ASSIGNMENT NO.2

Q.1 Define the concept of "curriculum Organization". Critically analyze the content selectin criteria and procedure of secondary level in Pakistan.

Curriculum organization

In the research literature various useful evidences can be found to help to design a good curriculum organization. However, there are no standard solutions. The effectiveness of certain ideas depends on the particular context of the curriculum: the discipline, the type of instruction, the culture in the teachers' team, the aims etc. (Dearn, 2010). A number of research-based evidences that are relevant in making decisions about the organization of a curriculum in higher education are presented below.

Berkvens and Van den Akker (2013) have identified six quality criterions which should be met when (re)designing a curriculum:

Relevance: The curriculum is based on state-of-the-art academic knowledge and understanding of contextual need and wishes

- Consistency: The structure of the curriculum in logical and coherent

- Practicality: The curriculum is usable in the context it is designed for

- Effectiveness: The curriculum leads to the desired outcomes

- Scalability: The curriculum is successfully implemented scale

- Sustainability: The curriculum remains successful over extended periods of time

1. An important result of learning research is that mastering the relevant learning objectives depends on the amount that the students are involved in activities that are likely to result in their achieving those outcomes. (Dearns 2010 and Shuell, 1998)). Learning in higher education is considered to be an active learning process. From the research into learning specific principles are formulated how the teacher can engage the study to study actively in order to master the learning objectives or aims. (Shuell, ….). In the other posts a detailed insight is given of the available evidences form the research into learning.

2. According to Dearn (2010) and Van Merriënboer and Kirschner (2013) complex learning is a crucial component of the curricula of modern higher education. Professionals have to learn complex skills and competencies during their studies and they will never stop learning throughout their careers. The authors stress the importance of a holistic design approach. 'Often complex content and tasks are continually reduced to simpler or smaller elements'. 'Holistic design approaches attempt to deal with complexity without losing sight of the separate elements and interrelationships between those elements'. The learning and testing activities should be focussed on the complex learning of the students. Besides the professional competencies or complex skills, the metacognitive learning skills should have a place in the learning process: how to study, how to profit maximal from a lecture, a working group, a practical, how to prepare a thesis, etcetera.

3. Bovill et al (2011) concludes that in the existing research, the curriculum is identified as a key driver for improving the students' engagement, and thereby success from the first year onwards'. This means that a good designed and described curriculum is an important condition to realize a good learning process.

4. Gibbs (2003) has formulated an important the principle Constructive alignment that aims, learning objectives, learning and testing activities should be in line with each other.

5. Dearn, 2010; Diamond, 1998; O'Brian, 2015; Verloop and Lowyck, 2003 and the AACU, 2002 stress that the different courses in a curriculum should build on each other. The students develop insight in the content and master the main competencies step-by-step in the consecutive courses. These developments can be described with help of learning tracks for the main competencies and the main content. The learning track in a curriculum can be explained with help of a scheme, or another visualization to show the steps in the learning process in the involves courses.

6. Possibilities for personal development are important as well. For example, most students need half a year or more to learn and work as a student. They need to learn how to plan, how to study course material (written texts and digital), how to learn from video-presentations, how to work systematically, and how to learn new study skills because of blended learning (Bovill et al, 2011). Also, strengthening of the social bonding with the educational institute is likely to result in better study progress and less dropout (Tinto, 2012).

7. Curriculum models: Various curriculum models are introduced in higher education. Examples of the models are:

   - Problem based education, project education, research based education.

   - Theme oriented, interdisciplinary oriented, disciplinary oriented, competency based.

   - Applying cognitive, constructive, social critical vision

Valcke (2007) and Onstein (2014) describe these models. XXX gives also examples of models for master program. Which model(s) will be use, depends strongly on the vision of the curriculum committee. There is not one standard solutions. The models showed possible organisations. Often there are evaluation studies available. How to choose from among the mentioned models and how to design a good curriculum? For this there is no simple solution. The success of a model depends strongly on the context in which the curriculum will be used. The curriculum committee should discuss the possibilities and decide which model or combinations of models will we used. During the development and the implementation of the education the quality of the curriculum should be evaluated.

Q.2 Suggest means of improving curriculum development process of teacher educaton programs of formal educational institutions in the light of the evaluation of the program.

