Course: Curriculum Development (8603)
Semester: Spring, 2021
ASSIGNMENT No. 1

Q. 1 Discuss various steps being followed by the planner when planning a curriculum. What are the factors that may affect the curriculum planning?

The curriculum development process systematically organizes what will be taught, who will be taught, and how it will be taught. Each component affects and interacts with other components. For example, what will be taught is affected by who is being taught (e.g., their stage of development in age, maturity, and education). Methods of how content is taught are affected by who is being taught, their characteristics, and the setting. In considering the above three essential components, the following are widely held to be essential considerations in experiential education in non-formal settings:

Essential Considerations for Curriculum Development:

1. issue/problem/need is identified (issue ® what),
2. characteristics and needs of learners (target audience ® who),
3. changes intended for learners (intended outcomes/objectives ® what the learners will be able to do),
4. the important and relevant content ®(what),
5. methods to accomplish intended outcomes ®(how),
6. Evaluation strategies for methods, content, and intended outcomes ®(What works?).

The curriculum development model on the next page (Figure 2) shows how these components relate to each other and to the curriculum development process. It begins when an issue, concern, or problem needs to be addressed. If education or training a segment of the population will help solve the problem, then curriculum to support an educational effort becomes a priority with human and financial resources allocated.

The next step is to form a curriculum develop-ment team. The team makes systematic decisions about the target audience (learner characteristics), intended out-comes (objectives), content, methods, and evaluation strategies. With input from the curriculum development team, draft curriculum products are developed, tested, evaluated, and redesigned -if necessary. When the final product is produced, volunteer training is conducted. The model shows a circular process where volunteer training provides feedback for new materials or revisions to the existing curriculum.
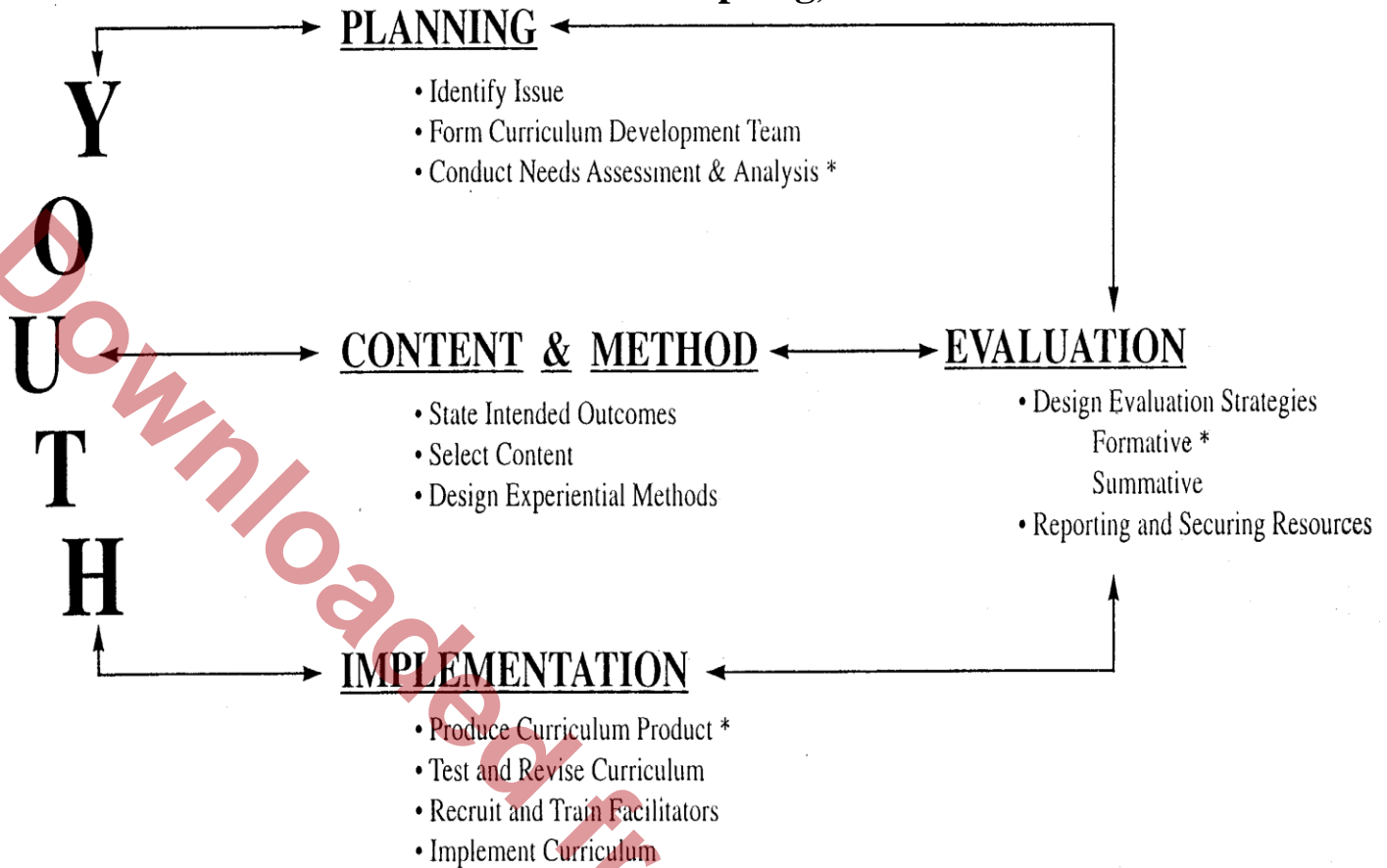
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PLANNING

