as listed below .

### **Stages of Curriculum Development :**

- Determine and agree the educational or professional context in which the programme is to be developed and delivered .
- Define the needs of the learners in line with the requirements of professional bodies .
- Determine the aims and broad learning outcomes of the programme .
- Identify ideas and constraints
- Agree the broad structure and framework of the programme, the main areas of teaching and learning, the sequence of the main topics and the key assessments .
- Allocate the detailed development of each topic or course area in terms of defining objectives and learning outcomes to individuals or teams.
- Course teams to develop coherent programmes which have defined learning outcomes, timetables, and content, appropriate teaching, learning and assessment methods and which utilize relevant and available learning resources .
- Implement and Refine the programme.
- Develop an appropriate and deliverable evaluation strategy.
- Review and revise the course in line with feedback - has it met the identified needs of the learners and other stakeholders?

### **Models of Curriculum Development**

#### **Ralph Tyler's Model/Rationale**

Ralph Tyler considered four considerations in curriculum development:

1. Purposes of the school
2. Educational experiences related to the purposes
3. Organization of the experiences
4. Evaluation of the experiences

#### **Hilda Taba's Linear Model**

Hilda Taba believed that teachers who teach or implement the curriculum should participate

in developing it. Her advocacy was commonly called the “grassroots approach” where teachers could have a major input. She presented seven major steps:

1. Diagnosis of learners needs and expectations of the larger society
2. For mulation of learning objectives
3. Selection of learning content
4. Organization of learning content
5. Selection of learning experiences
6. Organization of learning activities
7. Determination of what to evaluate and the means of doing it.

### **Objectives Model**

The Objectives Model takes as its major premise the idea that all learning should be defined in terms of what students should be able to do after studying the programme, in terms of learning outcomes or learning objectives.

See the section below on the elements of the curriculum for further details of learning outcomes and objectives in practice.

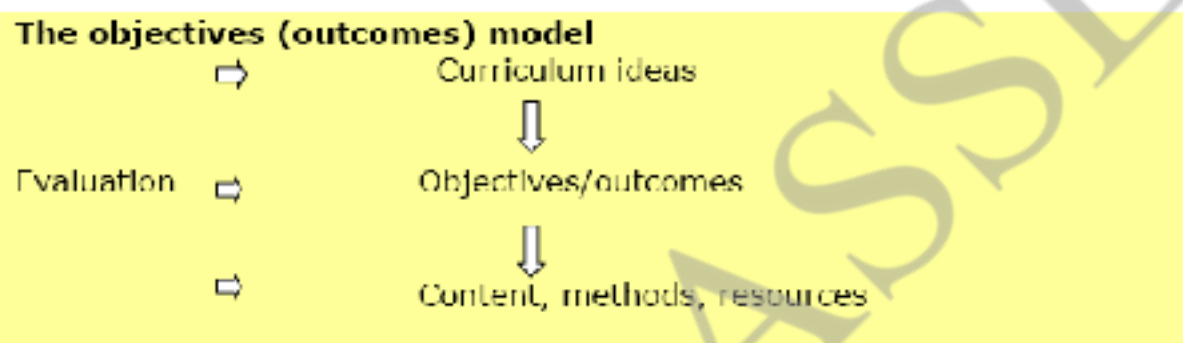
Curriculum design according to this model follows four steps:

- Reach agreement on broad aims and specific objectives for the course
- Construct the course to achieve these objectives
- Define the curriculum in practice by testing capacity to achieve objectives
- Communicate the curriculum to teachers

Care must be taken not to focus on the objectives to a trivial level or narrow specification as this limits the teacher and valuable learning experiences may be lost. Using an objectives model enables the construction of assessments w hich can be designed against the learning objectives. The objectives model is in step with current developments in the UK at national level which includes the use of **subject benchmarking and program me specifications**.

The Objectives Model is a systematic approach to course planning. It forms part of Outcomes Based Education (OBE) which states that “educators should think about the

desirable outcomes of their programmes and state them in clear and precise terms. They should then work backwards or 'design down' in the jargon of OBE, to determine the appropriate learning experiences which will lead to the stated outcomes. By using an outcome approach, educators are forced to give primacy to what learners will do and to organize their curricula accordingly" (Prideaux, 2000).