The **CURRICULUM DEVELOPMENT MODEL** on the next page (Figure 1) 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 development 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.

An Example: In the case of population education, a need rural out-of-school youth with information on how population relates to the total environment as well as their personal lives.
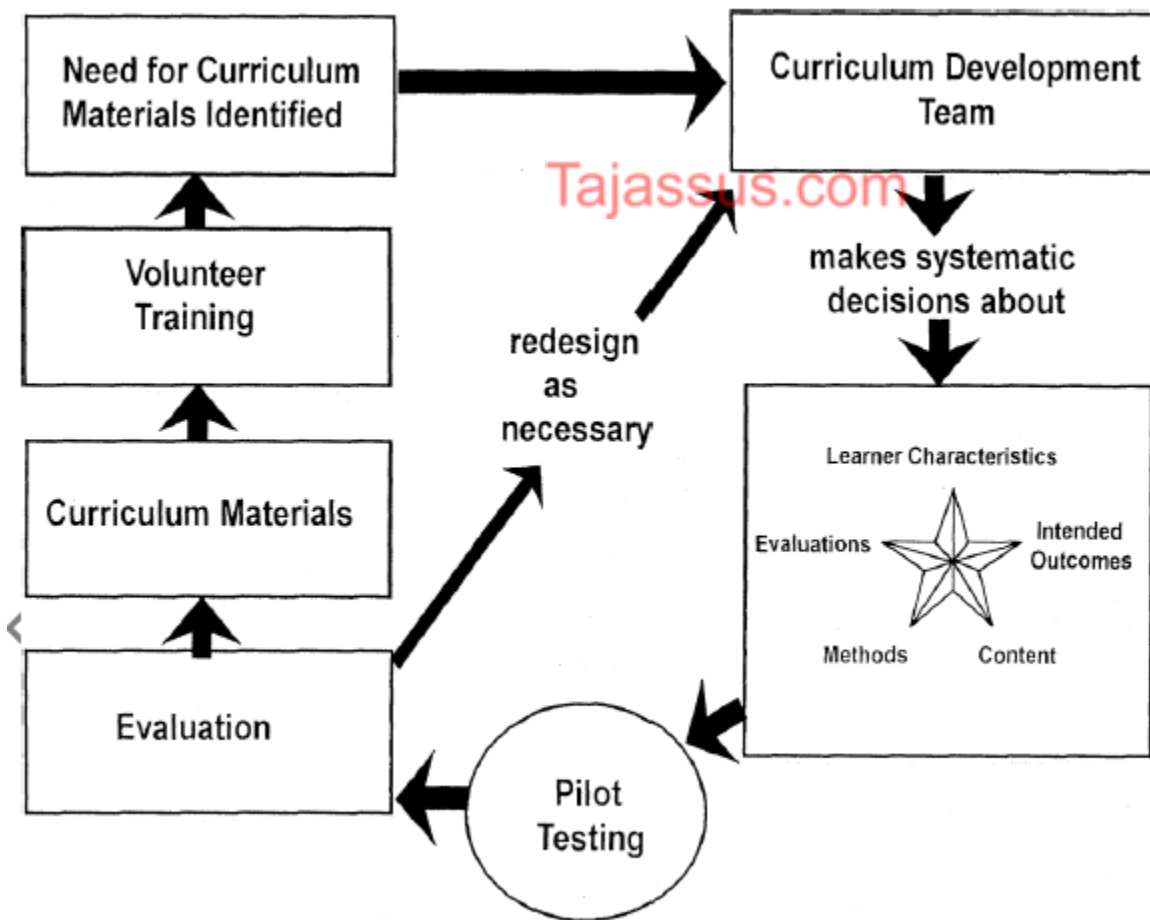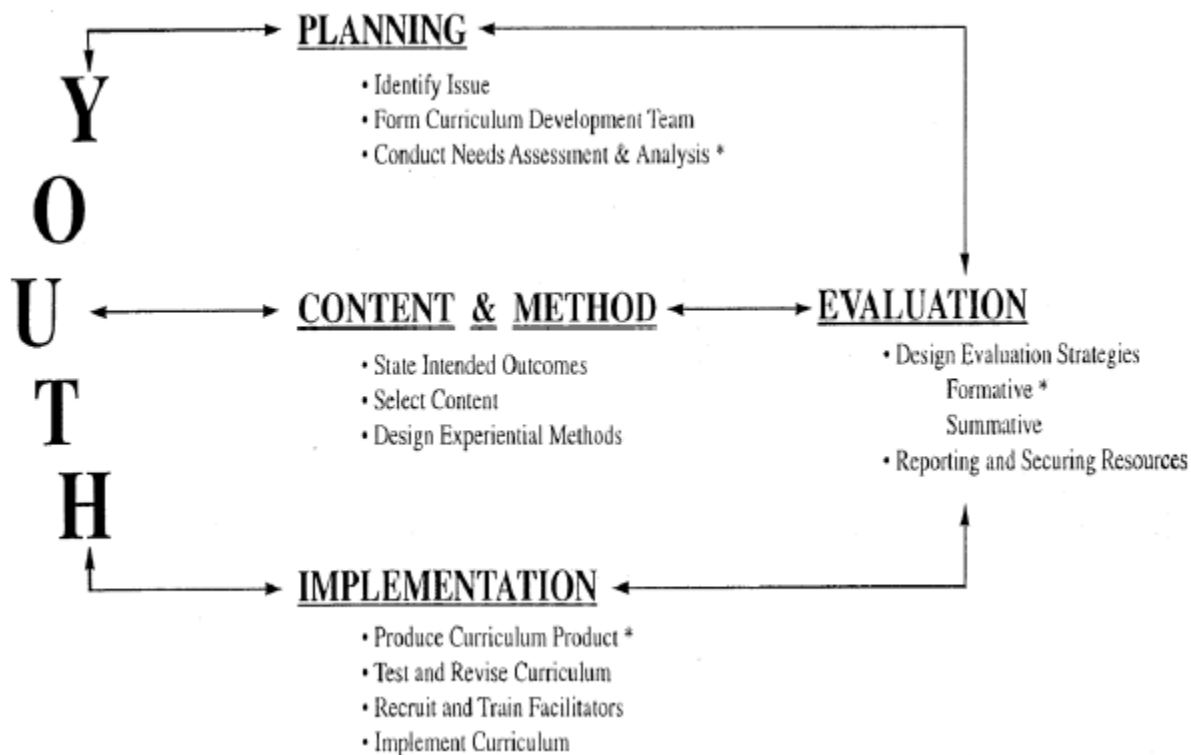(Insert Curriculum Development Model here)

