

## ASSIGNMENT No. 1

**Q.1 Write a comprehensive definition of curriculum. Critically analyze the primary level curriculum development process in Pakistan.**

**Curriculum** is the outline of concepts to be taught to students to help them meet the content standards. **Curriculum** is what is taught in a given course or subject. **Curriculum** refers to an interactive system of instruction and learning with specific goals, contents, strategies, measurement, and resources.

This article explains the four major foundations of curriculum and their importance in education. Examples are provided to stress the importance of curriculum in the academe.

Read on and reflect on some of the experiences you have had in school to match it with how philosophy, history, psychology and sociology influence those experiences of yours.

### **The Influence of Philosophy to Curriculum**

Educators, curriculum makers and teachers must have espoused a philosophy or philosophies that are deemed necessary for planning, implementing, and evaluating a school curriculum. The philosophy that they have embraced will help them define the purpose of the school, the important subjects to be taught, the kind of learning students must have and how they can acquire them, the instructional materials, methods and strategies to be used, and how students will be evaluated.

Likewise, philosophy offers solutions to problems by helping the administrators, curriculum planners, and teachers make sound decisions. A person's philosophy reflects his/her life experiences, social and economic background, common beliefs, and education.

When John Dewey proposed that "education is a way of life", his philosophy is realized when put into practice. Now, particularly in the Philippines, Dewey's philosophy served as anchor to the country's educational system.

### **History and Its Influence to Curriculum**

The history of one's country can affect its educational system and the kind of curriculum it has. If we are going to trace the formal beginning of curriculum, we get back in time to Franklin Bobbit's book entitled, "The Curriculum" which was published in 1918.

From the time of Bobbit to Tyler, many developments in the purposes, principles and contents of the curriculum took place. Please read the Six Famous Curriculum Theorists and their Contributions to Education for more information.

### **The Influence of Psychology to Curriculum**

Curriculum is influenced by psychology. Psychology provides information about the teaching and learning process. It also seeks answers as to how a curriculum be organized in order to achieve students' learning at the optimum level, and as to what amount of information they can absorb in learning the various contents of the curriculum.

The following are some psychological theories in learning that influenced curriculum development:

#### **1. Behaviorism**

Education in the 20th century was dominated by behaviorism. The mastery of the subject matter is given more emphasis. So, learning is organized in a step-by-step process. The use of drills and repetition are common.

For this reason, many educational psychologists viewed it mechanical and routine. Though many are skeptical about this theory, we can't deny the fact the influences it had in our educational system.

## **2. Cognitivism**

Cognitive theorists focus on how individuals process information, monitor and manage their thinking. The basic questions that cognitive psychologists zero in on are:

- How do learners process and store information?
- How do they retrieve data and generate conclusions?
- How much information can they absorb?

With their beliefs, they promote the development of problem-solving and thinking skills and popularize the use of reflective thinking, creative thinking, intuitive thinking, discovery learning, among others.

## **3. Humanism**

Humanism is taken from the theory of Gestalt, Abraham Maslow's theory and Carl Rogers' theory. This group of psychologists is concerned with the development of human potential.

In this theory, curriculum is after the process, not the product; focuses on personal needs, not on the subject matter; and clarifying psychological meanings and environmental situations. In short, curriculum views founded on humanism posits that learners are human beings who are affected by their biology, culture, and environment. They are neither machines nor animals.

A more advanced, more comprehensive curriculum that promotes human potential must be crafted along this line. Teachers don't only educate the minds, but the hearts as well.

## **4. Sociology and Curriculum**

There is a mutual and encompassing relationship between society and curriculum because the school exists within the societal context. Though schools are formal institutions that educate the people, there are other units of society that educate or influence the way people think, such as families and friends as well as communities.

Since the society is dynamic, there are many developments which are difficult to cope with and to adjust to. But the schools are made to address and understand the changes not only in one's country but in the world as well.

Therefore, schools must be relevant by making its curriculum more innovative and interdisciplinary. A curriculum that can address the diversities of global learners, the explosion of knowledge through the internet, and the educational reforms and policies recommended or mandated by the United Nations.

