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Subject : PEC-1

Knowledge and Curriculum

Topic : CHARECTERISTICS OF KNOWLEDGE

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- Oxford Dictionary

- Knowledge means facts, information and Skills acquired through experience or education. It is theoretical or practical understanding of a subject.

John Wiley:

- Knowledge is body of information, technique and experiences that coalesces around a particular subject

Characteristics of knowledge

- **Knowledge is contextual and it can be re-used**
- **Benefits of knowledge obtained only if it is applied**
- **The values of knowledge may change over time**
- **Knowledge has to be renewed or maintained**
- **It can be difficult to transfer, capture and distribute knowledge**
- **It is developed through learning processes**

Characteristics of knowledge

- **Depends on memory, past experience, expertise, knowledge transfer mechanisms, opportunities**
- **Knowledge enables higher learning**
- **Knowledge creation and utilization is enhanced with technology.**

Need of Knowledge

- For Communication
- For solving problems
- For decision making

SOURCES OF KNOWLEDGE

Empirical Knowledge(Practical)

Revealed Knowledge(Theoretical)

Empirical Knowledge (Practical

□ Empirical Knowledge (Practical)

- ❖ Empirical knowledge derived from investigation, Observation, Experimentation, experience.
- ❖ It is also called knowledge of external world. enters our brain or mind from outside.
- ❖ It is not innate, It does not pre-exist in our mind.
- ❖ Experience is the foundation of empirical knowledge.

Empirical Knowledge Includes,,,,,

❖ Knowledge through sense experience

The following methods are used to acquire knowledge through sense experience;

- Observation Method
- Learning by doing
- Learning by Experience

Knowledge through Reasoning

- True knowledge can be acquired through the method of reasoning. Reasoning is the ability to engage in thinking. If we could not think , We could not acquire Knowledge.

Inductive reasoning

Deductive reasoning

Revealed Knowledge

- Knowledge through **Authority**
- Knowledge through **Tradition**

Difference between Information and Knowledge

INFORMATION	KNOWLEDGE
Information... is much more refined data... that has evolved to the point of being useful for some form of analysis	Knowledge resides in the user... happens only when human experience and insight is applied to data and information.
Information: Processed data... formalized, capture and explicated; can easily be packaged into reusable form	Knowledge: Actionable information... often emerges in minds of people through their experiences
Information is data put in context; it is related to other pieces of data. Information is about meaning, and it forms the basis for knowledge	Knowledge... encompasses the beliefs of groups or individuals, and it is intimately tied to action
Information has been defined as data that is “in formation” – that is, data that has been stored, analyzed, and displayed, and is communicated through spoken language, graphic displays, or numeric tables	Knowledge... is defined as the meaningful links people make in their minds between information and its application in action in a specific setting
Information is data with context.	Knowledge is information with meaning
Information is a flow of messages	Knowledge is created by the very flow of information, anchored in the beliefs and commitment of its holder.
Information... as message... in the (various) form of communication... to have an impact on judgment and behavior	Knowledge is a fluid mix of framed experience, values, contextual information, and expert insights that provides a framework for evaluating and incorporating new experiences and information...

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TYPES OF KNOWLEDGE

- Knowledge has been classified into different forms based on different conceptualizations
 1. A priori Knowledge
 2. A Posteriori Knowledge

A priori Knowledge:

- It is a knowledge whose truth or falsity can be decided before or without recourse to experience (a priori means ‘before’). – Knowledge that is A priori has universal validity and once recognized as true (through the use of pure reason) does not require any further evidence. Logical and Mathematical truths are a priori in nature. They do not stand in need of empirical validations.
- Example: “All bachelors are unmarried”
is A priori knowledge, you need not have experienced the unmarried status but you have this

A Posteriori Knowledge:

This knowledge based upon **observation** and **experience** and it stresses on accurate observation and exact description. The propositions that fall under this category can be looked from the point of view of whether they contain any **factual content** and from the standpoint of the criteria employed **for deciding their truth or falsity.**

For example, we have propositions like:

- Ice melts.
- Snow is white.
- Metals conduct heat and electricity.

These propositions give us **factual information** whose truth or falsity can be decided only through **observation** and verification. – Experienced Knowledge: This form of knowledge is always tentative and cannot exist prior to experience or be concluded from observation. It must be experienced to have value.

Disciplinary Knowledge

- Discipline – An academic investigation of the concept of ‘disciplinarily’ starts off with an exploration of the etymology of the term ‘discipline’.
- The term ‘discipline’ originates from the Latin word ‘discipulus’- which means pupil, and ‘disciplina’ - which means teaching(noun). – As a verb it means training someone to follow a rigorous set of instructions, but also enforcing obedience

Elements of discipline

- 1. Every discipline has an area or field of activity, study or phenomenon which it deals with
- 2. Every discipline has its own method and mode of inquiry through which knowledge is created and validated.
- 3. Every discipline has tradition or a history

Meaning of Disciplinary Knowledge

- Discipline means fields of deep and detailed content knowledge of a particular academic area.
- A discipline is focused study in one academic field or profession
- A discipline refers to a broad , logically organised body of subject matter which is distinguished by its content and is characterised by its own structure

(Krishnan, 2009). –

A discipline is **an organised body of knowledge** with a logical structure. It is a network of **concepts and generalisations** which explain the **relationships among a body of facts.**

Characteristics of a Discipline

- Every discipline has a history. It implies the development of that particular discipline and the chronology of its growth and modification.
- Each discipline has certain domain of knowledge (**cognitive, affective and psychomotor**). –
- Discipline has a **particular object of research**, though the object of research may be shared with another discipline.
- Discipline has a substantial body of knowledge and research, which is specific to it and not generally shared with another discipline.

