UNIT - I: KNOWLEDGE AND KNOWING

Definition of knowledge and levels of knowledge – Types, kinds, forms and characteristics of Knowledge- Knowledge dimension – Categories of Knowledge dimensions – Dimensions of Cognitive Process - Indian and Western theories of knowledge. Theories of validity of knowledge: Correspondence theory of truth - Utility theory of truth - Semantic theory of truth and Deflationary theory of truth. - Knowledge in relation to information, belief and truth.

1.1 INTRODUCTION

Knowledge and its transmission are a main concern of education. Knowledge must never be thought of merely as vast bodies of tested symbolic expressions. These are only the public aspects of the ways in which human experience has come to be shaped. To acquire knowledge is to become aware of experience structured, organized and made meaningful in a specific way. In this context, knowing about the philosophical basis of knowledge and knowing various sources of knowledge and their validity become important.

1.2 DEFINITION OF KNOWLEDGE

In the most common understanding, knowledge includes the beliefs about matters of facts (things, objects, events), about relationships between facts, and about principles, laws, theories that are at work in the nature and society. It also represents our understanding about the relationships; the relationship of the knower with the known. In other words, it is the relationship of the subject with the object. Knowledge is the result of knower's active engagement with the object of knowledge. Knowledge and its intensity depend on the relationship between the knower and the known.

Knowledge includes the fact or condition of knowing which is gained through experience or association. It is a fact or condition of being aware of something, the range of one's information or understanding, the circumstance or condition of apprehending truth.

Further, knowledge is understood in terms of enlightenment. The Indian philosophy believes it as breaking the veil of ignorance. One is said to have knowledge, when one is aware of the phenomenon and can also state that the awareness is true. In the school context, knowledge is the sum of conceptions, ideas, laws, and propositions established and tested as correct reflections of the phenomenon.

Plato has examined three definitions of knowledge which are as under:

- Knowledge is perception or sensation;

- Knowledge is true belief;

- Knowledge is true belief accompanied by a rational ground.

Plato finally called knowledge as 'Justified truth', and Dewey denotes knowledge as 'inference from truth'.

The National Curriculum Framework (2005), while placing the experience of the knower at centre, also defined knowledge. According to it, "Knowledge can be conceived as experience organized through language into patterns of thought (or structures of concepts), thus creating meaning, which in turn helps us to understand the world we live in. It can also be conceived of as patterns of activity, or physical dexterity with thought, contributing to acting in the world, and the creating and making of things. Human beings over a time have evolved many bodies of knowledge, which include a repertoire of ways of thinking, of feeling and of doing things, and constructing more knowledge (P.25)."

William James: Knowledge is another name for practical achievement and success.

Prof Joad: Knowledge is an addition to our existing information and experience.

1.2.1. Types/Forms of Knowledge

Knowledge has been classified into different forms based on different conceptualisations. Based on the way, knowledge is obtained; it can be classified under three heads:

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.

"All bachelors are unmarried" is A priori knowledge, you need not have experienced the unmarried status but you have this knowledge.

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.

Explicit Knowledge

Explicit knowledge is similar to a priori knowledge in that it is more formal or perhaps more reliable. Explicit knowledge is knowledge that is recorded and communicated through mediums. The defining feature of explicit knowledge is that it can be easily and quickly transmitted from one individual to another.

Tacit Knowledge

Whereas explicit knowledge is very easy to communicate and transfer from one individual to another, tacit knowledge is precisely the opposite. It is extremely difficult, if not impossible, to communicate tacit knowledge through any medium.

The biggest difficult of tacit knowledge is knowing when it is useful and figuring out how to make it usable. Tacit knowledge can only be communicated through consistent and extensive relationships or contact. This knowledge is received through experience and training.

Propositional Knowledge (also Descriptive or Declarative Knowledge)

Propositional and non-propositional knowledge, share similarities with some of the other theories already discussed. Propositional knowledge has the oddest definition yet, as it is commonly held that it is knowledge that can literally be expressed in propositions; that is, in declarative sentences or indicative propositions. The key attribute is knowing that something is true.

Non-Propositional Knowledge (also Procedural Knowledge)

Non-propositional knowledge (which is better known as procedural knowledge, is knowledge that can be used; it can be applied to something, such as a problem. Procedural knowledge differs from propositional knowledge in that it is acquired "by doing"; propositional knowledge is acquired by more conservative forms of learning.