However, it is also imperative that a country must have maintained a curriculum that reflects and preserves its culture and aspirations for national identity. No matter how far people go, it is the country's responsibility to ensure that the school serves its purpose of educating the citizenry.

**Q.2 Identify the recommendations regarding curriculum reforms contained in the all educational policies and highlight the main differences.**

1. DIFFERENT EDUCATION POLICIES OF PAKISTAN

2. First Educational Conference (1947) θ The first National Education Conference was held at Karachi from November 27th to December 1st, 1947. θ First Education Conference was convened in 1947 in the supervision of Quaid-e-Azam.

3. θ He provided the basic guide lines for future education development. θ It was also emphasis to realize the people the sense of honor, integrity and selfless services to the nation.

4. Dimensions Of Education Spiritual Social Vocational θ Education conference 1947 was presided by the Education Minister of the country and Chairman of the Conference, Fazal ur Rehman. θ Fazal-ur-Rehman, the Education Minister of the country proposed three dimensions of education

5. University Education Committee Adult Education Committee Technical Education Committee θ The Conference formed a number of committees, θ The reports of committees were shared in November, 1947. Primary and Secondary Education Committee Cultural Relations Committee Women's Education Committee Scientific Research Committee

6. Primary and Secondary Education Committee θ The Primary and Secondary Education Committee "considered it essential that a national system of education should be based on the strong foundations of free and compulsory primary education." θ It proposed separate pre-primary and primary education stages for children of ages 3 to 6 and 6 to 11.

7. Adult Education Committee θ The Committee on Adult Education pointed out that illiteracy was high at 85 percent and, at the then rate of increase of literacy, 140 years would be required to get rid of the problem. θ It stated, "The primary aim of the campaign must be not merely to make adults literate but to keep them literate".

8. θ The report recommended the following stages for the execution of a programme of adult education. θ The first five years were to be devoted to θ In the sixth year, about 500,000 persons were to be made literate with an annual increase of 300,000 thereafter. Planning Recruitment Of Teachers Training

9. θ The major recommendations of the conference were Education should be teamed with Islamic values Free and compulsory education in Pakistan Emphasis on science and technical education

10. Implementation θ This policy could not be implemented properly due to increased number of immigrants and other administrative problems of new born country. θ More or less British colonial system was continued.

11. National Commission On Education(1959) θ The Commission was addressed by the President of Pakistan, General Mohammad Ayub Khan, on January 5, 1959. θ In this commission compulsory education of 10 years was made. θReligious education be compulsory . θEqual expansion for boys and girls education.
12. θ Recommendations of the commission were 1. Character building. 2. Compulsory primary education. 3. Focus on science and technical education. 4. National language as medium of instruction. 5. Three-year degree program. 6. Elimination of illiteracy.
13. Stage 1: Compulsory at Middles Level Stage 2: Optional at Secondary Level Stage 3: Research at University Level 7. Establishment of university grants commission. 8. Examination system should be combination of internal (25%) and external (75%) evaluation. 9. Religious education should be introduced in three stage i.e.
14. Implementation θThe National Education Commission recommendations were useful but due to the conditions of country and the situation of resources they were not applied well.
15. New Education Policy (1970) θThe revised proposals were reviewed by the committee of the Cabinet in the light of implications of the announcement by the President in his address to the nation on November 28, 1969. θThe new Education Policy was finally adopted by the Cabinet on March 26, 1970.
16. θ The new Education Policy has following salient features: Formation of national education units Emphasis on ideological orientation Emphasis on science and technology education Decentralization of educational administration Eradication of illiteracy
17. Implementation θ This policy was not implemented due to the war with India, separation of East Pakistan, and the collapse of the military government.
18. Education Policy (1972) θ Zulifqar Bhutto announced a National Education Policy on 29 March 1972. θSalient features of this policy are Promotion of ideology of Pakistan Personality development Equality in education Universal education
19. Curriculum based on socioeconomic needs of the society Integrated technical and science education Active participation of teacher, students and parents in educational affairs Nationalization of educational institutions
20. Announced free & universal education up to Class X for both girls & boys. first phase October 1972, all public & private schools to provide free education up to class VIII Second phase starting 1974, free education extended up to Class X.
21. Implementation θThis policy was a good approach towards betterment, but has many drawbacks due to which it cannot be achieved thoroughly e.g. universal basic education, shift towards agro- technical studies etc.
22. Education conference 1947 was held in ? }Ans: Karachi Under National Commission 1959, compulsory education was recommended upto class ? }Ans: 10 All private institutions were nationalized on which educational policy? }Ans: Education Policy 1972 Activity # 1