- Discipline has theories and concepts that organise the accumulated knowledge effectively. –
- Discipline has developed specific research methods according to its specific research requirements
- It is an individual understanding of a subject matter, concept and how these concepts relate to form large body of knowledge. Concept of Disciplinary Knowledge

What Constitutes a Discipline?

- – Discipline has its own characteristics.
- – It has a substantial body of knowledge, based upon which researches are conducted
- – A discipline is always dynamic in nature.
- – The followers of a discipline conduct research and further develop that discipline from time to time.

- – Very often, there are examples of emergence of many new disciplines from the parent discipline like; ‘Nano Technology’ from the discipline of ‘Physics’,
- ‘Microbiology’ from the discipline of ‘Biology’, ‘
- Biochemistry’ from the discipline of ‘Chemistry’ etc.
- – A discipline has also philosophical, historical and political bases/perspectives

- Activity Relating to your discipline of study and teaching at school, suggest sources and ways of acquiring knowledge in that discipline and pedagogies for effective transaction of learning experiences.
- History of English language Rules includes rules for formation of a sentence, usage of noun, verbs etc.
- ⊗ Example: For languages structure include phonics, narrations etc.
- ⊗ A history
- ⊗ A set of guiding rules
- ⊗ A domain or structure
- ⊗ Nature of Disciplinary Knowledge – It includes knowledge of all three essential elements of a discipline.

- Knowledge in different disciplines is gained through specialized techniques. – Awareness of the most common misconceptions – Differ in disciplinary knowledge and beliefs – Stereotype –
- Four dimensions of Disciplinary Knowledge
- a) Knowledge: Key elements, concepts, relationships, theories of particular discipline.
- b)Method: Modes of inquiry, ways of effective communication
- c)Purpose: goals that drive disciplinary inquiry
- d) Forms of Communication: Disciplinary language Nature of Disciplinary Knowledge

- **Intradisciplinary:**

working within a single discipline

- **Crossdisciplinary:**

viewing one discipline from the perspective of another.

- **Multidisciplinary:**

people from different disciplines working together,
each drawing on their disciplinary knowledge.

- – **Interdisciplinary:**

Integrating knowledge and methods from different disciplines, using a real synthesis of approaches.

- **Transdisciplinary:**

Creating a unity of intellectual frameworks beyond the disciplinary perspectives. Alternative Concepts

Disciplinary knowledge

- . . Include knowledge of all three essential elements of Discipline
- - A domain or Structure
- -A set of guiding rule
- -A History.
- ಶಿಸ್ತಿನ ಜ್ಞಾನವು ಶಿಸ್ತಿನ ಎಲ್ಲಾ ಮೂರು ಅಂಶಗಳ ಜ್ಞಾನವನ್ನು ಒಳಗೊಂಡಿದೆ
- - ಡೊಮೇನ್ ಅಥವಾ ರಚನೆ
- -ಒಂದು ಮಾರ್ಗದರ್ಶಿ ನಿಯಮ
- -ಎ ಇತಿಹಾಸ.

- knowledge in different Discipline is gained through different specialised techniques.
- ವಿಭಿನ್ನ ವಿಶೇಷ ತಂತ್ರಗಳ ಮೂಲಕ ವಿಭಿನ್ನ ಶಿಸ್ತಿನಲ್ಲಿ ಜ್ಞಾನವನ್ನು ಪಡೆಯಲಾಗುತ್ತದೆ.
- . Teachers differ in their disciplinary knowledge and belief.
- . ಶಿಕ್ಷಕರು ತಮ್ಮ ಶಿಸ್ತಿನ ಜ್ಞಾನ ಮತ್ತು ನಂಬಿಕೆಯಲ್ಲಿ ಭಿನ್ನರಾಗಿದ್ದಾರೆ.

- Disciplinary knowledge is stereotypical.
- ಶಿಸ್ತಿನ ಜ್ಞಾನವು ಸ್ಟೀರಿಯೊಟೈಪ್ ಆಗಿದೆ.
- Disciplinary Knowledge has four dimensions,,,
- - Knowledge
- -purpose
- -Methods
- -Forms of Communication

- ಶಿಸ್ತಿನ ಜ್ಞಾನವು ನಾಲ್ಕು ಆಯಾಮಗಳನ್ನು ಹೊಂದಿದೆ ,,
- - ಜ್ಞಾನ
- ಉದ್ದೇಶ
- -ವಿಧಾನಗಳು
- -ಫಾರ್ಮ್ ಆಫ್ ಕಮ್ಯುನಿಕೇಷನ್

- Every Discipline has certain unique features which are Characteristics of that particular Discipline.
- ಪ್ರತಿಯೊಂದು ಶಿಸ್ತುಗೂ ಕೆಲವು ವಿಶಿಷ್ಟ ಲಕ್ಷಣಗಳಿವೆ, ಅದು ನಿರ್ದಿಷ್ಟ ಶಿಸ್ತಿನ ಗುಣಲಕ್ಷಣಗಳಾಗಿವೆ.
- . Disciplinary knowledge is homogenous,
- ಶಿಸ್ತಿನ ಜ್ಞಾನವು ಏಕರೂಪವಾಗಿದೆ,

Interdisciplinary

- ---Interdisciplinary approach is an approach in which one discipline serve as the principle organiser, related disciplines serving as vital and supplemented to the principle organiser.
- - Interdisciplinary knowledge is the intergrated knowledge and mode of thinking from two or more disciplines.
- Example--If we consider economics then the knowledge of Maths and other branches of Social sciences helps to under the key concepts the his discipline.