Figure 1

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, and (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.

Essential Curriculum Development Steps Needing Emphasis

1. **Needs assessment:** if not conducted, wonderful curriculum could be developed, but the appropriate needs of the target audience may not be met.

2. **Involving youth:** the target audience and volunteers (or staff) who will be the implementors of the curriculum must be involved (i.e., they participate as full members of the curriculum development team).

3. **Recruiting and training volunteer facilitators:** competent and skilled curriculum implementors are critical (the printed word cannot teach experiential group process, it doesn't provide feedback).

4. **Evaluating and reporting on the impact of the curriculum:** is critical for securing human and financial support from key policy decision makers and for assessing whether the curriculum has achieved the intended outcome.

Two types of evaluation are included in the Phases and Steps illustration: **(1) Formative** provides feedback during the process of developing the curriculum, and **(2) Summative** answers questions about changes (impact) that have occurred in learners because of their learning experiences. Summative evaluation provides evidence for what works, what does not work, and what needs to be improved. In every step of the curriculum development process, the most important task is to keep the learner (in this case, youth) in mind and involve them in process. For example, the curriculum team members, who have direct knowledge of the target audience, should be involved in conducting the needs assessment. From the needs assessment process, the problem areas are identified, gaps between what youth know and what they need to know are identified, and the scope of the problem is clarified and defined. The results may prompt decision makers to allocate resources for a curriculum development team to prepare curriculum materials.

Q.3 Design a curriculum of level one functional literacy program of non-formal education.

The process of designing a curriculum program that includes components that meet the criteria described in the preceding section requires considerable time and commitment. Fortunately, the process does not have to be considered completely implemented for improvements in mathematics and science teaching and learning to be realized. Each stage of the process makes a contribution to these goals.

This report assumes that a curriculum program design committee, with representatives of various stakeholders in the school system or district, will be responsible for the design process. This process — described in this section — will be a major professional development experience for the committee members.