23. National Education Policy (1979) θ Salient features of National Education Policy were announced, by the Minister for Education in October 1978. θThe Draft work plan of the policy was presented to the Cabinet in December, 1978. θ The Policy was announced in February 1979.

24. θIn 1979 National Educational Conference was held for reviewing the education system and developed following aims: Fostering loyalty to Islam Creation of concept of muslim Ummah Promotion of science and technical education Equal opportunities

25. 1. Curriculum revision. 2. Merging madarsa and traditional education 3. Urdu as a medium of education θThe following strategies were suggested to achieve the goals:

26. 4. Effective participation of community in literacy programs. 5. Linked scientific and technical education. 6. Separate set up for male and female.

27. Implementation θThis policy was not implemented properly and failed due to lack of planning and financial resources. ?

28. National Education Policy (1992) θA National Conference was held at Islamabad in April, 1991 under the chairmanship of the Federal Education Minister. θ In this Conference scholars, writers, newspaper editors, scientists, teachers and Lawyers proposals for preparing the Education Policy. θThe policy framework was discussed by the Education Minister with the Education Committees of the Senate and the National Assembly. θThe Policy was announced in December 1992.

29. θ The major aspect, aims and goals of National Education Policy are 1 Promotion of Islamic values through education 2 Improvement in women education 3 Range of general and technical education at secondary level

30. Demand oriented curriculum 4 Expanded span of graduation and post graduation 5 Use of AV aids promoting private sector to participate in enhancement of literacy 6

31. Implementation θThis policy could not be implemented due to change in political scenario of country. No implemented

32. National Education Policy (1998- 2010) θThe Prime Minister advised the Ministry of Education to design a new Education Policy in January 1998. θThe first revised draft was submitted to the Cabinet on 18 February, 1998. θThe Policy was announced in March 1998.

33. θMajor objectives of National Education Policy were 1. To make the Quaranic principles and Islamic practices an integral part of education system. 2. To achieve universal primary education. 3. To meet the basic educational needs of every individual. 4. To expand the basic education.

34. 6. Laid emphasis on diversification. 7. To make curriculum development a continuous process. 8. To introduce in-service training programs for betterment of education. 5. To ensure equal opportunity of higher education.

35. • Diversification of curriculum. • Expansion and emphasis on technical and science education. • Upgrading the quality of Deeni Madaras. • Teacher training programs both pre and in service. • Introduction of idea of

multiple text book. • Development of National Testing Services. • Introduction of comprehensive monitoring system. θ Suggestions for achievement of above goals were:

36. Education Sector Reforms (2005- 2010) θ This originated from the policy of 1998-2010 and focuses on development of human resources. θ The existing Education Policy was announced in 2009 θ The major thrust areas of ESR are as follows: 1. Free and universal primary education. 2. Free text books. 3. Equal access to opportunities of learning. 4. Improving all aspects in quality education.

37. 5. Introduction of new educational curricula. 6. Development of training learning resources and materials. 7. Offering incentives for private sector. 8. Introduction of computer course at all levels. 9. Strengthening of research in higher education. 10. Grant for affiliation of madarasas.