- Identify Issue
- Form Curriculum Development Team
- Conduct Needs Assessment & Analysis *

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CONTENT & METHOD

- State Intended Outcomes
- Select Content
- Design Experiential Methods

EVALUATION

- Design Evaluation Strategies
  Formative *
  Summative
- Reporting and Securing Resources

IMPLEMENTATION

- Produce Curriculum Product *
- Test and Revise Curriculum
- Recruit and Train Facilitators
- Implement Curriculum

Figure 2

Phases and steps in curriculum development (See Figure 2 on the previous page) further illustrates how the 12 essential steps progress from one to the next. It also shows the interaction and relationships of the four essential phases of the curriculum development process: (I) Planning

(II) Content and Methods

(III) Implementation

(IV) Evaluation and Reporting.

It is important to acknowledge that things do not always work exactly as depicted in a model! Each phase has several steps or tasks to complete in logical sequence. These steps are not always separate and distinct, but may overlap and occur concurrently. For example, the curriculum development team is involved in all of the steps. Evaluations should occur in most of the steps to assess progress. The team learns what works and what does not and determines the impact of the curriculum on learners after it is implemented. Each step logically follows the previous. It would make no sense to design learning activities before learner outcomes and content are described and identified. Similarly, content cannot be determined before learner outcomes are described.

In the experience of the author, and confirmed by other curriculum specialists, the following curriculum development steps are frequently omitted or slighted. These steps are essential to successful curriculum development and need to be emphasized.

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 curriculum. 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. 2 What is the importance of the involvement of teacher and community in curriculum development? Enlist the guiding principles, that the members of curriculum formation committee follow in content selection and its organization.

There have always been excellent teachers of social studies in the elementary schools, and today is no exception. Many teachers are working hard to provide elementary students with high quality, meaningful social studies instruction. At the same time, they would like to improve their teaching practices to ensure that students learn important social studies content, concepts, and skills.

Assuming that elementary teachers who join a professional organization focused on the social studies are among those who regularly include social studies in their instruction, we sent questionnaires to all NCSS members who identified themselves as elementary teachers in spring 1997. Two general questions guided our development of the survey questions:

- What current trends in elementary social studies education are being implemented by elementary teachers who are members of NCSS?
- What concerns do these elementary teachers have about the teaching of social studies today and during the next five years?

The questionnaire used a combination of check-off responses and short, open-ended questions. In addition to asking for standard demographic characteristics and information about teacher preparation, the survey asked what methods teachers used to teach social studies in their classrooms. Three open-response items related to the topics being taught, the resources in use, and the ways teachers dealt with individual differences in student interests and abilities. A fourth open-response question asked teachers to express what concerns they had about teaching social studies now and during the next five years. Most teachers included detailed responses to these questions.