ಅಂತರಶಿಸ್ತೀಯ ವಿಧಾನವು

- --- ಅಂತರಶಿಸ್ತೀಯ ವಿಧಾನವು ಒಂದು ವಿಧಾನವಾಗಿದ್ದು, ಇದರಲ್ಲಿ ಒಂದು ವಿಭಾಗವು ತತ್ತ್ವ ಸಂಘಟಕರಾಗಿ ಕಾರ್ಯನಿರ್ವಹಿಸುತ್ತದೆ, ಸಂಬಂಧಿತ ವಿಭಾಗಗಳು ಪ್ರಮುಖವಾಗಿ ಕಾರ್ಯನಿರ್ವಹಿಸುತ್ತವೆ ಮತ್ತು ತತ್ತ್ವ ಸಂಘಟಕರಿಗೆ ಪೂರಕವಾಗಿರುತ್ತವೆ.
- - ಅಂತರಶಿಸ್ತಿನ ಜ್ಞಾನವು ಎರಡು ಅಥವಾ ಹೆಚ್ಚಿನ ವಿಭಾಗಗಳಿಂದ ಸಂಯೋಜಿತ ಜ್ಞಾನ ಮತ್ತು ಆಲೋಚನಾ ವಿಧಾನವಾಗಿದೆ.
- ಉದಾಹರಣೆ - ನಾವು ಅರ್ಥಶಾಸ್ತ್ರವನ್ನು ಪರಿಗಣಿಸಿದರೆ ಗಣಿತ ಮತ್ತು ಸಾಮಾಜಿಕ ವಿಜ್ಞಾನದ ಇತರ ಶಾಖೆಗಳ ಜ್ಞಾನವು ಪ್ರಮುಖ ಪರಿಕಲ್ಪನೆಗಳ ಅಡಿಯಲ್ಲಿ ಅವರ ಶಿಸ್ತುಗೆ ಸಹಾಯ ಮಾಡುತ್ತದೆ.

Multidisciplinary approach

- Multidisciplinary approach
- - A multi disciplinary approach occurs when structure or concepts are selected from various disciplines to create a new field of study.
- Example;
- 1. The area of Environmental education require the us of biology , Geography,Geology, Physics, Chemistry,And Education.
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- 2. Area of population edcation requires h use of Biology, Economics,Psychology, Sociology etc
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ಬಹುಶಿಸ್ತೀಯ ವಿಧಾನ

- ಬಹುಶಿಸ್ತೀಯ ವಿಧಾನ
- - ಹೊಸ ಅಧ್ಯಯನದ ಕ್ಷೇತ್ರವನ್ನು ರಚಿಸಲು ವಿವಿಧ ವಿಭಾಗಗಳಿಂದ ರಚನೆ ಅಥವಾ ಪರಿಕಲ್ಪನೆಗಳನ್ನು ಆಯ್ಕೆಮಾಡಿದಾಗ ಬಹು ಶಿಸ್ತಿನ ವಿಧಾನವು ಸಂಭವಿಸುತ್ತದೆ.
- ಉದಾಹರಣೆ;
- 1. ಪರಿಸರ ಶಿಕ್ಷಣದ ಕ್ಷೇತ್ರಕ್ಕೆ ನಮಗೆ ಜೀವಶಾಸ್ತ್ರ, ಭೂಗೋಳ, ಭೂವಿಜ್ಞಾನ, ಭೌತಶಾಸ್ತ್ರ, ರಸಾಯನಶಾಸ್ತ್ರ ಮತ್ತು ಶಿಕ್ಷಣದ ಅಗತ್ಯವಿರುತ್ತದೆ.
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- 2. ಜನಸಂಖ್ಯೆಯ ವಿಸ್ತರಣೆಯ ಪ್ರದೇಶಕ್ಕೆ ಜೀವಶಾಸ್ತ್ರ, ಅರ್ಥಶಾಸ್ತ್ರ, ಮನೋವಿಜ್ಞಾನ, ಸಮಾಜಶಾಸ್ತ್ರ, ಇತ್ಯಾದಿಗಳ ಬಳಕೆ ಅಗತ್ಯ.

Cross disciplinary Approach

- Cross disciplinary Approach
- -Cross disciplinary Knowledge is that which explains aspects of one discipline in terms of another. Viewing one discipline from the perspective of another.
- Example: Studies of the physics of music or the politics of literature..
- it is rather than like a symphony, a composition of different elements that is elevated beyond the original components. It is seen as synthesis and advanced accomplishment that joins both generalised and specialised studies of several disciplines.

- -ಕ್ರಾಸ್ ಶಿಸ್ತಿನ ಜ್ಞಾನವೆಂದರೆ ಅದು ಒಂದು ಶಿಸ್ತು ಮಧ್ಯಂತರದ ಅವಿವರಿಸುತ್ತದೆ. ವಿವಿಂಗನ್ ಶಿಸ್ತು ಇನ್ನೊಂದರ ದೃಷ್ಟಿಕೋನದಿಂದ.
- ಉದಾಹರಣೆ: ಸಂಗೀತದ ಭೌತಶಾಸ್ತ್ರ ಅಥವಾ ಸಾಹಿತ್ಯದ ರಾಜಕೀಯದ ಅಧ್ಯಯನಗಳು ..
- ಇದು ಸಹಾನುಭೂತಿಯಂತೆ, ಮೂಲ ಅಂಶಗಳನ್ನು ಮೀರಿ ಎತ್ತರಿಸಿದ ವಿಭಿನ್ನ ಅಂಶಗಳ ಮಿಶ್ರಣವಾಗಿದೆ. ಇದನ್ನು ಸಂಶ್ಲೇಷಣೆ ಮತ್ತು ಸುಧಾರಿತ ಸಾಧನೆ ಎಂದು ಪರಿಗಣಿಸಲಾಗುತ್ತದೆ, ಇದು ಹಲವಾರು ವಿಭಾಗಗಳ ಸಾಮಾನ್ಯೀಕರಿಸಿದ ಮತ್ತು ನಿರ್ದಿಷ್ಟಪಡಿಸಿದ ಅಧ್ಯಯನಗಳಿಗೆ ಸೇರುತ್ತದೆ.