1.2.2 Sources of Knowledge

A) Knowledge through Sense Experience

We can know many things about the external world, and their characteristics through our senses i.e., by seeing, smelling, touching, tasting and hearing. But we can commit mistake

while perceiving things around us through our senses. For example, we may mistake a rope for a snake which is known as perceptual error. Here, it is not our senses that have deceived us but the error in the judgement. When we make a perceptual error owing to incomplete or fragmentary sense experience, it is always further sense experiences that lead us to discover our error. For example, one can get closer and confirm whether it is a rope or a snake. Thus, one can get the knowledge about the external world through external senses.

There are also 'internal senses', acquainting us with our own internal states (feelings, attitudes moods, pains and pleasures), as well as our own mental operations such as thinking, believing and wondering. In these cases, senseorgans are not involved in knowing; nevertheless, on the basis of certain experiences one may state certain propositions like "I am having a headache", "I feel sad"; "I feel ill" and so on. In all these cases the fact that we are having the experience in question is the only guarantee we have or need for the truth of the proposition. In general, feelings are occurrent states, and their occurrence warrants one to say that he or she has a headache, or feels sad or ill.

The words that can be used to describe people's 'inner states' or 'modes and emotions' are 'dispositional words'. For example, "I am in an irritable mood" means that if someone were to annoy me, I would be irritated more quickly than usual. It is important to make a distinction between occurrent and dispositional state in order to understand knowledge through internal senses. A seed having a potency to grow into a plant, but kept in a jar is said to be dispositional; when it grows into a young plant being provided all favourable conditions, then it is said to be in an occurrent state. Thus we have the knowledge of our inner states of mind which can be occurrent in a situation or dispositional (having the potency or properties) to be something given a chance.

b) Knowledge through Reason

This type of knowledge is arrived at by means of reasoning, for example 2+2=4.There are two types of reasoning which serve as the source of knowledge : deductive and inductive.

In a deductive reasoning, the conclusion logically follows from the premises. If the premises are true, the conclusion that follows must be true.

For example,

- If it is raining, the streets will be wet.
- It is raining.
- Therefore, the streets will be wet.

In Inductive reasoning, the premises provide evidences for the conclusion - but not complete evidence. The conclusion is not certain but only probable to a certain degree.

For example,

- Crow 1 is black.

- Crow 2 is black.

- Crow 3 is black, (and so on for 10,000 crows or more than that)

- Therefore, all crows are black.

Similarly, Here, though 10,000 premises where crow being black are true, the conclusion is not established. It is always possible; the next crow, which we may come across, might be white.

In inductive reasoning, truth is established based on earlier evidences for something, which is not observed. In an inductive argument, we rely on certain laws of nature, which are formulated based on certain recurring uniformities in the course of our experience.

For example,

- Green plants prepare their own food.

- Water vapourises on heating.

- Metals expand when heated.

There are countless uniformities that are quite familiar in our experience, and on the basis of them we construct inductive arguments. In an inductive reasoning, the conclusion is not certain but only probable.

c) 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

d) Intuition

It is a certain kind of experience when a conviction of certainty comes upon us quite suddenly like a flash. Intuitions sometimes conflict. For example, two people can intuit about tomorrow's weather in different way. How do we decide which of them is true in that case? If 'X' asserts that it would rain tomorrow and Y asserts that it will not, we can wait for tomorrow to find out which of the claims is true. But this we do through sense experience (seeing it rain), not by intuition. Intuition itself provides no way of deciding which of two conflicting intuitions is correct.

e) Revelation

This source has the same problem as intuition. 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.

f) Faith

People have faith in different things and the things they claim to know by means of faith often conflict with one another. Faith is a firm belief in something for which there is no evidence. 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

1.2.3 Characteristics of Knowledge

The main characteristics of knowledge can be summarised as follows –

Knowledge is a shared product:

Knowledge is generated by many and used by many more. It is not the possession of a few. There is no qualification to generate and use knowledge. It is open to use. People of all generations, geographical regions, creed, castes, and classes have generated knowledge. You must have heard of folk knowledge, tribal knowledge, knowledge generated by rural people, kings, and priests and this demonstrates that the generation and use of knowledge is universal.

Knowledge is cumulative in nature:

Knowledge grows and builds on what already exists. Knowledge does not emerge in isolation. Any new knowledge is the development or modification of the existing knowledge.