Responses from 98 teachers, or about one-third of those surveyed, are included in the analysis. Sixty-two percent of the respondents were teaching in grades four to six, while only 17 percent taught in grades one to three. A third group, identified as "others," included supervisors, principals, and recently retired teachers whose responses, for the most part, were similar to the active teachers' responses. These respondents provide the profession with the first set of data on characteristics, concerns, and practices of elementary teachers who belong to NCSS.

Teacher Characteristics

Seventy percent of the survey's respondents were veteran teachers with an average of 16 years of teaching experience in one or more grades. Sixty-five percent taught in a self-contained classroom.

These teachers regularly took time for their own professional development and on-going learning. Nearly two-thirds reported attendance at the NCSS annual meeting or a state or regional social studies conferences. And, 86% reported regular reading of social studies journals, with Social Education and Social Studies and the Young Learner overwhelmingly identified as the professional journals they read regularly. Respondents also listed Educational Leadership, Journal of Geography, and Phi Delta Kappan as publications they read on a regular basis. Over one-third said they had published either an article or a teaching idea in a journal or teaching guide.

Taken altogether, these teachers reported that they enjoyed teaching social studies and thought they provided quality social studies instruction for their students. They also indicated that they strongly believe it is important for their students to study social studies. They identified their greatest satisfaction from teaching social studies as feeling that they teach important content, concepts, and skills for children to learn (61%). One 5th grade teacher noted, "Our district has an excellent social studies program. I have always been encouraged and challenged to do my best instruction. It has changed a lot in the past 20 years, but it is always exciting." Another teacher reported that she integrates language arts into social studies, not social studies into language arts. A veteran teacher who had recently retired said she would really like to see social studies used as an "umbrella" for teaching many subject areas, because social studies is informative and can engage kids in active learning.

When asked about the NCSS social studies standards, Expectations of Excellence, 90% of respondents said they were familiar with them, and respondents overall viewed these standards as helpful. A teacher of a fourth-fifth grade combination class wrote, "I think the new NCSS standards have FREED me to teach the way I always have!" Another teacher noted the impact of the NCSS standards on her as making her "more aware of the things I should include within my teaching."

Three-quarters of the teachers were also knowledgeable about the content of their state and local district standards. Several indicated that their states and districts were in the process of developing new guidelines for social studies, but were uncertain as to what would be included in these new guidelines. About one third of the teachers were involved in the development of state or district social studies standards and performance assessment tasks.

Approaches to Teaching Social Studies

Teachers indicated that their instructional approaches were eclectic and that their choice of instructional activities depended upon their goals and the topic being studied. The teachers reported using a variety of strategies in their teaching. The majority of the sample (65%) still taught in self-contained classrooms, and 47% reported teaching social studies as a stand-alone subject.

Teachers were asked how frequently they used textbooks, media, and computers. Eight-one percent reported using maps/globes/satellite images at least once each week, with 67% indicating use of these geographic tools several times a week. While 90% indicated using a textbook for instruction, 45% said they used the book no more than once per week, and 8% used no textbook. Media was used in 67% of the classes, but teachers reported using film or video less than once per week. Fewer than 25% of the respondents used the computer at least once a week, with many teachers indicating that the software programs available at the time of the survey did not match the content of their curriculum study units.

Many teachers listed several teaching resources that they use frequently, and a total of 50 different resources were identified (see Table 1). Various types of written materials dominated the teaching resources selected, while the use of pictures and other graphics was reported somewhat less frequently. Teachers noted that the skills needed to interpret various forms of visual information are also important when working with computer and Internet sources of information. Geographic tools, specifically atlases and globes, likewise require additional skills for gathering and interpreting data and were among the more frequently used teaching resources. Resources involving human interactions—such as guest speakers, interviews, living experiences, role playing, and personal experience—were used much less frequently.

Most teachers (54%) described their predominant instructional approach as being social science discipline-oriented, e.g., history, geography, economics, or social studies as a single discipline. Twenty-six per cent indicated that their social studies program was predominantly literature based. Sixty-nine per cent indicated that they sometimes teach social studies as part of an integrated, multidisciplinary social studies curriculum unit. While interdisciplinary lessons are familiar to social studies teachers, many states in recent years have promoted the integration of content through thematic units in the overall elementary curriculum. The questionnaire contained seven questions designed to obtain information on teachers' training and use of integrated curriculum content. Specifically, teachers were asked whether their educational background and experiences prepared them to teach integrated/ interdisciplinary lessons, and what preparation they received to do so. Of those who responded to the question, "How did you learn to do integrated, interdisciplinary teaching?", both veteran teachers (educated in the 1960s) and newer teachers (those with five years or less of teaching experience) said they had received instruction in integrated units in their initial teacher preparation programs. Others reported that they learned this approach through a variety of continuing education experiences.