38. 11. The allocation for education would be 7% of the national GDP by 2015. 12. The Literacy rate will be enhanced to 86% by 2015. 13. A Bachelor degree, with a B.Ed, shall be the minimum requirement for teaching at the elementary level. 14. A Masters degree for the secondary and higher secondary with a B.Ed, shall be ensured by 2018

39. Country World Ranking Educational Budget Cuba #1 18.7% Malaysia #10 8.1% Iran #58 4.9% India #81 4.1% Bangladesh #119 2.4% Pakistan #126 1.8% Indonesia #130 1.2%

**Q.3 Select any subject from the curriculum of ADE program of AIOU and identify the different foundations of the curriculum from it. Also, highlight the focused foundation that is reflected at this level of the curriculum with examples.**

**Curriculum** refers to the means and materials with which students will interact for the purpose of achieving identified educational outcomes. Arising in medieval Europe was the trivium, an educational curriculum based upon the study of grammar, rhetoric, and logic. The later quadrivium (referring to four subjects rather than three as represented by the trivium) emphasized the study of arithmetic, geometry, music, and astronomy. These seven liberal arts should sound a lot like what you experienced during your formal education.

The emphasis on single subjects persists even today. Very likely you moved from classroom to classroom, particularly throughout your secondary education, studying a different subject with each teacher. Yet there was more to your education. Perhaps you participated in athletics, or the band, or clubs, or student government, or made the choice not to participate in any extracurricular activities. All of these (including the option not to participate) are part of what we might call the contemporary curriculum. But there is more.

Some educators would say that the curriculum consists of all the planned experiences that the school offers as part of its educational responsibility. Then there are those who contend that the curriculum includes not only the planned, but also the unplanned experiences as well. For example, incidents of violence that have occurred at a number of schools across the nation are hardly a planned component of the curriculum. However, the manner in

which violence is addressed before, during, and after the actual event sends a very definite message about how people in our culture interact and how the laws of our nation are applied.

Another perspective suggests that curriculum involves organized rather than planned experiences because any event must flow of its own accord, the outcome not being certain beforehand. For instance, competitions, whether academic or athletic, can be organized, but the outcomes will depend on a myriad of factors that cannot be planned.

Which brings us to the notion of emphasizing outcomes versus experiences. This shift to the notion of outcomes is very much in keeping with the current movement toward **accountability** in the public schools, that is, the perspective that there are indeed specific things that the schools are supposed to accomplish with children. District personnel, school administrators, and you as one of many teachers are to be held accountable by the public/taxpayers for ensuring that those objectives are met. Curriculum, it turns out, is indeed much more than the idea of specific subjects as represented by the trivium or the quadrivium. And, as we will see in the next section, it can be characterized not only by what it does include but also by what it intentionally excludes.

A key concept to keep in mind is that the curriculum is only that part of the plan that directly affects students. Anything in the plan that does not reach the students constitutes an educational wish, but not a curriculum. Half a century ago Bruner (1960) wrote, "Many curricula are originally planned with a guiding idea . . . But as curricula are actually executed, as they grow and change, they often lose their original form and suffer a relapse into a certain shapelessness" (p. 54). Curriculum—however grand the plans may be—can only be that portion of the plan that actually reaches the student. Planning that keeps that point in focus can be expected to result in a more focused curriculum.

### **The Purpose of Curriculum**

We have suggested that curriculum refers to the means and materials with which the student interacts. To determine what will constitute those means and materials, we must decide what we want the curriculum to yield. What will constitute the "educated" individual in our society? In other words, what purpose does the curriculum serve?

The things that teachers teach represent what the larger society wants children to learn. However, beyond teaching reading and writing, what are the necessary things that they should be taught? Is it really necessary to teach science? Does teaching mathematics really lead to logical thinking, or does it just provide students with some basic computational skills that may or may not come in handy at some future time? You may feel that answering such questions is not something a teacher has to be able to do, but rest assured that at some point a parent will ask you questions like these. As a teacher, you will be the representative of "the curriculum" to

whom parents and students turn for answers. The purpose of the curriculum is to prepare the student to thrive within the society as it is—and that includes the capacity for positive change and growth.