### Process Model

The Process Model assumes that content and learning activities have an intrinsic value and they are not just a means of achieving learning objectives and that translating behavioral objectives is trivialising. Stenhouse (1975) argued that there were four fundamental processes of education:

- Training (skills acquisition)
- Instruction (information acquisition)
- Initiation (socialization and familiarization with social norms and values)
- Induction (thinking and problem solving)

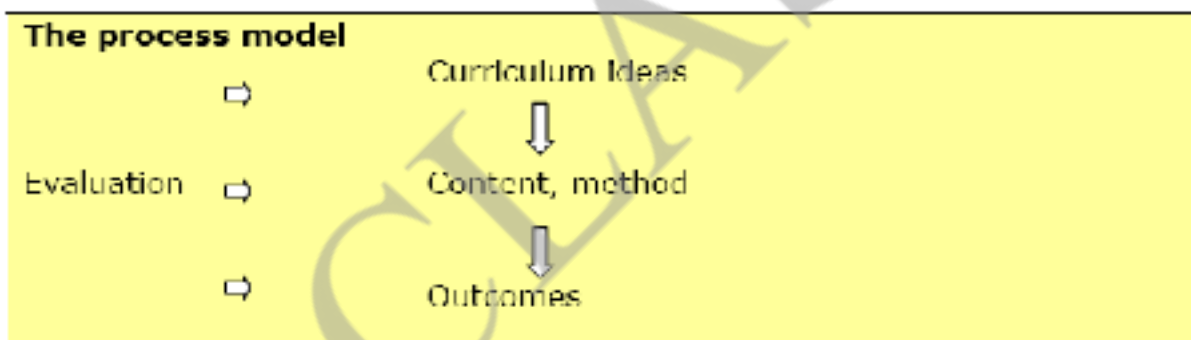
He claimed that behavioural objectives were only important in the first two processes and that in initiation and induction it would not be possible to use objectives. From this it was suggested that behavioral objectives were inappropriate for PBL, professional development or clinical problem solving.

Approaches to course design under the process model include the "intellectual approach, which examines the subject matter in terms of assumptions held in the discipline with regard to a particular body of information, knowledge and skills. It asks 'should the course be taught



at the micro or the macro-level of conceptual analysis?” (Fry, Ketteridge and Marshall, 1999). Creative or experiential approaches involve learning “through experience and generally through the dynamics of a group process. Outcomes are defined in the existential moment of learning” (Fry, Ketteridge and Marshall, 1999).

PBL approaches can fit under the outcomes or process approach although ‘pure’ PBL allows the learner to define their own learning goals and places emphasis on the process of understanding the problem. This is normally seen as objective based through inference rather than objective defined. PBL courses can eventually become systematic. The process model depends a lot on the quality of the teacher and it can be more difficult to set standardized, valid and reliable assessments because performance is not being measured against stated objectives but against ideas and course content.



The Best approach to curriculum design is to combine the best of both approaches according to student need, teacher experience and organizational structure and resources. For example, it is useful to design the overall shape of the course, the main aims and learning objectives, broad content areas and time allocation centrally but then devolve out the detailed planning and design to those teachers who will be delivering the course so that they have ownership of their programme. The way in which the GMC or the Nursing Boards define broad curricular themes and outcomes for medical or nursing schools are examples of a devolved approach. It is important to retain some central control of the course however so that the results of evaluation and feedback can be addressed and that changes in one part of the course can be made sensibly in the light of the impact of change on other course elements. At national level, agencies with statutory responsibility for medical and health

professionals' education and training are responsible for ensuring that courses delivered by separate organizations are designed and delivered in line with their recommendations, objectives or standards. At organizational level, there should be inbuilt quality monitoring mechanisms which aim to ensure that teaching and learning, wherever it occurs, is of a high quality.

### **Course Design and Planning – the broad context**

**The Educational and Professional Context** must be discussed and clearly defined. This can reflect a number of factors: current or prevailing educational or social ideology, culture, politics, economy, students, teachers and parents, commerce and industry, professional bodies, exam boards, funding bodies and history or influence of the past. In any discipline, there may be current trends in general education which need to be addressed and specific trends or issues in medical or healthcare education which relate to the healthcare system or context. Theories of **adult learning**, **student centred learning**, **active learning** and **self-directed learning** may all influence the overall programme philosophy as may other opportunities or student needs such as the need for flexible learning programmes (eg. **distance** or **open learning**). Programmes may be **modular** in structure or **credit based**, depending on the organization within which the curriculum is being designed.