Teachers were asked to give examples of themes or topics they included in their integrated social studies lessons. Twenty-one teachers did not identify any theme on their questionnaires. The remaining 77 teachers

listed 217 one-or-two word thematic topics/titles used in their classrooms. These data indicate many elementary social studies teachers use interdisciplinary, integrated, or thematic units to teach social studies to elementary students.

The themes cited most often were "Native Americans," "Westward Movement," "Civil War," and "Colonial America," but no single topic added up to double digits.

Teachers in grades one and two stressed the teaching of cultural universals—such as housing, food, traditions, and cultural and environmental geography—through studies of the local community or other nations. This selection of topics clearly reflects the long-popular expanding horizons concept, which still dominates elementary textbook series and state curriculum guidelines, with slight modifications for the facts that the United States is now oriented more globally and is receiving immigrants from a wider range of nations.

Beginning with grade three, the largest number of titles given for integrated or thematic units fits into the category of history. Local history or the history of groups (such as immigrants, blacks, and inventors) tended to dominate the content. Geographic themes, the second largest category, focused on regions and map study. A very few third grade teachers mentioned topics related to the disciplines of economics and political science/civic ideals/democracy.

Teachers in grades four to six, and respondents in the "others" category, offered a more diverse range of responses. However, integrated study units overwhelmingly focused first on history, second on anthropology (culture, including multicultural studies), and third on geography. When disciplines not usually associated with history and the social studies were included in an integrated unit, the respondents indicated that science disciplines such as physical environments were most frequently integrated with social studies. When literature was used as the integrating mode, it was to teach about either the Holocaust or other cultures. One experienced teacher commented that elementary teachers need training and resources for dealing with topics related to economics and the globalization of world communities.

Providing for Student Differences

Teachers reported using a wide variety of strategies to respond to the different needs of their students (see Table 2). These included taped lessons, peer tutoring, journal, modified assignments (as for different reading expectations), extended time for completing work (including tests), and calling on specially-trained resource teachers. Clearly, the dominant trend is toward providing activities that are flexible in nature, including cooperative learning activities, student selection of projects, model building, and journal writing.

Most respondents wrote single words or short phrases in response to the question about providing for differences in students' abilities and interests. Some longer statements included the terms and elaborated upon them.

Knowing the particular skills, talents and interests of the children allows me to challenge those needing challenge…[For] the children needing help, I provide the right kind of research activities/materials so that they

don't feel overwhelmed. All are challenged, but allowed to work at their own speed [and encouraged] to try their best.

I use different teaching techniques such as: cooperative learning, role-playing, lecture/ note taking, discussion. I also vary the types of assignments and rarely (if ever) assign work right from the text.

[I] prepare activities for visual/auditory/kinesthetic learners each day. I've begun to introduce performance assessment techniques and individualized rubrics.

Concerns about Social Studies Education

Elementary teachers were asked to identify two or three major concerns they have about social studies education now and during the next five years. All but eight respondents replied, providing a total of 208 comments that were grouped into fourteen categories. Each category included at least five expressions of concern, and could be described in terms of either a lack (see Table 3) or a want (see Table 4) of something. The concern most frequently mentioned was the lack of priority given to social studies programs in schools and districts. This low priority was sometimes perceived as coming from other teachers or school policies that either pushed for integrated units in place of social studies or indicated that reading/language arts, mathematics, or science were the primary disciplines to teach elementary students.

In addition, new district and state policies were perceived by many teachers as weakening the social studies in favor of reading and mathematics. One teacher wrote, "In Texas, higher priority is given to other subjects by the state and/or school system. Texas tests reading and math in grade five and social studies in 8th grade." A teacher in California reported, "My principal told us this year that the state has dropped all suggested time for social studies, so it doesn't have to be taught. Very sad! I'm still working very hard in the social studies area! This year (1997) has been the worst as the upper grade teachers are completely demoralized!" Some of the teachers also indicated that this increasing lack of priority for social studies was motivated by special interest groups who opposed elements of particular social studies content.