### **You Actually Have Four Curriculums**

There are essentially four curriculums at work in most educational settings: the explicit, implicit, null, and extra-, or cocurriculum. You are probably familiar with the notions of explicit curriculum and extracurricular activities. The real intrigue of curriculum debate and design comes into play with the implicit and null curriculums.

#### **There are four curriculums:**

**Explicit curriculum:** subjects that will be taught, the identified "mission" of the school, and the knowledge and skills that the school expects successful students to acquire

**Implicit curriculum:** lessons that arise from the culture of the school and the behaviors, attitudes, and expectations that characterize that culture

**Null curriculum:** topics or perspectives that are specifically excluded from the curriculum

**Extra curriculum:** school-sponsored programs that are intended to supplement the academic aspect of the school experience

#### **The Explicit Curriculum**

Explicit means "obvious" or "apparent," and that's just what the explicit curriculum is all about: the subjects that will be taught, the identified "mission" of the school, and the knowledge and skills that the school expects successful students to acquire. If you speak with an administrator at your school or where you do your observations or practicum work, ask about the curriculum; it is this publicly announced (and publicly sanctioned) explanation of the message of school that will be explained to you. The explicit curriculum can be discussed in terms of time on task, contact hours, or Carnegie units (high school credit courses). It can be qualified in terms of specific observable, measurable learning objectives.

#### **The Implicit Curriculum**

Sometimes referred to as the hidden curriculum, the implicit curriculum refers to the lessons that arise from the culture of the school and the behaviors, attitudes, and expectations that characterize that culture. While good citizenship may be part of the explicit curriculum, a particular ethos that promotes, for example, multiethnic acceptance and cooperation may also characterize a particular school. This is not to say that parents, teachers, and administrators sat around a table and said, "Hey, let's promote acceptance of diverse ethnic values in the context of the American experience." That would be nice, of course, but then it tends to fall into the category of the explicit curriculum. By virtue of a high multiethnic enrollment, a particular school may have a culture of multiethnic cooperation. Another school, isolated in that its enrollment is primarily that of one ethnic group,



would develop a different sort of culture. Individual schools within a district, or even classrooms within a school that share a common explicit curriculum, can differ greatly with regard to the implicit curriculum. This is not an altogether bad situation, but to a great degree the implicit curriculum is subjected to less scrutiny than is the explicit curriculum.

#### **Q.4 Evaluate the following stages in the process of curriculum development with examples.**

##### **a. Taxonomies of Educational Objectives**

Educational objectives describe the goals toward which the education process is directed—the learning that is to result from instruction. When drawn up by an education authority or professional organization, objectives are usually called standards. Taxonomies are classification systems based on an organizational scheme. In this instance, a set of carefully defined terms, organized from simple to complex and from concrete to abstract, provide a framework of categories into which one may classify educational goals. Such schemes can:

- Provide a common language about educational goals that can bridge subject matter and grade levels
- Serve as a touchstone for specifying the meaning of broad educational goals for the classroom
- Help to determine the congruence of goals, classroom activities and assessments
- Provide a panorama of the range of possible educational goals against which the limited breadth and depth of any particular educational curriculum may be contrasted.

##### **b. Selection of Content and Curriculum Foundation**

Educators, curriculum makers, and teachers must have espoused a philosophy or philosophies deemed necessary for planning, implementing, and evaluating a school curriculum. The philosophy they have embraced will help them achieve the following:

- define the school's purpose,
- identify the essential subjects to be taught,
- design the kind of learning students must have,
- develop approaches or methodologies on how students can acquire the necessary knowledge, skills, and attitude,
- produce the instructional materials,
- identify the methods and strategies to be used, and
- determine how teachers will evaluate students.

Likewise, philosophy offers solutions to problems by helping the administrators, curriculum planners, and teachers make sound decisions. A person's philosophy reflects his/her life experiences, social and economic background, shared beliefs, and education. When John Dewey proposed that "education is a way of life," his philosophy is realized when put into practice. Now, particularly in the Philippines, Dewey's philosophy served as an anchor to the country's educational system.