Trans Disciplinary

- A trans disciplinary approach refers to learning that is authentic and relevant to real world. Learning is not confined to traditional disciplines but is supported and enriched by them. A trans disciplinary approach moves instruction beyond just blending disciplines. This approach links concept and skills through a real world context.

- ಶಿಸ್ತಿನ ವಿಧಾನವು ನೈಜ ಜಗತ್ತಿಗೆ ಅಧಿಕೃತ ಮತ್ತು ಪ್ರಸ್ತುತವಾದ ಕಲಿಕೆಯನ್ನು ಸೂಚಿಸುತ್ತದೆ. ಕಲಿಕೆಯು ಸಾಂಪ್ರದಾಯಿಕ ವಿಭಾಗಗಳಿಗೆ ಸೀಮಿತವಾಗಿಲ್ಲ ಆದರೆ ಅವುಗಳಿಂದ ಬೆಂಬಲಿತವಾಗಿದೆ ಮತ್ತು ಸಮೃದ್ಧವಾಗಿದೆ. ಟ್ರಾನ್ಸ್ ಶಿಸ್ತಿನ ವಿಧಾನವು ಕೇವಲ ವಿಭಾಗಗಳನ್ನು ಮಿಶ್ರಣ ಮಾಡುವುದನ್ನು ಮೀರಿ ಸೂಚನೆಯನ್ನು ಚಲಿಸುತ್ತದೆ. ಈ ವಿಧಾನವು ನೈಜ ಪ್ರಪಂಚದ ಸಂದರ್ಭದ ಮೂಲಕ ಪರಿಕಲ್ಪನೆ ಮತ್ತು ಕೌಶಲ್ಯಗಳನ್ನು ಸಂಪರ್ಕಿಸುತ್ತದೆ.

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COURSE CONTENT KNOWLEDGE MEANING

- Course content knowledge refers to the body of information that teacher teach and that students are expected to learn in a given subject or content area such as English, Mathematics, science , Mathematics or Social science studies.
- ಕೋರ್ಸ್ ವಿಷಯ ಜ್ಞಾನ
- ಅರ್ಥ
- ಕೋರ್ಸ್ ವಿಷಯ ಜ್ಞಾನವು ಶಿಕ್ಷಕರು ಕಲಿಸುವ ಮಾಹಿತಿಯ ದೇಹಕ್ಕೆ ಮರಳುತ್ತದೆ ಮತ್ತು ಇಂಗ್ಲಿಷ್, ಗಣಿತ, ವಿಜ್ಞಾನ, ಗಣಿತ ಅಥವಾ ಸಾಮಾಜಿಕ ವಿಜ್ಞಾನ ಅಧ್ಯಯನಗಳಂತಹ ನಿರ್ದಿಷ್ಟ ವಿಷಯ ಅಥವಾ ವಿಷಯ ಕ್ಷೇತ್ರದಲ್ಲಿ ವಿದ್ಯಾರ್ಥಿಗಳು ಕಲಿಯುವ ನಿರೀಕ್ಷೆಯಿದೆ.

- It generally refers to the facts, concept, theories and principles that are taught and learned in a particular discipline
- The course content should enable students to gain and apply knowledge in day to day life.
- ಇದು ಸಾಮಾನ್ಯವಾಗಿ ಸತ್ಯ, ಪರಿಕಲ್ಪನೆ, ಸಿದ್ಧಾಂತಗಳು ಮತ್ತು ತತ್ವಗಳನ್ನು ಪ್ರತ್ಯೇಕ ಶಿಸ್ತಿನಲ್ಲಿ ಕಲಿಸಲಾಗುತ್ತದೆ ಮತ್ತು ಕಲಿಯುತ್ತದೆ
- ಕೋರ್ಸ್ ವಿಷಯವು ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ದಿನನಿತ್ಯದ ಜ್ಞಾನವನ್ನು ಪಡೆಯಲು ಮತ್ತು ಅನ್ವಯಿಸಲು ಅನುವು ಮಾಡಿಕೊಡುತ್ತದೆ.

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- **Criteria of Selection of course content**
- 1. Self sufficiency. -ಸ್ವಾವಲಂಬನೆ
- 2. Significance .- ಮಹತ್ವ
- 3. Validity -ಮಾನ್ಯತೆ
- 4. Interest -ಆಸಕ್ತಿ
- 5. Utility of the subject content ವಿಷಯದ ಉಪಯುಕ್ತತೆ
- 6. Learn ability- ಕಲಿಯುವ ಸಾಮರ್ಥ್ಯ
- 7. Feasibility .- ಕಾರ್ಯಸಾಧ್ಯತೆ
- 8. Relevance to present situation- ಪ್ರಸ್ತುತತೆ

Course Content Knowledge

Content knowledge Knowledge about the content to be taught,

its insertion in a disciplinary field,

its theoretical- practical implications and the relation with the other disciplines.

It generally refers to the facts, concepts, theories and principles that are taught and learned in a particular discipline.

It is essential for teaching practice because the teaching process necessarily starts in a circumstance in which the teacher understands what should be learned and how it should be taught.

The full mastery of the specific content expands the possibilities of teacher intervention and its shortage restricts the routes to be followed in teaching.

- **Criteria of Selection of Content**
- – 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 amongst concepts
- – Validity and Utility
- – Relevance to present situations

Organization of Content

- – 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.