The second greatest area of concern was the need for more staff development in social studies for both veteran and new elementary teachers. This concern recognizes both the rapid changes taking place in knowledge and technology, and the fact that the undergraduate teaching degree provides only a small amount of the content knowledge base needed to teach social studies—and is subject to becoming quickly outdated in today's world. Topics suggested for staff development included both increasing social studies content knowledge and adding new teaching strategies based on the application of technology to social studies content.

One teacher who strongly supported quality staff development programs reported that "because of all the workshops I've attended and what I've done with county and local standards, I'm finding other elementary teachers look to me as an expert. Even though I'm far from being an expert, I find I am more knowledgeable than the average elementary teacher." This is a powerful statement concerning the need for continued learning.

Concerns about testing focused on (1) the misuse of test results to evaluate teacher effectiveness and student learning to rank order schools in a district or districts in a state, and (2) the lack of parent understanding of test

results and rubrics used in alternative assessments. Several teachers noted the need for social studies leaders to work with classroom teachers to update the curriculum in order to meet the new social studies standards that have been adopted. They also noted that there should be a strong linkage between curriculum, instruction, and assessment. Teachers were eager to obtain good computer software for more topics, and to secure Internet connections to help both students and teachers in social studies learning.

Q. 3 Identify and discuss new trends emerging in curriculum development of Teacher Education programs.

In education 2017-18 Report, there are 264 million out-of-school children and youth the world over — a failure that we must tackle together, because education is a shared responsibility and progress can only be sustainable through common efforts. This is essential to meet the ambitions of the Sustainable Development Goal on education (SDG 4), part of the 2030 Agenda for Sustainable Development. Governments, schools and teachers have a frontline role to play here, hand in hand with students themselves and parents. Growing populations gaining access to education, along with evidence of underachievement in learning, have brought into sharp focus persistent deficiencies in provision and quality. These, combined with tight education budgets and increased emphasis on value for money worldwide, have countries searching for solutions. Increased accountability often tops the list. Accountability can be a virtue, describing the quality of being answerable and reliable. In this report, it is defined as a type of mechanism. On legal, political, social or moral grounds, governments and other education actors are obliged to report on the fulfilment of their responsibilities. As per 'Accountability in Education 2017-18' report, Pakistan is among those 33 countries which cannot even meet education financing bench mark. In Pakistan, the auditor general's office reported to the Public Accounts Committee of the National Assembly that $7.5 million worth of Basic Education Community Schools programme funding had been illegally diverted. The project director transferred the amount to a private account instead of a prescribed bank. The National Database and Registration Authority also detected more than 2,000 fake teacher employee identity cards and auditors tracked 349 'ghost' schools. Pakistan has monitored the attendance of more than 210,000 education staff in 26,200 schools using biometrics: fingerprints and photos, coupled with Global Positioning System coordinates. As of February 2017, as many as 40,000 absent teachers and 6,000 absconders (employed but long absent) have been disciplined. In Pakistan, teachers report on daily attendance by text messages. The forum of nine low and middle income countries committed to achieving SDG 4 account for more than half the world's population. Yet, Bangladesh, Malaysia, India, Nigeria and Pakistan do not report on global indicator 4.1.1 at any education level (early primary, end of primary or end of lower secondary). The next in line are textbooks, an important part of the school and higher levels of education. In Pakistan, the textbooks are designed according to the National Curriculum Policy 2006. The policy outlined appropriate learning goals but failed to guide about teaching methodologies and teaching materials which resulted in its failure. Similarly, the content covered in the textbooks is not directly in line with the content scope manifested in the curriculum and also does not cater to the current needs and desirable characteristics.