Curriculum and instruction are the meat of the educational process. Real change in education comes with changes in the content that teachers teach and students learn, and in the instructional methods that teachers use. Both curriculum and instruction in turn are shaped by expectations about the kinds of educational outcomes that students should manifest by the time they graduate from high school.

Standards-based reform has been built around a specific set of assumptions about curriculum and instruction, embodied in the content and performance standards that are central to the reforms. Special education, for its part, has been built around a set of assumptions about valued post-school outcomes, curricula, and instruction that reflect the diversity of students with disabilities and their educational needs. Whether students with disabilities will participate successfully in standards-based reform will depend largely on the degree of alignment between these two sets of assumptions.

### **c. Selection of Methods and Level of Education**

Teaching at university has diverse goals, so you should make use of the many different methods available. Most of us are familiar with lectures, tutorials and practicals but relatively few of us fully exploit the many possibilities which lie within these broad categories. Teaching involves communication, that is, the exchange of information and understanding. Too often in the recent past, however, this has been one way with little dialogue or active participation by students.

Unfortunately, no simple and universally acceptable model for classifying teaching methods is to be found and those available often pose problems with the terms used. Figure 5.3 offers a model to identify levels of generality or specificity of instructional methods: it should also clarify terminology. Let us discuss it briefly. At the Strategy Level, we refer to the overall way in which the process of instruction is organized and executed. This can be either 'expository' or 'discovery' and has several sub-divisions. At the Method Level we refer to the instructional process itself, which has a more or less defined set of procedures and tends to promote a particular strategy. You will note familiar examples of methods such as lecture, tutorial and seminar. At an even more specific level, the Technique Level, we refer to a detailed activity within an instructional process such as a buzz group or quiz, and which is usually of short duration.

FOCUS	TEACHER-CENTRED	LEARNER-CENTRED
Approach	Expository: 'talk and chalk'	Discovery: 'dialogue and inquiry'
Purpose	Transfer of information	Development of individual potential
Rationale	Education as technology	Education as liberating process
Strategy	Surface learning	Deep learning
Teaching link	Direct	Indirect
Teacher role	Authoritative: 'all knowing expert'	Facilitative: 'developer'
Teacher activity	Telling, checking, correcting	Guiding on route, resources interpretations
Student role	Rote learning	Self-direction for meaning
Student activity	Listening, note-taking	Exploring, reflecting, questioning
Methods	Lecture, seminars, demonstrations	Discussions, simulations, problem-solving

Few will disagree with the importance of using the right method in teaching. Because there is no simple and instant way of selecting a teaching method, we must consider several factors. In this section we shall first discuss the purpose or objective of learning and the level required, followed by group size, local constraints such as time available and facilities, the degree of autonomy of the learners, and finally, any preferences or dislikes of the lecturer. In dealing with purpose, we need an appreciation of formulating objectives in order to determine the level of learning required.

The specification of learning objectives is important in selecting an appropriate teaching method, for these serve as targets for our teaching. There is general agreement on the need for stating objectives but much less on the degree of specificity which is appropriate. -Formulation of objectives is also discussed in the previous chapter. Several models are available but the taxonomy developed by Bloom et al. (1956) is perhaps the best known. At universities we are mainly concerned with knowledge or the cognitive domain, but of more importance is the

hierarchy of levels of knowledge in this domain. Figure 5.7 identifies the various levels and explains requirements according to Bloom's model as interpreted by a more recent authority. It needs to be noted that many of us often tend to select a higher level of objective than is really required.

#### d. Curriculum Planning

- The curriculum is what happens, what actually takes place among teachers and students, students and students so that learning occurs. Even though curriculum cannot be entirely preplanned and prescribed, to a great extent a curriculum that satisfies the need of the students as well as the society can be developed. The construction of nursing curriculum is the responsibility of the faculty of the nursing institute, but the minimum requirements which are prescribed by statutory bodies like nursing council or university in the name of syllabus has to be followed by all institutes.
- A process in which participants at many levels make decisions about the purposes of learning, teaching-learning situation.
- It is process of gathering, sorting, selecting, balancing and synthesizing relevant information from many sources in order to design those experiences that will assist learners in attaining the goals of curriculum.
- It is the orderly study and improvement of schooling in light of stated objectives.