The process described in this section and illustrated by Figure 6 is not intended to be prescriptive but, rather, to suggest how to design a curriculum program. The boxes in Figure 6 represent key steps in the process. Factors that influence the process are represented by ovals.

Early in the process of developing or revising a curriculum program, the committee should study the mathematics and science education context of the
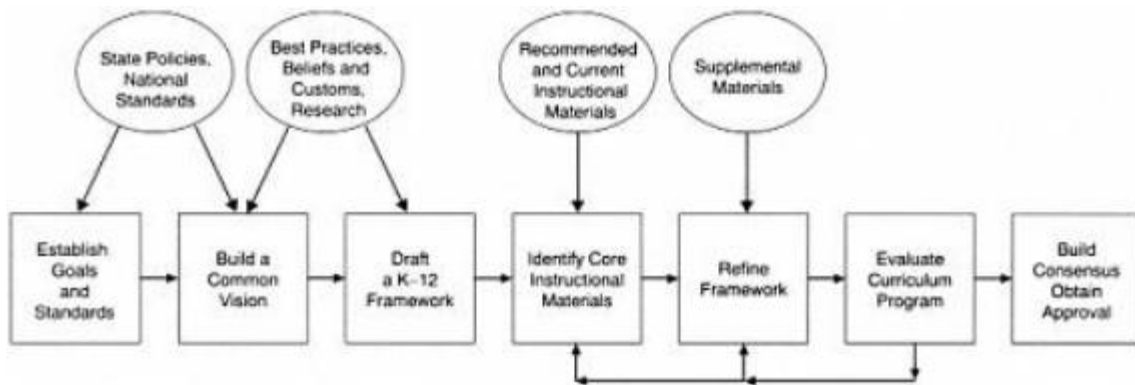
local community, community priorities, state mandates and assessments, local and state educational system structures, and local history of educational practices and programs. It is important for the committee to become familiar with this context, particularly with local, state, and national standards. Other policy documents, such as goals, mission statements, course requirements, and curriculum guides, should be considered carefully in the initial part of the design process. In addition, the committee should not only study current practices, customs, and beliefs about education in the local schools but should compare these to the educational research literature on best practices in teaching, learning, and curriculum design.

As the starting point in the development of an improved curriculum program, a district needs goals and a set of standards to guide the work of the curriculum program design committee, particularly in the important areas of creating a framework and selecting the core instructional materials.

The previous section of the report, "Components of Coherent Mathematics and Science Education Curriculum Programs," lists criteria for goals and standards and indicates how national standards provide guidance for districts that are writing their own. In recent years, most states have adopted mathematics and science goals or standards (CCSSO, 1997). It is important for the design committee to base its work on state policy since that policy determines the extent to which state goals and standards must be used locally. Some states require local districts to follow the state standards, while others expect the standards to be used as guidelines only. In some cases, state content standards guide a state's assessment program. In these cases, districts — and their curriculum program design committees — will likely choose to focus on those standards so that their students will perform well on the state assessments.

Where local or state-level standards do not exist or where state standards are optional or do not meet the criteria for high-quality standards given in the previous section of this report, design committees may want to use national standards. Many districts and states have used the following national standards as the basis for their own standards:

- The Curriculum and Evaluation Standards for Mathematics (NCTM, 1989);
- The Professional Standards for Teaching Mathematics (NCTM, 1991c);
- The Assessment Standards for School Mathematics (NCTM, 1995);
- The National Science Education Standards (NRC, 1996b); and
- The Benchmarks for Science Literacy (AAAS, 1993).

BUILDING A COMMON VISION

Even with the availability of goals and a comprehensive set of standards, the curriculum program design committee needs to agree upon and articulate a common vision for the district in its own language. Teachers, administrators, and others on the committee should translate what is called for in national, state, and local standards into administrative and classroom policy and practice for their district. The committee will want to consult research literature and other sources on best practices in teaching and learning science and mathematics. Creating a common vision of what and how students will learn mathematics and science is an important component of the development of the curriculum program, regardless of whether most of the program's components are adopted or adapted from other programs or developed independently. A common vision helps focus all stakeholders on what the school district believes is important. The vision is critical for good communication, as it will help the committee describe what the practices and behaviors of students, teachers, administrators, and parents should be when the curriculum program is in place. In building a common vision, the design committee should describe what would be observable when the curriculum program is fully developed and implemented in terms of

- what students are learning and how they are learning it;
- what teachers are doing to support, encourage, and expect learning;
- the evidence to be used during assessment of student performance; and
- activities parents, administrators, businesses, and colleges and universities are engaged in to support and encourage high levels of student performance.