Indigenous Knowledge

- Local or Indigenous Knowledge refers to **cumulative** and complex bodies of knowledge, know-how, **practices and representations** that are maintained and developed by **local communities**, who have long histories of interaction with the natural environment

Indigenous knowledge also known as a traditional knowledge or local knowledge refers to the matured long –standing traditions and practices of certain, local communities.

- **Warren**
- Indigenous Knowledge is the local knowledge that is unique to a given culture or society, It is basis for local level decision making in agriculture, health care preparations, education, natural resource management and a host of other activities in rural communities

- Louis grenier

- Indigenous knowledge has also been refereed to as the unique, traditional, local knowledge existing within and developed around the specific conditions of women and men indigenous to a particulr geographical area.

Forms of Indigenous Knowledge

- Medicine
- Folk Traditions
- Traditional knowledge through proverbs

- Indigenous Knowledge This knowledge is **integral to a cultural complex** that also encompasses
 - language, systems of classification,
 - resource use practices,
 - social interactions,
 - ritual and spirituality.
- These unique ways of knowing are important facets of the **world's cultural diversity**, and provide a foundation for locally-appropriate sustainable development.

Global knowledge

- When indigenous knowledge is transferred and adopted across, the boundaries and is accepted world wide it becomes global knowledge
- Global knowledge includes those problems and issues that cut across initial boundaries and about interconnectedness of systems, ecological, cultural, economic, political and technological

- The value and utility of global knowledge derives from the sense that international events require all societies and their citizens to become knowledgeable about the world beyond their by national borders.
- Some forms of Global knowledge
 - - Scientific knowledge
 - -Rational knowledge

Difference between Indigenous and Global knowledge

Indigenous knowledge	Global knowledge
It is the local knowledge that is unique to a given culture or society	It is the knowledge which remain same across the national boundaries
It is narrow term	It is a wider term
It forms the part of specific area	When indigenous knowledge is transferred and adapted everywhere it becomes global knowledge
Forms of indigenous knowledge are – folk traditions, traditional knowledge through proverbs medicinal knowledge	Forms of global knowledge are scientific knowledge, rational knowledge etc
It is confined to one specific area	It is Universal

Scientific Knowledge

- Science is the process whereby we acquire knowledge through examination and evidence.
- Scientific knowledge is based on **empirical evidence** and is **appropriate for understanding the natural world.**
-
- – Scientific knowledge **is durable and robust but open to change.**
- **The processes, methods, and knowledge of science include objectivity, as well as creativity and discovery.**

Main Characteristics of Scientific Knowledge

- 1. Objectivity
- 2. Verifiability
- 3. Systematic Exploration
- 4. Reliability
- 5. Precision
- 6. Accuracy
- 7. Abstractness
- 8. Predictability.

. Objectivity

- Scientific knowledge is objective. Objectivity simple means the ability to see and accept facts as they are, not as one might wish them to be. To be objective, one has to guard against his own biases, beliefs, wishes, values and preferences. Objectivity demands that one must set aside all sorts of the subjective considerations and prejudices.

Verifiability:

- Science rests upon sense data, i.e., data gathered through our senses—eye, ear, nose, tongue and touch. Scientific knowledge is based on verifiable evidence (concrete factual observations) so that other observers can observe, weigh or measure the same phenomena and check out observation for accuracy..

Ethical Neutrality:

- Science is **ethically neutral**. It only seeks knowledge. How this knowledge is to be used, is determined by societal values. Knowledge can be put to differing uses. Knowledge about atomic energy can be used to cure diseases or to wage atomic warfare. – Ethical neutrality does not mean that the scientist has no values. It here only means that he must not allow his values to distort the design and conduct of his research. Thus, scientific knowledge is value-neutral or value-free.

- **Authority**

- The first fundamental source of knowledge is authoritarianism. It may,
- however, be noted that its central doctrine is that, ultimate source of
- knowledge is authority of different kinds - the God, the State, Tradition of
- the
- Expert. You should notice that authoritative knowledge is accepted as true
- because, it comes from experts. We shall now analyze why authoritative
- knowledge is inadequate. The reason for this conclusion is what constitute
- authority and by what criterion we should select our authority as against
- another. Most of our factual knowledge is based on authority.

- 19. Authority – It is not a primary source of knowledge where one experiences knowledge through one's own reasoning or sense experiences. We accept certain things as true on the basis of authority. Following precautions have to be observed in the case of knowledge coming from authority: – The person must really be an authority, one who is a specialist in his field of knowledge. – Whenever one accepts another person's statement on authority, he should be able to find out for himself or verify the knowledge. For example, we can empirically check the truth of Einstein's theory of relativity, though it would take years of special training and experimentation. – The authority should be able to provide evidential proof for the knowledge he possesses and present a logical explain – The knowledge claimed by the authority should have acceptance by the other experts in that area. Sources of Knowledge (Revealed Knowledge)

- experimentation. – The authority should be able to provide evidential proof for the knowledge he possesses and present a logical explain – The knowledge claimed by the authority should have acceptance by the other experts in that area. Sources of Knowledge (Revealed Knowledge)

- **Intuition**
- Intuition is perhaps the most personal way of knowing. It occurs on what
- psychologists call the subliminal level; beneath the “threshold of
- consciousness” it is connected intimately with feeling and emotion and
- contrasts with the logical process usually associated with thinking at
- conscious
- level. As persons we see “in a sudden flash of insight” that something is
- the
- case. We apprehend knowledge directly gain direct access into the heart
- of
- reality. Yet, we do not know how we acquired this knowledge. Only an
- intense
- feeling seems to convince us we have discovered what we were looking
- for.

Religious Knowledge

- There is no Religion is the process whereby we acquire knowledge conviction through belief in revelation.
- Religious knowledge is originally gained through a revelation of god or knowledge granted to a person by holy entity.
- Way to prove or disapprove knowledge attained through revelation of holiness.