**Q.5 Write a critical note on humanistic model and process model of the curriculum development. What are the limitation of these models?**

#### Key Curriculum Components

Curriculum models have five areas they define, each looking at education from a different slant. The **focus** concept looks at a subject or a student and centers instruction on them. The **approach** component is a traditional or modern method and looks at the type of instruction that will be used. In the **content** component, a slant towards a topic-based or content-based is used, asking how units or strands will be written. The **process** structure looks at assessment: formative or accumulative. Finally, **structure** components focus on the system of review, determining how the curriculum will come up for revision.

#### Product and Process Models

Curriculum models can be broken down into two very broad models, the **product model** and the **process model**. Luckily, these two models are just as they sound.

- **The Product Model** - You may see this in portions of your curriculum. This model is focused on results, like grades or reaching an objective. The majority of the weight is focused more on the finished product than what is happening in the learning process.
- **The Process Model** - Conversely, this process model focuses on how things happen in the learning and is more open-ended. Curriculum focusing on the process model emphasizes how students are learning, what their thinking is, and how it will impact future learning.

## Curriculum Model Frameworks

To dive in a bit further before we look at specific models, let's talk about how some curriculum models are framed. Five broad categories can be used to define the focus of curriculum models:

1. Subject- or discipline-centered - In this framework, the curriculum is organized around subjects, like math or science.
2. Integrated - Just like it sounds, this framework pulls many subjects together. We see this model used in problem-based learning and experiential learning.
3. Spiral - In this framework, the content is presented several times across the span of the school year. Seen mostly in math, using this design allows students to be introduced and then revisit material often.
4. Inquiry- or problem-based - Not to be confused with integrated models, this curriculum focuses on a central problem or question. In this frame, all curriculum is problem-based, while in integrated it may or may not be.
5. Experiential - Using this framework allows students to participate in real-life ways with their work such as, experimenting with hypothesis, working through problems, and finding solutions.

You may recognize some of the above frames in your own lesson plans. Now, let's look at three models we also see in our current curriculum.

## Popular Curriculum Models

There are countless models of curriculum, many of them blends of several styles. There are, however, two main models looked at as the basis for all curriculum. And to make things easy for us, each is named after its creator.

### The Tyler Model

The **Tyler model** was created by Ralph Tyler in 1949. He guided his model with four questions:

1. What educational purposes should the education strive for?
2. What educational experiences can be provided to attain these purposes?
3. How can we organize these educational experiences?
4. How will we know if these purposes are being attained?

**Constructivist Approaches.** Constructivist theory is based on the principle that students learn by building knowledge on prior knowledge and experiences as well as getting actively engaged in the learning process as opposed to obtaining information passively from lecturers and memorization. Driver and Bell (1985) summarised the main assumptions of this approach as follows:

- Current beliefs of students which may be right or wrong.
- Personal ability to construct individual learning unique to each student despite same learning experience.
- Understanding a meaning as an active and continuous process.
- Learning may entail conceptual changes.
- Learning is an active process that is dependent on student's taking ownership of learning.

- Students may lack confidence when they construct a new meaning even though such a meaning is provisionally accepted or rejected by them.