Many approaches to this part of the design committee's work are possible as long as members engage in intellectual and focused discussion regarding issues of teaching and learning. One such discussion might include tracing the development of a particular concept or strand across several grade levels, and correlating this development with national and state standards documents.

Q.4 Evaluate the curriculum development process of the Canada. Recommend suitability of various ideas and processes of curriculum development in Pakistan.

The development of curricula can be thought of as the process by which specific information is transferred to a student or group of students. Curriculum development in the Canada has an interesting history that follows the

trends and patterns in population, industrial development and economic globalization. As a candidate pursuing a master's degree in education in curriculum and instruction, it will benefit you to understand how curriculum has developed in the Canada.

Early Education in the Canada

In the 1700s and 1800s, apprenticeships were the primary form of education. Apprentices trained with experts in specific vocations, such as a blacksmithing or textile production. But as industry has evolved, education has moved away from apprenticeships. In the early 1900s, curricula maintained a strong agricultural focus, which reflected a thriving agricultural sector demonstrated by many families making their living by growing farm products. But as domestic agriculture has declined, education has begun to evolve into a study of broader subjects.

Introduction of Technology

As computers and other technologies have become available, they have become a cornerstone of curriculum development. Education has widely supported the learning of technology in order to maximize students' success in a technology-driven world. If we consider that one of the purposes of school is to prepare students for entry into the workforce, it makes sense that encouraging systems-based learning and technological literacy would become a priority.

A More Holistic Approach Based on Research

Research has guided the development of important educational theories, which have deepened our understanding of how children and adults learn. This cognitive, social and cultural research directly affects curriculum development and shapes the way in which we communicate information to students. Today's teachers can use a wide array of classroom practices and tools to effectively convey information to each student.

Curriculum development in the Canada has evolved as trends in demography, economy and industry have changed. This fascinating history is further explored through coursework in a master's of education program. As a teacher, you will gain perspective on the evolution of curriculum development over the decades as well as curricula in today's educational systems.

Toward Systematic Curriculum Development

Perhaps one of the earliest forms of systematic curriculum building in career and technical education may be attributed to Victor Della Vos, director of the imperial Technical School of Moscow. At the Philadelphia Centennial Exposition of 1876, Della Vos demonstrated a new approach to teaching the mechanical arts that "became a catalyst for career and technical education in the Canada" (Lannie, 1971). Rather than leaning through conscious imitation, the Russian system utilized shops where formal instruction in the mechanical arts could be provided. This system attempted to teach mechanical arts fundamentals

(a) in the least possible time; (b) in such a way as to make possible the giving of adequate instruction to a large

number of students at one time; (c) by a method that would give to the study of practical shopwork the character of a sound, systematical acquirement of knowledge; and (d) so as to enable the teacher to determine the progress of each student at any time. (Bennett, 1937)

Using these basic principles, Della Vos set up separate shops in the areas of carpentry, joinery, blacksmithing, and metal turning where students completed graded exercises that were organized logically and according to difficulty (Lannie, 1971). The Russian system, which was noted by many Americans, had a most substantial impact on Calvin Woodward and John Runlke. Woodward initiated a manual training school at Washington University in St. Louis that closely paralleled the system developed by Della Vos. Runkle, who served as president of Massachusetts Institute of Technology, favored the Russian system to the extent that practical shop instruction was initiated for engineering students, and a secondary school of mechanical arts was established on the M.I.T. campus. These pioneer efforts served as important precursors of the contemporary career and technical and technical curriculum.