When we were students, we learnt from our textbooks that there are six continents in the world. Now students learn that there are seven continents in the world. You must have heard that Balamuralikrishna and Subbalakshmi have composed new ragas or compositions. These are compositions based on the existing ragas. A tailor modifies a dress, improvises a dress, but does not stitch something that did not exist so far

No knowledge is final:

There is always a possibility of knowledge getting modified. Some theories will be put forward, and someone else may challenge the same and show that the alternative is true. We had believed that the shape of the earth is flat, and later it was proved to be spherical.

Knowledge develops perspectives:

Let us say that you are trying to know more about a 'Dalit' community. As you proceed in your efforts, you realise that you need to study them from a different perspective. Let us say, you want to understand them from a social perspective, and knowing more about them will prompt you to study them from an economic perspective. You will proceed with that and it will open up some more perspectives. Hence, knowledge does not only make you know, but also allows and makes you know from different angles. This is the most advantageous aspect of knowledge. If a student gains knowledge about Gandhi and his work, he is not just gathering facts about Gandhi's work, he is also forming some perspectives based on knowledge.

Knowledge is acquired through sense organs:

Rose is red in colour, Lata Mangeshkar sings well, masala dosa is tasty, and jasmine has a good fragrance. How do we gain this knowledge? It is through our senses.

Knowledge is transferable from person- to- person:

We have already learnt about explicit knowledge. Knowledge can be passed on to others through records and oral traditions. You must have heard of the 'Shruthi' or 'Vedas' in the Indian context, which were transferred through generations in the oral tradition. Knowledge is meant to be transferred.

Knowledge is based on different sources:

Knowledge is based on different sources, since it has explicit characteristics. You must have heard arguments where people say, 'I am sure of what I am saying, because it is mentioned in the holy books', etc. Knowledge is based on sources like books, media, dictionary, formal institutions, etc. Sense perception, inference, verbal testimony (scriptures and valid literature of the past), and sometimes even intuition is believed to be the sources of knowledge.

Knowledge will not perish like other resources:

Knowledge is compared with fixed deposits, which no other person can claim. Anything can be robbed or taken away from a person, but not knowledge (Sanskrit phrase 'prcchanna guptam dhanam'). Though foreigners invaded India, they could not take our knowledge of arts, science, and spiritualism. It remained with us. Knowledge is an asset; it is valuable when compared with physical or financial assets.

Knowledge can be a process or a product:

While climbing a mountain, drawing a picture, or building a house, one will be constantly in the process of doing it and at the same time, acquiring knowledge. Every point in the process of acquisition of knowledge, one can experience the product of knowledge. In the process of drawing a picture, one may realise that holding a pencil in a particular way makes drawing better. This is the point where he/she can identify the product of knowledge though they are in the process.

1.2.4 FACETS OF KNOWLEDGE

There are many facets of knowledge local and universal, concrete and abstract, theoretical and practical, contextual and textual, school and out of school. It is important to have clarity on each facet, let us understand them in this section:

(i)   Abstract Vs. Concrete knowledge

Abstract terms refer to ideas or concepts; they have no physical referents, while Concrete terms refer to objects or events that are available to the senses. This asymmetry between concrete and abstract words has been explained by Paivio (1971, 1986) with the Dual Code theory. According to Paivio, words referring to concrete referents are accessed more easily than those referring to abstract referents because the information they convey rests on both a verbal and an imagery code, while that conveyed by abstract words rests only on the verbal code.

Abstract knowledge is about things that are removed from the facts of the "here and now", and from specific examples of the things or concepts being thought about. Concrete knowledge does not have any depth; it just refers to thinking in the periphery. Hence, Concrete knowledge is just regarding the facts and only has a generalized concept for all things. On the other hand, abstract knowledge requires deep learning and goes beyond the facts.

For gaining the abstract knowledge, mental processes are involved, whereas no such effort is involved in concrete knowledge. Therefore, a person with concrete

knowledge does not think beyond the facts and do not have the ability to think beyond a certain limit.

(ii) **Theoretical vs. Practical Knowledge**

Theoretical knowledge allows you to learn through the experience of others and often leads to a deeper understanding of a context. It helps to understand the concept in its context and thus teaches you to reason and question why. With the help of this knowledge, it is possible to understand the intricacies of a theory and how it can then be applied practically. For attaining practical knowledge, a deeper understanding of a concept is achieved by doing the act on your own i.e. through personal experience. In other words, you may say that practical knowledge is gained through doing things; it is very much based on real-life endeavors and tasks.