The textbooks have also failed to incorporate the curriculum reforms envisaged in the National Education Policy 2009. For example, it was decided that human rights-related content would be included in the textbooks. But, no success has yet been observed in this regard. The timely provision of free textbooks is the state's responsibility. Provincial textbooks boards usually take that responsibility. But they normally get late in providing the textbooks at the start of new academic year. This year, new academic sessions began from the start of April. Not to speak of other regions, students of Islamabad faced many difficulties in getting the new textbooks. Hardly 20 per cent books were available in the markets by the end of April 2016. Punjab's textbook board also failed to provide the books in time. The books contained mistakes and the binding quality was below standard. The 10th class English book is not having the 7th and 8th chapters in it and many of the middle-level books are missing some pages. In Pakistan, textbooks have also been criticised for normalising militarism and war and including biases, historical errors and distortions. Prominent Pakistanis other than military heroes and nationalist movement leaders are often excluded. Pakistani textbooks published after a 2006 curriculum reform still emphasised wars with India and largely ignored peace initiatives. They also perpetuated a narrative of conflict and historic grievances between Muslims and Hindus, rather than discussing the potential for conflict-resolution and reconciliation. Sufficient attention has not been paid to the technical and vocational education in Pakistan. The number of technical and vocational training institutes is not sufficient and many are deprived of infrastructure, teachers and tools for training. The population of a state is one of the main elements of its national power. It can become an asset once it is skilled. Unskilled population means more jobless people in the country, which affects the national development negatively. As more educated farmers are more likely to be more productive, take measures to mitigate climate change effects and adopt new technology. In Pakistan, such farmers are more likely to adopt irrigation pumps powered by alternative energy sources because they can get access to the information and are more aware of the options. Use of the pumps is associated with higher yields, higher household income and lower poverty. Experience shows households that adopted agricultural practices to counter climate change effects were more educated and had better access to weather-related information. Therefore, technical education needs priority handling by the government. There is a need for implementation of national education policy and vision 2030 education goals. An analysis of education policy suggests that at the policy level there are several admirable ideas, but practically there are some shortcomings also. It may not be possible for the government at the moment to implement a uniform education system in the country, but a uniform curriculum can be introduced in educational institutions of the country. Similarly, an effective monitoring system is needed in education departments. Education plays a vital role in nation building. Federal Ministry of Education is responsible for the national cohesion, integration and preservation of the ideological foundation of the states.

Q. 4 Elaborate psychological principles, which are used as a basis for curriculum development. Discuss the role of Psychological foundation of curriculum for assessment and measurement of learning outcomes.

Psychological bases of curriculum

- Education is for the child. The child is the center of the educational process.

- Through education, efforts are made for bringing desirable changes in the behavior of the learners.

- Psychology as a science of behavior is linked with the process of imparting education.

- It helps curriculum developers in deciding what content and learning experiences can be included in the curriculum.

- It provides bases for curriculum development in such a way that curriculum could be developed according to the children in a particular grade and their needs.

- The psychology of individual differences among children influences the plan and development of the curriculum. So, the curriculum should have enough variety and elasticity to allow individual differences, needs, and interests.

- So, we can conclude that curriculum development is guided by the ideas put forward by psychologists (Piaget, Erickson, Bruner, etc.) from time to time. Hence curriculum development has sufficient psychological bases.

Educational psychology is the branch of psychology concerned with the scientific study of human learning. The study of learning processes, from both cognitive and behavioral perspectives, allows researchers to understand individual differences in intelligence, cognitive development, affect, motivation, self-regulation, and self-concept, as well as their role in learning. The field of educational psychology relies heavily on quantitative methods, including testing and measurement, to enhance educational activities related to instructional design, classroom management, and assessment, which serve to facilitate learning processes in various educational settings across the lifespan.[1]

Educational psychology can in part be understood through its relationship with other disciplines. It is informed primarily by psychology, bearing a relationship to that discipline analogous to the relationship between medicine and biology. It is also informed by neuroscience. Educational psychology in turn informs a wide range of specialities within educational studies, including instructional design, educational technology, curriculum development, organizational learning, special education, classroom management, and student motivation. Educational psychology both draws from and contributes to cognitive science and the learning sciences. In universities, departments of educational psychology are usually housed within faculties of education, possibly accounting for the lack of representation of educational psychology content in introductory psychology textbooks.[2]

The field of educational psychology involves the study of memory, conceptual processes, and individual differences (via cognitive psychology) in conceptualizing new strategies for learning processes in humans. Educational psychology has been built upon theories of operant

conditioning, functionalism, structuralism, constructivism, humanistic psychology, Gestalt psychology, and information processing.[1]

Educational psychology has seen rapid growth and development as a profession in the last twenty years.[3] School psychology began with the concept of intelligence testing leading to provisions for special education students, who could not follow the regular classroom curriculum in the early part of the 20th century.[3] However, "school psychology" itself has built a fairly new profession based upon the practices and theories of several psychologists among many different fields. Educational psychologists are working side by side with psychiatrists, social workers, teachers, speech and language therapists, and counselors in an attempt to understand the questions being raised when combining behavioral, cognitive, and social psychology in the classroom setting.