### **Curriculum Approaches**

Curriculum Practitioners and Implementers may use one or more approaches in planning, implementing and evaluating the curriculum. Even textbook writers or instructional material producers have different curricular approaches.

The following are the five curriculum approaches:

**1. Behavioral Approach.** This is based on a blueprint, where goals and objectives are specified, contents and activities are also arranged to match with the learning objectives. The learning outcomes are evaluated in terms of goals and objectives set at the beginning. This approach started with the idea of Frederick Taylor which is aimed to achieve efficiency. In education, behavioral approach begins with educational plans that start with the setting of goals or objectives. These are the important ingredients in curriculum implementation as

evaluating the learning outcomes as a change of behavior. The change of behavior indicates the measure of the accomplishment..

**2. Managerial Approach.** In this approach, the principal is the curriculum leader and at the same time instructional leader who is supposed to be the general manager. The general manager sets the policies and priorities, establishes the direction of change and innovation, and planning and organizing curriculum and instruction. School administrators are less concerned about the content than about organization and implementation. They are less concerned about subject matter, methods and materials than improving the curriculum. Curriculum managers look at curriculum changes and innovations as they administer the resources and restructure the schools.

Some of the roles of the Curriculum Supervisors are the following:

- a. help develop the school's education goals
- b. plan curriculum with students, parents, teachers and other stakeholders
- c. design programs of study by grade levels
- d. plan or schedule classes or school calendar
- e. prepare curriculum guides or teacher guides by grade level or subject area
- f. help in the evaluation and selection of textbooks
- g. observe teachers
- h. assist teachers in the implementation of the curriculum
- i. encourage curriculum innovation and change
- j. develop standards for curriculum and instructional evaluation

**3. Systems Approach.** This was influenced by systems theory, where the parts of the total school district or school are examined in terms of how they relate to each other. The organizational chart of the school represents a systems approach. It shows the line-staff relationships of personnel and how decisions are made.

The following are of equal importance: a) administration b) counseling c) curriculum d) instruction e) evaluation.

**4. Humanistic Approach.** This approach is rooted in the progressive philosophy and child-

centered movement. It considers the formal or planned curriculum and the informal or hidden curriculum. It considers the whole child and believes that in curriculum the total development of the individual is the prime consideration. The learners at the center of the curriculum.

## DESIGN CURRICULUM

### A. Model of Design Curriculum

There are some models of design curriculum; they are design curriculum of science discipline, curriculum that orientated at society, curriculum that orientated at students, and design curriculum at technology.

#### 1. Design Curriculum of Science Discipline

According to Longstreet (1993), this design curriculum is design curriculum that centered at knowledge (the know ledge centered design) that designed based on structure of science discipline, because of that this design model also called curriculum model academic subject that it is pressure directed to developing of student intellectual. Whereas according to Mc Neil(1990), these design curriculums have function to develop cognitive processor ability developing of student think through training to use idea and doing process of scientific researches.

Found three parts of curriculum organization that orientated at science discipline, are yaitu subject centered curriculum, correlated curriculum, and integrated curriculum. Subject centered curriculum is design that centered at subject matter. At correlated curriculum, subject matter not prepared as separate, but this subject matter have proximity so to become broad field are structural approach, functional approach, and region approach, whereas at integrated curriculum no more show n the names of subject matter or broad field.

#### 2. Design Curriculum that Orientated at Society

The assumption that found on form this curriculum that is aim from student to serve of society. There are 3 the perspective of design curriculum that orientated at living society.

#### The Status Quo Perspective-

Curriculum is planning to give knowledge and skill for students as preparation to become adult that needed in living society.

### **The Reformist Perspective**

Curriculum developed to more increase of society quality. Reformist curriculum desires the function of society as total in education process. And must role to change arrangement of society social.

### **The Futurist Perspective**

This curriculum model more emphasizes the social importance than individual importance.

There are 3 criteria that must maintain in implementation process of this curriculum:

- a. Real
- b. Action
- c. Values

### **3. Curriculum Design that Orientated at Students**

The assumption that found on this design is the education managed to help student, the education can't save from student. To design the curriculum that orientated at student, Alice Crow (Crow & Crow, 1995), recommended:

1. Curriculum must suitable with child developing
2. Content of curriculum must contain skill and education.
3. Child placed as teach subject that try to self learn.
4. Tried what the students learn suitable with desire, talent and level of their developing.