(iii) **Universal Knowledge Vs. Local Knowledge**

Universal knowledge contains the characteristic of all skills, branches of learning, etc. adapted or adjustable to meet varied requirements of all. You may say that it is a trait, characteristic, or property, as distinguished from a particular individual or event that can be possessed in common.

Thus, Universal knowledge is that which is known to be true everywhere in the Universe and all of the time. Physics and Maths are the two primary fields of study related to this type of knowledge. It doesn't matter where you are or what your situation you can rely on mathematics to remain stable. Equalities will always be equal. All of the functions of mathematics remain constant all the time and they can be used for a great many or all kinds, forms, sizes, etc, intended to be used, or understood by all.

Contrary to Universal knowledge, local knowledge does not embrace many or all skills, branches of learning, etc. It is not adapted or adjustable to meet varied requirements of the universe. Thus, it does not affect, concern, or involve all and is not used or understood by all.

Local knowledge is not experienced by everyone or available for everyone existing or true at all times or in all places without limit or exception. Local knowledge is a collection of facts and relates to the entire system of concepts, beliefs and perceptions that people hold about the world around them. This includes the way people observe and measure their surroundings, how they solve problems and

validate new information. It includes the processes whereby knowledge is generated, stored, applied and transmitted to others.

Local knowledge is the knowledge that people in a given community have developed over time, and continue to develop. It is:

- based on experience
- often tested over centuries of use
- adapted to the local culture and environment
- embedded in community practices, institutions, relationships and rituals
- held by individuals or communities
- dynamic and changing

(iv) **School-knowledge and Non School-knowledge**

School knowledge includes a hierarchically structured, chronologically graded 'education system', running from primary school through the university. And, it includes general academic subjects and a variety of specialized subjects which help the learners to get technical and professional training.

School knowledge includes learning activities that are voluntary and self-directed, life-long, and motivated mainly by curiosity, exploration, manipulation, fantasy, task completion, and social interaction. School knowledge is organized knowledge guided by a formal curriculum, leads to a formally recognized credential such as a high school completion diploma or a degree, and is often guided and corresponds to a systematic, organized education model, structured and administered according to a given set of laws and norms, presenting a rather rigid curriculum as regards objectives, content and methodology.

Out-of-school-knowledge includes that knowledge which operates before and after school, on weekends and holidays. This kind of knowledge helps in developing and nurturing the talents, in improving the academic performance and provides opportunities to form bonds with adults and older youth who are positive role models. This knowledge includes a wide array of models and approaches. Some are focused exclusively on boosting academic achievement through special courses, tutoring and homework help. Others are specifically focused on providing cultural enrichment in the visual, performing and culinary arts; recreational activities and athletics; or leadership training and community service. It corresponds to the education process normally adopted by our schools and universities. Out-of-school

setting and can be linear or non-linear and often is self-paced and visual- or object-oriented. The outcomes of out-of-school knowledge learning experiences in science, mathematics, and technology include a sense of fun and wonder in addition to a better understanding of concepts, topics, processes of thinking in scientific and technical disciplines, and an increased knowledge about career opportunities in these fields. Acquiring Out of School knowledge is truly lifelong process whereby every individual acquire attitudes, values, skills and knowledge from daily experience and the educative influences and resources in his or her environment – from family and neighbours, from work and play, from the market place, the library and the mass media

1.3 CATEGORIES OF KNOWLEDGE DIMENSIONS

The Knowledge Dimension is the "knowing what." It has four categories: factual, conceptual, procedural, and metacognitive.

Factual knowledge includes isolated bits of information, such as vocabulary definitions and knowledge about specific details.

Conceptual knowledge consists of systems of information, such as classifications and categories.

Procedural knowledge includes algorithms, heuristics or rules of thumb, techniques, and methods as well as knowledge about when to use these procedures.

Metacognitive knowledge refers to knowledge of thinking processes and information about how to manipulate these processes effectively.

1.3.1 Dimensions of Cognitive Process

The Cognitive Process Dimension of the revised Bloom's Taxonomy like the original version has six skills. They are, from simplest to most complex: remember, understand, apply, analyze, evaluate, and create.

- **Remembering**

Remembering consists of recognizing and recalling relevant information from long-term memory.

- **Understanding**

Understanding is the ability to make your own meaning from educational material such as reading and teacher explanations. The subskills for this process include interpreting, exemplifying, classifying, summarizing, inferring, comparing, and explaining.

- **Applying**

The third process, applying, refers to using a learned procedure either in a familiar or new situation.