The successes of Runkle and Woodward generated great interest in this form of instruction, and soon manual training began to spring up in a number of schools around the Canada. Shopwork was even introduced into the elementary schools and, by the late 1800s, it was a formal part of many grammar schools across the nation. However, this progress did not serve as the best substitute for apprenticeship. Manual training and other forms of practical arts such as domestic science represented course work 'of a career and technical nature but these courses were incidental or supplementary to the primary function of the school" (Roberts, 1971). In response to this deficiency, schools began to organize so that students could be prepared to enter work in a variety of occupational areas. During the late 1800s and early 1900s, technical institutes, trade schools, commercial and business schools, and agricultural high schools began to flourish. Many of the offerings provided in these schools were similar in scope to those found in today's comprehensive high schools and community colleges. However, the standards associated with these programs were quite tax or even nonexistent. Quality was at best a local matter and, more often than not, did not extend beyond the concern of the individual instructor. The result was a considerable amount of inconsistency in quality among programs across the nation.

Q.5 Write short notes on the following:

a. Procedures of content Selection

Set some type of criteria to help select appropriate content for your course. Course design literature suggests the following criteria. Course content should:

- Fit with your course learning goals
- Have importance in the discipline
- Be based on or related to research
- Appeal to student interests

- Not overlap excessively with student past experience or knowledge

- Be multi-functional (help teach more than one concept, skill, or problem)

- Stimulate search for meaning

- Encourage further investigation

- Show interrelationships among concepts

Some suggestions for ordering the topics or concepts include:

- **Topic by topic** – There are no set relationships amongst the topics, so the ordering is not critical. This works well for courses that revolve around current issues, for example.

- **Chronological** – Moving from past to present is a very common and easy to implement organizational pattern.

- **Causal** – The course presents a number of events or issues that culminate in some final effect or solution.

- **Cumulative** – Each concept builds on the previous one(s).

- **Problem-centred** – Problems, questions, or cases represent the principal organizing features of the course.

- **Spiral** – Key topics or concepts are revisited throughout the course, with new information or insight developing each time.

Within each class, also consider how to organize your material so that students can both learn and retain it. Different philosophies of learning are represented. Some ideas to consider are:

- **Start with what students already know** and then move to the abstract model or theory.

- **Start with concrete examples,** such as cases, news items, or other real-world situations, then generate the abstract concepts.

- **Start with a solution, conclusion, or model** and work backwards to the question.

- **Give students time to reflect,** individually or through discussion, on what and how they are learning.

- **Build in practice time**, with feedback, either in class or on assignments so that students learn to work with the concepts and can receive assistance with problem areas.

b. Lifelong Education

Lifelong learning is a form of self-initiated education that is focused on personal development. While there is no standardized definition of lifelong learning, it has generally been taken to refer to the learning that occurs outside of a formal educational institute, such as a school, university or corporate training.

Lifelong learning does not necessarily have to restrict itself to informal learning, however. It is best described as being voluntary with the purpose of achieving personal fulfillment. The means to achieve this could result in informal or formal education.

- Voluntary

- Self-motivated or self-initiated

- Doesn't always require a cost

- Often informal

- Self-taught or instruction that is sought

- Motivation is out of personal interest or personal development

c. Discovery Method

The Discovery Learning Method is a constructivist theory, meaning it is based on the idea that students construct their own understanding and knowledge of the world through experiencing things and reflecting on those experiences. Willy Wonka very famously said "We are the music makers. We are the dreamers of dreams." Willy Wonka was a constructivist and his factory constantly used the Discovery Learning Method. That's what made his Chocolate Factory so exciting to children and adults alike–there was hands-on learning and trying in his factory. Granted, some of the results weren't favorable, but each time something happened to a child, an Oompa Loompa would sing a song not only reiterating the lesson, but also reminding the children and adults that they should have known something would happen based on their prior knowledge. This hands-on approach created lifelong lessons nobody (not even the people watching it from the comfort of their own homes) would ever forget.

d. Characteristics of Curriculum Evaluation

Curriculum refers to running; a course; race-chariot and is derived from the Latin word currere which means to run for attaining the goals of education. (Billings & Halstead, 1998:70-71; Brown, 1993:574). Within the educational context, curriculum refers to a course of study at a school, university; the subjects making up a course; an educational journey that the learner embarks upon (Brown, 1993:574; Lovat & Smith, 1995:8-9; 18-19).

Curriculum Development 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.

Characteristics

- It is a continuous process.

- It takes place at many levels.

- It involves many groups, decisions about a variety of planning and issues.

- It is ultimately concerned with the experiences of the learners.

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