### **4. Design of Technology Curriculum**

Model of design technology curriculum focus on program affectivity, method, and materials that regarded can get the aim. Perspective technology have used at some context, such as at training program in industry and military field. System design of instructional accent to achieve of aim that easy to measure, activity, and test, and also developing of teach materials.

### **The Aim of Technology Curriculum**



According to Mc Neil (1990), the aim of technology curriculum accented to get behavior that can measure. Because of that the general aim divided to become specific aim, is each of subject matters.

### **Characteristics of Lessons Material Organization in Technology Curriculum**

Focus at aim formulation

The matter arranged step by step

The matter started from simple to complex

### **CURRICULUM DEVELOPMENT APPROACHES &**

#### **MODELS A. Curriculum Development Approach:**

The Point of Departure or point of view in general about the Process of Curriculum Development. According Sukmadinata (2000:1) curriculum development could mean the preparation of an entirely new curriculum (curriculum construction), can also enhance the existing curriculum (curriculum improvement). Curriculum holding key positions in education, because it relates to determining the direction, content, and educational processes that ultimately determine the kinds of qualifications of graduates of an educational institution. That's why every institution of education, both formal and non formal education, must have a curriculum that is suitable and harmonious, appropriate to the position, function and role and purpose of these institutions. Thus, specifically in the resume, we describe more about the principles, approaches, and curriculum development model curriculum. Development can be done via two approaches:

#### **1. The Administrative Model;**

This Model is a model of curriculum development in the oldest and most widely used. Curriculum development ideas come from the administrators of education and using administrative procedures. Furthermore, administrators formed Task Team consisting of education experts, curriculum experts, discipline experts from universities, and senior teachers, which irresponsible for formulating the actual curriculum that is more operational concepts and outlines the basic policies established by the steering team, such as

formulating goals more operations, select the sequence of materials, selecting and evaluating learning strategies, and formulates guidelines for the implementation of curriculum for teachers. Since the advent of the above, then this model is also called model Top - Down. In doing so, the required monitoring, supervision and guidance. After walking for a while need to be evaluated.

## **2. The Grass Root Models;**

This Development model is the opposite of the first model. Curriculum development initiatives and efforts, not from above but from below , namely the teachers or the school. The first model of curriculum development, management systems used in education / curriculum is centralized, while grass roots model will evolve in a decentralized education system. Development or improvement can be related to a curriculum component, one or several fields of study or the entire field of study and all components of the curriculum. When conditions have allowed, in terms of the ability of teachers, facilities and materials costs literature, curriculum development model of grass root seems to be better. This was based on the consideration that the teacher is the planner, executor, and also falsifies the teaching in class. He is best knowing the needs of his class, therefore he was the most competent curriculum for the class.

## **B. Curriculum Development Models**

According to Good (1972) and Travers (1973) Models are abstractions or representations of real world events kompleksatau system, in the form of narrative, mathematical, graphical, and Imabang-other symbols. In Curriculum Development Models Used There are a few :

### **1. Model Tyler**

According to Tyler are four things that are considered fundamental to develop the curriculum, namely:

- A. Determining goals
- B. Determining the learning experience
- C. Organizing learning experiences
- D. Evaluation

## 2. Taba Mode

There are five steps to the best model of curriculum development in Taba, Namely:

- a. Produce experimental units
- b. Test the experimental unit to obtain data in order find the validity and feasibility of its use
- c. Revise and consolidate the units based on experimental data obtained in the trial.
- d. Develop overall curriculum framework
- e. Curriculum implementation and dissemination have been tested.

## 3. Model Oliva

According to Oliva, a model curriculum should be simple, comprehensive and systematic.

Curriculum development model is composed of 12 components, namely:

- a. Component 1: Philosophical formulation, target, mission and vision of the institution.
- b. Component 2: Analysis of the needs of the community where the school is located.
- c. Components 3 and 4: General purpose and special purpose curriculum
- d. Component 5: Organizing the design and implement curriculum
- e. Component 6 and 7: Describe the curriculum in the form of the formulation of general objectives and specific learning
- f. Component 8 : Define the learning strategy.
- g. Component 9 : Preliminary studies on possible strategies or assessment techniques to be used.
- h. Component 10 : Implement the learning strategy
- i. Components 11 and 12: Evaluation of learning and curriculum evaluation

## 4. Beauchamp Model

There are five steps in the process of curriculum development:

- a. Establish a curriculum change
- b. Assign people to be involved in the process of curriculum development
- c. Establish procedures that will be taken, namely to formulate common goals and specific objectives.
- d. Curriculum implementation
- e. Implement a curriculum that involves evaluation

## 5. Wheeler Model

Curriculum development consists of five stages, namely:

- a. Determine the general purpose and special purpose
- b. Determining a learning experience that may be in the can by the students
- c. Determining the content or learning materials in accordance with the learning experience.
- d. Organize or integrate experiential learning with the content or learning materials.
- e. To evaluate each phase of development and achievement of objectives.