- **Analysis**

The next process is analysis, which consists of breaking knowledge down into its parts and thinking about how the parts relate to its overall structure. Students analyze by differentiating, organizing, and attributing.

- **Evaluation**

Evaluation, which is at the top of the original taxonomy, is the fifth of the six processes in the revised version. It includes checking and critiquing.

- **Creating**

Creating, a process not included in the earlier taxonomy, is the highest component of the new version. This skill involves putting things together to make something new. To accomplish creating tasks, learners generate, plan, and produce.

According to this taxonomy, each level of knowledge can correspond to each level of cognitive process, so a learner can remember factual or procedural knowledge, understand conceptual or metacognitive knowledge, or analyze metacognitive or factual knowledge. According to Anderson and his colleagues, "Meaningful learning provides learners with the knowledge and cognitive processes they need for successful problem solving".

1.4 INDIAN AND WESTERN THEORIES OF KNOWLEDGE

Indian and western thinkers view on Education,Knowledge and Curriculum.

Rabindranath Tagore is the world famous poet- Vishwakavi and is popularly known as "Gurudev", the respected teacher. He was awarded the Nobel Prize for his book "Geetanjali". Shantiniketan and Viswabharti are the renowned contributions of Tagore to the field of education.

Tagore's views on education are a clear reflection of his humanism, naturalism, individualism, universalism and spirituality, and his contribution made him one of the brightest stars of galaxy of educational thinkers such as Rousseau, Froebel, Montessori, Dewey, etc.

Further, he envisaged that education given to our children should aim at the following:

• encourage and foster freedom of thought, independent spirit and free will,

• promote moral and spiritual development of an individual, and liberate him from different kinds of bondages

• develop the ability of assimilation and application of new ideas and knowledge, and the ability of thinking and imagination

• make the younger generation aware of their national cultural heritage and grasp its significance for them; enable them to appreciate the cultures of other countries too and also to learn from them.

• make Indian men and women more rational and less subject to meaningless social and individual rituals.

• help students to acquire 'scientific temper'. In other words, to stimulate constructive doubt, the love of mental adventure, the coverage and longing to conquer the world by enterprise and boldness in thought and in action.

• develop the individual personality as well as the social characteristics,

• develop fellow feeling among students and enable them to render social service and service to the country.

Very much like Tagore, social-cultural context in which Gandhiji lived, contributed a lot towards shaping-up his ideas about education.

Gandhiji believed that education is not a "pouring in process" but a "drawing out process". The locus of knowledge does not lie 'out side' but 'within' the child. He says, "By education I mean an all-round drawing out of the best in child and man – body, mind and spirit". Gandhiji believed in holistic development of human personality. According to him, education is not merely literacy, it is a quest for truth and non-violence, training of body and mind, and awakening of soul.

Gandhiji's educational philosophy is sound and scientific, psychologically as well as sociologically. By introducing craft, he tried to remove the gap between manual and intellectual labour, the educated and uneducated mass and promote dignity of labour, social solidarity and national integration. He also desired that ideals of democratic citizenship be inculcated in the children and regarded the school as a democratic society where they would learn citizenship, knowledge, skills and values like co-operation, love, sympathy, fellow-feeling, equality. Gandhiji's vision of the democratic society is "Sarvodaya Samaj" characteristics of which are social justice, peace, non-violence and modem humanism.

John Dewey's has been one of the most influential educational thinkers of modern times. His educational philosophy has been referred to as Pragmatism, Experimentalism, Functionalism,

Instrumentalism, Operationalism, Practicalism, and Progressivism. To begin with, Dewey was idealistic, but later moved towards the pragmatism and naturalism of his mature philosophy. Dewey's educational philosophy helped forward the progressive education movement and spawned the development of 'experiential education' programs and experiments. He referred to education as a "social need and function", as a "process of living and growth" which includes both social and individual aspects that are mutually dependent on each other.

According to him," Education is the process of reconstruction of experience, giving it a more socialized value through the medium of increased individual efficiency". He wanted each philosopher and personality to be developed not according to any absolute standard, but according to a pupil's own capacities and opportunities and specifically in a social setting as the child is considered to be a unit of society.

The main aims of education, according to Dewey are natural development, Social efficiency, cultivation of mind of individual with respect to appreciation of ideas, art and broad human interests. Dewey believed that the purpose of education should not revolve around the acquisition of a pre-determined set of skills, rather the realization of one's full potential and the ability to use those skills for the greater good of society.