The theory acknowledges that knowledge is dependent of the knower and only the knowledge created for oneself from the information which is obtained from the environment while learners provide answers from their own perspectives. It is based on guided discovery, discussions on thoughts, ideas and activities to enable students learn effectively. It is learners-centred approach where students start with existing knowledge while teachers guide learners to discover knowledge thereby facilitating the learning process as opposed to giving direct instructions to learners. This approach promotes diversity and different cultures than other theories due to being student-centred which entails involving them in learning process as active participants using all their senses. It facilitates learning in students who learn better by kinaesthetic approach and enables them apply the information acquired to life situations. The constructivist curriculum considers learners' previous knowledge, propels teachers to devote more time to topics of interest to learners and enables teachers to emphasise relevant and crucial information. It usually involves group work thereby providing opportunities for students to gain social skills, share ideas, knowledge and information together. It is particularly effective for enhancing learning for Special Education Needs students with sensory processing disorder like autistic spectrum through the teacher's guidance, encouragement by challenging ideas and enabling them participate actively in learning. However, the theory has some short comings such as lack of structure which hinders the progress of students who need highly structured environment to succeed. Some students may lag behind others as it supports a more personalized study based on the prior knowledge of learners and formative assessment rather than standardised curriculum and summative assessment which enables the teacher to know the areas and levels of support required to enable them progress. This prevents grade-centred goals and rewards and measurement of student state-wide progress to be compared. It is difficult for teachers to customise the curriculum to every student due to differences in their prior knowledge. The relevant training involved in constructive teaching is wide and usually entails high cost long-term professional development. The theory may also lead to confusion and frustration in learners as the success depends on students' ability to establish relationships and abstracts between prior knowledge and their current knowledge. Constructivism principles when incorporated into learning may be beneficial but most students require more structure and evaluation to progress. **Learner based models (Dewey)**. Dewey's theory (2008/1902) is based on experiential education and the role of the schools in education. He believes that education is life itself and a process of living as opposed to being a preparation for future living. His experiential education centres on the concept of instrumentalism in education on 'learning by doing or hands-on learning' which falls under the educational philosophy of pragmatism (experience of reality) and implies learning by theory and practice. Dewey creates instrumentalism which is a theory of knowledge which views ideas as existing primarily to solve encountered environmental problems. He considers civil society and schools as two basic elements and main topics that should be addressed and modified to promote experimental intelligence and plurality for the improvement of life and environment of people. He believes that

the interaction of students with their environment enhances adaptation and learning which ensures students and teachers learn together thereby promoting inclusivity. His approach is child-centred with focus of learning on the child's needs and interests which involves supporting him to explore the environment. Dewey acknowledges the facilitating role of the teacher in the process of allowing children to use their interests in modelling the educational environment as this enables teachers to apply their professional judgement in streamlining the process and curbing the excesses of children. He notes that an important mastery and control of a well-trained teacher ensures the child's education is achieved. He acknowledges the role of schools in education as where to learn how to live in addition to where to acquire content knowledge thereby enhancing the aim of education which is the achievement of the full potentials of all learners and maximum utilisation of skills. He itemises his teaching methods in relation to the ages at which the tasks carried out by children progressively becomes complex from simple ones. He states children go to school to make things: cook; sew, work wood, and to make tools through clear acts of constructions whose context and consequences articulate studies such as reading, writing and calculus. He expects students to be active learning perceivers and critical thinkers as opposed to passive learners. His pedagogical key provides children with experiences of first hand on conflictive situations which are mainly time based on personal experiences. He notes that conducive conditions are vital to active participation of children in the personal analysis of their problems as well as participation in the methods for solution at the expense of multiple tries and mistakes otherwise the mind is not completely free. The theory is of limited application as it cannot be applied in all disciplines but only provides understanding and explanation in the inter-relationship in philosophy, pedagogy and psychology. **Procedural v Declarative (Anderson, 1976).** The two types of knowledge which originates from Newell's symbolic framework are declarative and procedural (Anderson, 1976). He states that declarative knowledge is 'Knowing that 'while procedural knowledge is 'knowing how'. Procedural knowledge is based on naturally occurring reflexes which involve the application of declarative knowledge to a task to facilitate mastery in the long-term memory. It eventually results in problem solving skills through active participation using different senses thereby promoting inclusivity. Declarative knowledge is actual information (static) which is acquired by passive memorization such as ideas, symbols, numbering, semantics and formulas and it is based on theories, models and principles that are of practical application to procedural knowledge.