## 6. Nicholls Model

Five steps development curriculum:

- a. Situation analysis
- b. Determining specific goals
- c. Determining the content of lessons and **menorganisasi**
- d. Determining and organizing methods
- e. Evaluation

## 7. Dynamic Model Skilbeck

Curriculum Development Steps:

- A. Analyzing the situation
- B. Formulating objectives
- C. Compiling program
- D. Interpretation and implementation
- e. Monitoring, feedback, assessment, and reconstruction

## Learning Resources Required to Deliver the Curriculum

- Teachers, Technical and Administrative staff - there should be sufficient staff to deliver and support the delivery and assessment of the course. Staff should be appropriately skilled (in pedagogical as well as technical areas) and qualified and should be aware not only of their own areas of the course but also of the course as a whole in order that they can contextualise the learners' learning experiences.

- Equipment including IT and AV equipment, models and simulators, laboratory and clinical equipment, white boards, flip charts.
- Finances - the course will require adequate funding to sustain its activities .
- Books, Journals and Multimedia Resources - lists of core textbooks for each part of the course and other resources including reference texts should be identified by teachers and purchased for use by learners. These should be supported by other resources such as journals (printed and online) and multimedia packages. The library will be the main support structure for these resources but additional resources may also be delivered through an Intranet or via departmental 'libraries'.
- Teaching rooms, office space, social and study space - there should be adequate provision to accommodate learners at all stages of the course as well as social and study space for students to spend time outside the classroom. There should also be sufficient space for teachers to prepare teaching and meet with students.
- Requirements for supervision and delivery of clinical teaching/placements - in courses for health professionals, these areas of the course usually comprise a large part of the curriculum. Clinical teaching is often delivered by health professionals working in practice rather than linked to the educational institution and it is important to ensure that such staff are supported and trained to deliver the course. Other requirements which need to be considered include travel and accommodation arrangements for learners and teachers.

### **Implementing the Curriculum**

There is no real clear dividing line between curriculum development and implementation. Once the curriculum has been developed and tested, and revised as necessary, the curriculum is ready for implementation. It is important that those involved with implementing the course (usually teachers and examiners) as well as students, interpret the curriculum correctly, because the written word is not always interpreted in the same way by different people. Ideally, the processes of development and implementation should be seamless and involve many of the same teachers and other staff as well as student representatives. This will help to ensure ownership of the new course and more effective implementation.

### **Pre Testing and Piloting**

Before starting to fully implement the curriculum it is preferable to try to **Pre-Test** or **Pilot** some or the whole of the curriculum that has been developed. The main objective of pre testing and piloting is to try out the draft curriculum in a small number of training situations and in the context in which the curriculum will be used.

This helps to highlight to the curriculum developers whether the curriculum is understandable and relevant to the users and whether it works in practice. Based on these findings, the curriculum can be modified as appropriate to meet the needs of the potential students. Sometimes there is the opportunity to **Field Test** the developed course to a larger number of users under real 'field' conditions.

Pre testing and piloting can help to create the most appropriate course as often the paper curriculum does not work as expected in practice because of unforeseen situations or responses by students or teachers. For example, if introducing new teaching or learning methods or new topics into a curricula, it is easy to underestimate the amount of preparation and sometimes additional training which might be required of teachers. Tools and mechanisms must be developed to ensure a systematic evaluation of the testing or piloting process.

### **Monitoring and Evaluating the Curriculum**

**Monitoring** can be defined as a continuous or periodic check and overseeing by those responsible for the course at every level. It should focus attention on processes and performance with the objective of drawing attention to particular features that may require corrective action. It includes putting activities in place to ensure that input deliveries, work plans, expected output and other actions are proceeding according to plans. Monitoring should enable curriculum planners to detect serious setbacks or bottlenecks of the implementation process that may cause the programme not to achieve expected learning outcomes.



VPM CLASSES