1.5 THEORIES OF VALIDITY OF KNOWLEDGE

Correspondence theory of truth

The term "correspondence theory of truth" has circulated among modern philosophical writers largely through the influence of Bertrand Russell, who sets the view (which he himself adopts) that "truth consists in some form of correspondence between belief and fact". The correspondence theory of truth is often associated with metaphysical realism. Its traditional competitors, pragmatist, as well as coherentist, verificationist, and other epistemic theories of truth, are often associated with idealism, anti-realism, or relativism. Correspondence theories of truth have been given for beliefs, thoughts, ideas, judgments, statements, assertions, utterances, sentences, and propositions. It has become customary to talk of truthbearers whenever one wants to stay neutral between these choices.

Some simple forms of correspondence definitions of truth should be distinguished ("iff" means "if and only if"; the variable, "x", ranges over whatever truthbearers are taken as primary; the notion of correspondence might be replaced by various related notions):

(1) x is true iff x corresponds to some fact;

x is false iff x does not correspond to any fact.

(2) x is true iff x corresponds to some state of affairs that obtains;

   x is false iff x corresponds to some state of affairs that does not obtain.

Utility theory of truth

Pragmatic theories of truth are usually associated either with C.S. Peirce's proposal that true beliefs will be accepted "at the end of inquiry" or with William James' proposal that truth be defined in terms of utility. More broadly, however, pragmatic theories of truth focus on the connection between truth and epistemic practices, notably practices of inquiry and assertion. Depending on the particular pragmatic theory, true statements might be those that are useful to believe, that are the result of inquiry, that have withstood ongoing examination, that meet a standard of warranted assertibility, or that represent norms of assertoric discourse. Like other theories of truth (e.g., coherence and deflationary theories) pragmatic theories of truth are often put forward as an alternative to correspondence theories of truth. Unlike correspondence theories, which tend to see truth as a static relation between a truth-bearer and a truth-maker, pragmatic theories of truth tend to view truth as a function of the practices people engage in, and the commitments people make, when they solve problems, make assertions, or conduct scientific inquiry. More broadly, pragmatic theories tend to emphasize the significant role the concept of truth plays across a range of disciplines and discourses: not just scientific and fact-stating discourse but also ethical, legal, and political discourse as well.

Semantic theory of truth

A semantic theory of truth is a theory of truth in the philosophy of language which holds that truth is a property of sentences. The semantic conception of truth, which is related in different ways to both the correspondence and deflationary conceptions, is due to work by Polish logician Alfred Tarski.

Tarski's material adequacy condition, also known as Convention T, holds that any viable theory of truth must entail, for every sentence "P", a sentence of the following form (known as "form (T)"):

(1) "P" is true if, and only if, P.

For example,

(2) 'snow is white' is true if and only if snow is white.

These sentences (1 and 2, etc.) have come to be called the "T-sentences".

Tarski's semantic conception of truth plays an important role in modern logic and also in contemporary philosophy of language. It is a rather controversial point whether Tarski's semantic theory should be counted either as a correspondence theory or as a deflationary theory.

Deflationary theory of truth.

Deflationism about truth, what is often simply called "deflationism", is really not so much a theory of truth in the traditional sense, as it is a different, newer sort of approach to the topic. Traditional theories of truth are part of a philosophical debate about the nature of a supposed property of truth. Philosophers offering such theories often make suggestions like the following: truth consists in correspondence to the facts; truth consists in coherence with a set of beliefs or propositions; truth is what is acceptable in the ideal limit of inquiry. According to deflationists, such suggestions are mistaken, and, moreover, they all share a common mistake. The common mistake is to assume that truth has a nature of the kind that philosophers might find out about and develop theories of.

The main idea of the deflationary approach is

(a) that all that can be significantly said about truth is exhausted by an account of the role of the expression 'true' or of the concept of truth in our talk and thought, and

(b) that, by contrast with what traditional views assume, this role is neither metaphysically substantive nor explanatory.

For example, according to deflationary accounts, to say that 'snow is white' is true, or that it is true that snow is white, is in some sense strongly equivalent to saying simply that snow is white, and this, according to the deflationary approach, is all that can be said significantly about the truth of 'snow is white'. Philosophers looking for some underlying nature of some truth property that is attributed with the use of the expression 'true' are bound to be frustrated, the deflationist says, because they are looking for something that isn't there.