- **Revealed Knowledge**

- Sometimes one claims to know something by means of revelation.

- For example,

- “It was revealed to me in a dream” (or a vision).
What if one person had a vision that told him one thing, and another person had a vision that told him the opposite? The fact that the person had a dream or a vision, **does not show that its message is true or can be trusted**. If what it says is true, its truth can be discovered only by other means. —
Faith:

- This source of knowledge overlaps the previous one having the same problems. “I know this through faith”; “I have faith in it, so it must be true”; “I believe it through faith, and this faith gives me knowledge”. It is an attitude of belief in something in the absence of evidence. What feeling or attitude one has towards the belief, and whether that belief is true, are two very different things. So it cannot be a valid source of knowledge.

Revealed Knowledge

- Faith is in part the king of knowledge that God discloses to man. In this omniscience God inspires certain men to record. His revelation in permanent form, whereby it may become accessible to all mankind
- For the Hindu's it is contained in the Bhagavad-Gita and the Upanishads.
- For Christian's and Jew's it is contained in the Bible:
- For the Mohammedan's, in the Khoran.
- Divinely authenticated, it promises that those who accept it never, according to their own rights, can be mistaken. Human interpretation may distort parts of it, but in itself it is Divine truth.

- Revealed knowledge is confined to whatever a religion or sect accepts to be the world of God. It is also based on supernatural phenomena, but it can apply to natural phenomena, as in Genesis. There can be very little argument about the credibility of its source. It neither can be proved nor disproved. One accepts it on faint, but stressed whenever possible by reason and critical experience.

Difference between Information and Knowledge

INFORMATION	KNOWLEDGE
Information... is much more refined data... that has evolved to the point of being useful for some form of analysis	Knowledge resides in the user... happens only when human experience and insight is applied to data and information
Information: Processed data... formalized, capture and explicated; can easily be packaged into reusable form	Knowledge: Actionable information... often emerges in minds of people through their experiences
Information is data put in context; it is related to other pieces of data. Information is about meaning, and it forms the basis for knowledge	Knowledge... encompasses the beliefs of groups or individuals, and it is intimately tied to action
Information has been defined as data that is "in formation" – that is, data that has been stored, analyzed, and displayed, and is communicated through spoken language, graphic displays, or numeric tables	Knowledge... is defined as the meaningful links people make in their minds between information and its application in action in a specific setting
Information is data with context.	Knowledge is information with meaning
Information is a flow of messages	Knowledge is created by the very flow of information, anchored in the beliefs and commitment of its holder.
Information... as message... in the (various) form of communication... to have an impact on judgment and behavior	Knowledge is a fluid mix of framed experience, values, contextual information, and expert insights that provides a framework for evaluating and incorporating new experiences and information...

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Topic : Principles of Curriculum
Construction

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INDEX

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Introduction

Education is the process of development , in which efforts are made for the all-round development of a child. Education involves three process. Teaching, Training & Instruction. The learning experiences are provided with the help of the activities for bringing desirable behavioral change among students. The content is the means for organizing teaching activities..

- The learning situations are generated by tasks in which students gain new experience & have to do something; this is the objective of teaching learning. An outline of the content in the narrow sense is known as curriculum changes according to the need of the society as well as the nation so that teachers know all of the so that teachers can also know the curriculum.

Meaning and definition of curriculum

- **Meaning:**

The term curriculum has been derived from a Latin word “Curser” which means a “race course” or a runway on which one runs to reach a goal. Accordingly, a curriculum is the instructional and the educative programme by following which the pupils achieve their goals, ideals and aspirations of life.

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

- **Definitions:**

According to **Franklin**-”Curriculum is a entire range of experience and identify the child personality individually.

- According to **Cunningham** – “Curriculum is a tool in the hand of the artist (teacher) to mould his material (pupils) according to his ideals (aims and objectives) in his studio [school]”.

According to **BELL**(1975)-

“A curriculum is the offering of socially & scientifically valued knowledge, skills & attitudes made available to students through a variety of arrangement during the time they are at school, college or university”.

- So that curriculum is a continuous and comprehensive process and it is a plane for action or written towards that include strategies for achieving desires goals or ends and syllabus also help to teacher for preparing the teaching process by using different methods.

Difference between curriculum and syllabus

Curriculum

- It is let out by government administration of school, college or institutions.
- Till the course lasts.
- Curriculum uniformity for all teacher.
- Not accessible to students.

Syllabus

- It is let out by exam board.
- Term for a fixed term normally a year.
- Uniformity varies from teacher to teacher.
- Accessible to student.

Difference between curriculum and syllabus

Curriculum

- Made at state, district or institute level.
- Cannot be easily adjusted.
- It is a prescriptive.
- It is use for over all development.
- It doesn't have time limit.

Syllabus

- Made by individual teacher.
- Can be adjusted easily.
- It is a descriptive.
- It is used for only teachers.
- It has time limit.

Need and importance of curriculum

Needs:

- To introduce latest and update methods of teaching and content, new knowledge and practices.
- To correlates between the students theory courses and learning process.
- To select learning experiences base on the objectives.

- To eliminates unnecessary units, teaching method and contents.
- The future education and development of children.
- Continuous quality improvement.
- For the improvement of leadership quality among students

Importance

- Curriculum development has a broad scope because it is only about the school, the learners, and the teacher. It is also about the development of society in general.
- For the improving economy of our country.
- It provides answer or solution to the world's pressing conditions & problems.

Importance

- School curriculum, particularly in higher education must develop to pressure the country's national identity & to ensure its economy growth & stability.
- It can also be used in finding research & development endeavors & in putting up school facilities, libraries & laboratories.