These psychological principles act as cement in the teaching-learning process. A teacher must have good understanding of child psychology to be effective.

Psychology provides those elements which unify **Learning process**. Some philosophers have simply said that teacher simply gives information. It becomes learning according to child's psychology.

Hence, it is very important to understand basic psychological needs of the learners and reflecting on how these needs can be translated into curriculum.

e shall consider three learning theories:

- **Behaviorism:** It deals with various aspects of S-R and reinforcement.
- **Cognitivism:** It studies how the learner relates himself to the total environment.
- **Humanism:** It emphasizes on affective domain of learning.

Behaviorism:

The first theory which studied how learning occurs was named as behaviourism. Behaviorism claimed and proved that behaviour can be modified by changing the environment.

In other words, a learner responds differently to different stimulus. Accordingly, it suggested to intentionally provide a stimulus to create desirable response. It says that:

- Behavior is result of conditions in which learning takes place.
- If proper stimuli are provided, behaviour can be moulded.
- It is.possible to control learning experiences to create desired learning outcomes.
- It is important to reinforce positive behaviour to ensure its repetition.

Many principles of behaviorism are used in curriculum development.

- Remediation of behaviour, acquiring of skills and considerations.
- Defining short-term and long-term objectives.
- Suitable media and materials to suit the learners needs, and abilities.
- Positive reinforcement of positive behaviour.
- Understanding learner's needs better and developing activities and tasks according to that.

Behaviorism has gained popularity not only in educational field, but also in business and industry, government and allied, health professions, or to say, wherever human beings are involved.

Cognitive School of Thought.

Unlike behaviorists, cognitive school claims that learning is **cognitive** in nature. It explains that a man goes through different style of development from birth to maturity. Piaget gave following states of cognitive development from birth to maturity:

Sensorimotor stage: 0-2 years Age, Development: The child learns sensorimotor activities. He begins to establish simple relations between objects.

Poperational stage: 2-7 years Age, Development: Learns to take a symbolic meaning, but can consider only one dimension.

Concrete operational stage: 7-11 years Age, Development: Learns to organize data into logical relationships and can learn concepts in problem solving situations.

Formal operational stage: 11 on-wards Age, Development: Can think about abstract ideas, formulate hypotheses and deduce possible conclusions from them.

These stages follow a hierarchical order. Age limit is flexible for each stage depending on hereditary and environmental factors. Tyler, Taba and Bruner based their curriculum principles on Piaget's theory.

Tyler suggested three ways of organizing learning experience on the basis of Piaget's theory.

Continuity: Continuity implies repetition of skills and concepts in the curriculum in vertical recurring -way. It will enable learner to practice those concepts.

Sequence: Concepts should be understood in a proper sequence so that each successive experience builds on the preceding one.

Integration: It is also necessary to integrate curriculum horizontally and is unified.in relation to other elements. No discipline on subject-field can be understood in isolation of the other.

Taba suggested that Piaget's theory has significant implications for a learners intellectual development. He suggested:

- Transform complex concepts into mental operations that are suitable for learners, development stage.
- Assimilation accommodation and equilibration are important-cognitive facts that must be considered in curriculum development.
- Curriculum experiences should be compatible with existing experiences than these concepts should be organized in such a way that they move from concrete principles and classify new relationships.

Bruner's explained learning process on the basis of Piaget's concepts of assimilation and accommodation.

Acquisition: It refers to acquiring of new knowledge or replacing old knowledge with new. It corresponds to' the concept of assimilation.

Transformation: It refers to the way in which an individual processes new information. It is based on Piaget's concept of accommodation.

Evaluation: It refers to understanding and analyzing information to solve a problem. It is related to Piaget's concept of equilibration.

Q. 5 What is the process of curriculum development in Pakistan? Discuss. Write a brief history of curriculum development in the subcontinent.

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 believes 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' 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.