1.6 KNOWLEDGE IN RELATION TO INFORMATION, BELIEF AND TRUTH

Knowledge is the awareness or familiarity gained by experience of a fact or a situation. The content of a human mind, apart from its biological structure, contains experiences as a result of its interaction with the environment. It is based on things that one interacts with on a daily basis, as many times people perceive based on what they have seen, experienced, heard, read, learned or inferred after some experimentation. These experiences and perceptions are then categorised in the mind as data, information, knowledge, understanding or wisdom. Unlike

wisdom, information and knowledge perceptions are results of what the brain has recorded in the past. The brain assimilates mental figures and impressions. People often use the terms interchangeably without knowing that there are slight and subtle differences between knowledge and information. Belief is a subjective truth. Truth is an abstract imagination; both differ to some extent. It is essential to know how knowledge differs from information.

1.6.1 Information and Knowledge

The word'information' comes from the Latin language and information means to give from the mind which involves instruction and learning points. Data becomes information when it is applied to some purpose and adds value to the recipient. For example, a set of raw sales figures is data. It is the sales report that provides information.

Definitions of Information

"The term information is generally described as the structured, organized and processed data, presented with the context, which makes it relevant and useful to the person who wants it. When raw data turn out to be meaningful after conversion it is known as information. It is something that informs in essence". Merriam Webster Dictionary defines information as "The data about any content or any person which provides real description." According to the Oxford Dictionary, "The collection of content through study, communication, research is information".

Characteristics of Information

It has different forms/dimensions;

- It changes from period to period;
- It may include twisted or wrong elements;
- It is elaborated knowledge;
- It can be accurate, relevant, complete, and available;
- It can be communicated in the form of a message or through observation;
- It can be obtained from various sources such as newspaper, television, internet, people, books, and direct perception;
- It is a bunch of data and works with the help of data; and
- It may sometimes be inaccurate, irrelevant, incomplete, and not available.

Educational Uses of Information

- Gives different meaning in different contexts;
- Has important role in educational research;
- It is the basic source of all study subjects, which contains some information; and
- Varies in depth, scope, and nature.

Forms of Information

There are two forms of Information. General information, and Selected information. General information is known and shared by all. When we select information for some purpose, it is selected information. Information can be clear or vague. Thus, information is about description, facts, statistics, and context factors in the form of data of a specific system, linked to a subject- matter of any content. It will always be given as content-based message.

Types of Information

Information can be of many types –

1. Numerical Data- This data has meaning as a measurement such as a person's height, weight, IQ or blood pressure. For example, how many pages did you read of your favourite book before sleeping?

2. Verbal Information- The sharing of information between individuals using speech. For example, if you want to be promoted in your job.

 3. Pictorial Information -It is learning from pictures and is useful for children in classrooms, which require cognitive abilities.

 4. Descriptive Information- A set of information, consisting primarily of package descriptions, which is provided for data management to support the findings, ordering, and retrieving. For example, museum.

5. Simple and Complex Information -Simple information is easily understood by others. For example, information about a flower. Complex information needs efforts cognitively to understand. For example, the structure of the brain.

6. Symbolic Information- Information written as sequences of symbols which is normally text, and is represented by systems of symbols. For example, a red rose may symbolise love and compassion.

7. Scientific Information -It is a field primarily concerned with the analysis, collection, classification, manipulation, storage, retrieval, movement, and dissemination of recorded knowledge treated both as a pure and as an applied science. For example, science exhibitions.

KNOWLEDGE

Collection of information is a way to get knowledge. Knowledge is a self-process, acquired from its surroundings, and by many experiences. It is acquired through education. Knowledge means what can be known by an individual or by mankind. Knowledge is understanding something about the environment. Knowledge is always concerned about knowing something. This something can be natural objects, man-made things, events, processes, activities, relationships, and many other things. Knowledge always refers to

comprehension. Acquisition of knowledge or build-up of knowledge by its very nature always refers to a process of moving from ignorance to understanding. Knowledge is also common sense, understanding the relationship of the knower with the known.

Definitions of Knowledge

Knowledge is understanding based on information, which a person gets. Human beings can get knowledge through education and from other sources. Information refers to data that has been processed. Knowledge is the result of the ability to make meaning of information. Information comes first and knowledge results from information. To get knowledge, you need some cognitive and analytical ability, while for information you do not need intellectual ability. Information is based on the presentation of data, whereas knowledge comes from the examination of the data.

Sources of Knowledge.

Perception, memory, experience, books, journals, experts, problems, research, seminar, conference, websites, media, etc. are the sources of knowledge. For example, a list of the parts of the human body is information, but its structure and functions are knowledge.