Principle of curriculum construction

Education have said down certain general principles for developing curriculum some of these basic principles are indicated below:

- The principle of child centeredness.
- The principle of community centeredness
- Activity principle
- The principle of integration
- Forward looking principle
- Conservative principle

- The principle of preposition for life
- The principle of comprehensiveness
- The principle of balance
- The principle of utility
- Principle of leisure
- Principle of flexibility
- Principle of individual difference

1. The principle of child centeredness:



- Child learn from experience & activities.
- Needs of the child are satisfied & interest motivation is maintained.

- Education activity should be meaningful appropriate for the child for his all round development.
- Curriculum should according to the needs, interest, capability, capacity, aptitudes, attitude and ability of the pupil of the particular age.

2. The principle of community centeredness:



- Social needs and local needs of the learner should be taken into account.
- Reflect the values of democracy and main concerns of the country.

- He should understand member of the community and fry to solve them in a systematic way.
- Child should be in a position to face challenges.

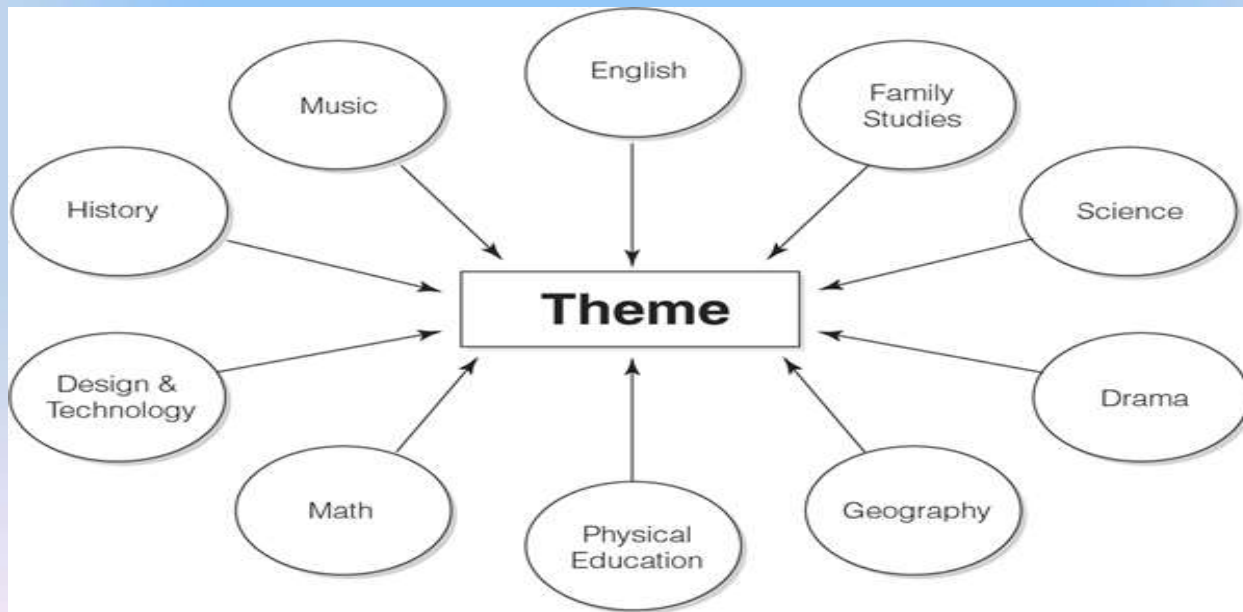
3. Activity principle:

- Curriculum must be full of activities.
- Should be a collection of experiences of practical activities, the student might learn with his personal efforts and experience.
- Child learn more from activities, it should be connected with the child desires & needs.
- Content brought through achiever because it create interest & help in the physical & natural growth of the child.
- Activity range from play actives at the primary level to creative & constructive.



4.Principle of integration:

- Should integrate child's activities & need, on the other hand, the need of 21st century should be there.
- Cognitive effective & psychomotor objectives & abilities.
- Objective & content
- Child activity & needs of the society.



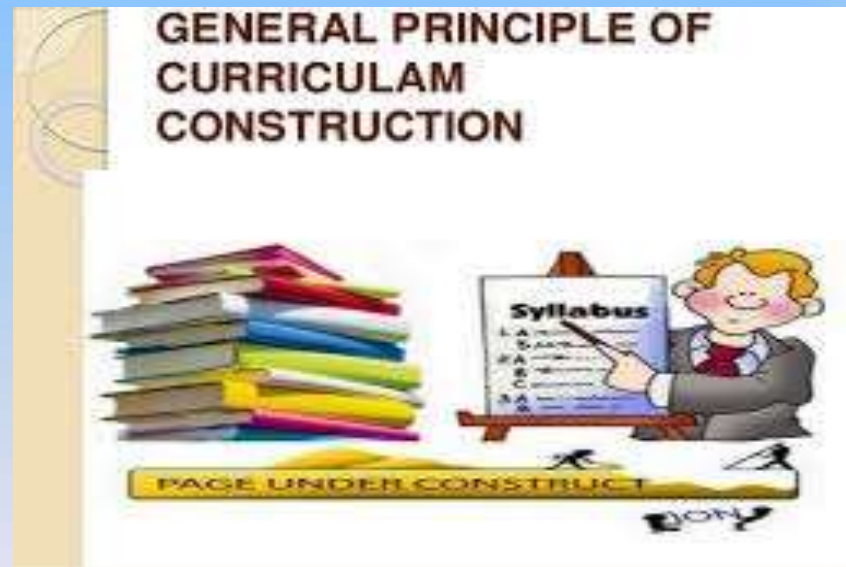
5. Forward looking principle:

- Capability of adjustment in different circumstances of life.
- Equip him to face the challenges that comes in his future life.
- Student may acquire to the ability to study real aspect of any situation.
- Quality of foresightedness.



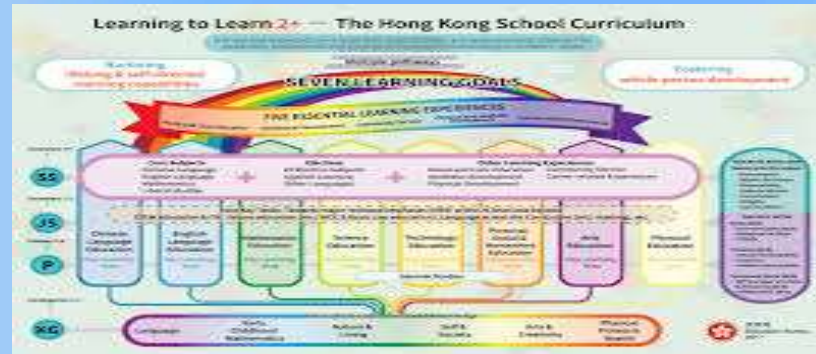
6. Conservative principle:

- Cultivate sense of respect for his traditions & culture .
- To know his past culture & traditions.
- Preserve the culture and traditions of the past should be these to that it is transmitted to next generation.



7. Renewal principle:

- Renew the culture to suit the requirement of the changing world.



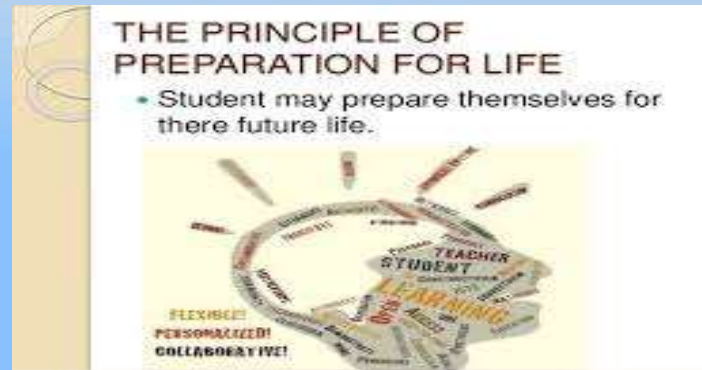
8. The principle of Utility:

Curriculum should be of practical use to the pupil and hence should maintain vocational and technical base. Emphasis should be gain to work experiences.



9. The principle of preparation for life:

- Student may pressure themselves for their future life.



10. The principle of comprehensiveness:

A variety of subjects to satisfy a variety of pupils of different communities should be there. Besides, the curriculum should be comprehensive to cater to the needs and total development of the child.



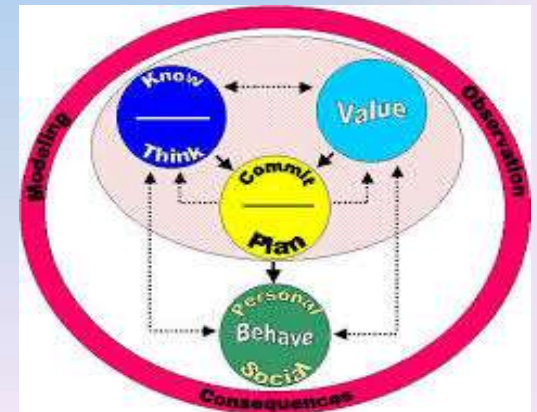
11. The principle of balance:

Curriculum should be of practical use to the pupil and hence should maintain vocational & technical base emphasis should be given to works experiences.



12. Principle of character building:

- Provide those activities & experiences which promote human & social values.
- Provision for a number of co-curricular activities.



13.Principle of leisure:

- The curriculum should prepare the child for the use of leisure time.
- Eg. Music, sports, fine arts etc.
- If leisure spent in wrong way, its not only effects the individual but also nation as a whole.
- So curriculum prepare individual to use effectively their leisure time.



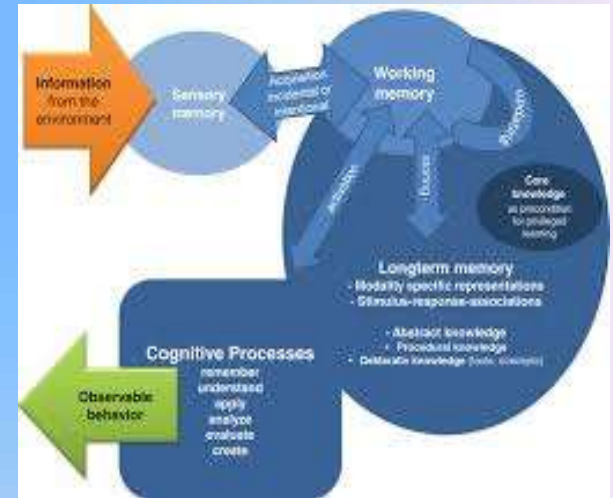
14.Principle of Flexibility:

- Should consider special needs & circumstances of the pupil.
- Curriculum of the girls may not always be identical with that of boys.
- In general the curriculum of the rural & urban school will be the same but there might be a variation according to specific needs of locality.



15.Principles of individual difference:

- Individual difference in taste, temperature, skill, experience, aptitude, innate ability & in sex.
- So curriculum should be adapted to individual difference.
- It should not be rigid.



So this are all principles play a important role to construct a curriculum and each principle say about importance of curriculum and all are must importance to child development.

Conclusion

Curriculum is therefore, every comprehensive in its scope. It touches all aspects of the life of the pupil. The needs and interests of pupils, environment which should be educationally congenial to them, way and manners in which their interests can be handled and warmed up, the procedure and approaches which cause effective learning among them.

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