Differences between Knowledge and Information

Knowledge	Information
Dynamic.	Static
Tacit or Implicit	. Explicit
Involves awareness and intuition depending on the maturity of the individual	Does not involve awareness and intuition.
It gets information and modifies to make it useful	Processed data.
Identical reproduction is not possible.	Can be easily reproduced.
Most knowledge is based on information.	All information need not lead to knowledge

1.6.2 BELIEF AND TRUTH

Belief

The term belief and truth are often used in philosophy. Belief is related to a man's mental situation. Based on belief, man thinks about a context. Belief develops in a man from infancy. In the beginning, the value of a fundamental belief develops through the mother, followed by social relations developed on traditional beliefs. A belief is the subjective requirement of knowledge. This means that a belief is biased and personal understanding and judgement. Forming belief is the basic feature of the human mind. When beliefs are justified and proven true, they assume the form of factual knowledge. The concept of belief was defined by Plato. According to him, 'belief is justification of truth'. It is a mental representation and a positive base for truth. Belief is an acceptance that a statement is true or that something exists. Etymology of the word Belief The word 'belief' comes from an old English word 'geleafa', which means faith or confidence. When a person accepts something without evidence, it is belief.

DEFINITIONS

Author Definitions Goldin (2002) -Beliefs are multiplied, encoded, internal, cognitive/ affective configurations to which the holder attributes truth value of some kind.

British Dictionary -Belief is a feeling; it is faith about few/any existence of matter or about the truth.

Merrium Webster- Belief is a definite confidence about a person or about a Dictionary matter.

So, belief is a system of thought, that is, comprehension of the information we have accumulated and stored in our brain. All beliefs are not true, for example, people in some cultures believed that smallpox was caused by the wrath of the Goddess. But this was proved false when the smallpox virus was discovered.

Characteristics of Belief

There are few characteristics of belief such as –

- Related to man's mental condition;
- Based on person pre- and post- actions;
- Based on appropriate, good, valued elements;
- It is a positive behaviour; and
- It is a psychological notion applied to biological factors.

KINDS OF BELIEFS

There are 3 kinds of beliefs –

1. **Vague belief** - When there are no concrete, supporting statements. For example, eating nuts can make you smart.

2. **Well-supported belief**- You cannot rule out such a notion. For example, you believed that the test was difficult since you got a failing marks.

3. **Beyond a reasonable doubt**- We cannot say it is a fact unless we are the one who experienced it. For example, the lady saw the World Trade Centre collapse. It is a fact, but we are still not certain whether it collapsed or not.

The Concept of Truth

Truth is fact reality. It is a state of being true. For example, fuel gives energy. Generally, truth is called as fact/reality. In modern context, truth is attestation, true to self. Human activities are based on the concept of truth. It isSubjective, Objective, Relative, and Absolute. Based on these factors, "as time goes on, the knowledge, which in self and in nature without perishing stays permanently, is called truth"

Etymology of the word Truth The word 'truth' comes from an old English word 'Triewth'meaning faithfulness or constant.

Definitions

Gandhiji said that truth is god and god is truth.

According to Martin Hegdar,

• Truth means involvement of fact in a concept;

• Truth that which is true or in accordance with reality; and

• Truth is defined as that which is unchallengeable.

Characteristics of Truth

- It is a abroad concept;
- It is value- based;
- It is a result of research and enquiry;
- It is a universal statement, based on evaluation;
- It expects evidence, base;
- It is a pool of constant principles; and
- It is an abstract imagination.

Truth is absolutely free from fear or anxieties. It purifies the speech and mind, so truth is the purest knowledge. The story of Harishchandra is an example to show the value of truth. We

talk differently about truth in our material world. Such as scientific truth, permanent truth, time-being truth, all these truths are important in our life.

Differences between Belief and Truth

Belief is an assumed truth. Our actions are led by what we believe in. Truth is characteristic of a statement. It is a property of beliefs; it assumes various forms depending on the context and the emotion it evokes in the knower. Our beliefs in miracles may actually be accepted truths, whereas truths are variable beliefs. Truth is by research and testing. Belief is by experience and imagination.

Differences between belief and truth

Belief	**Truth**
Indoctrinate and forcing acceptance	Rational, reasoning, and universal
Subjective	Objective
Positive imaginative factor	Concrete- based factor
Contextual opinion	Universal opinion
Evidence not required	Formed by evidence
Depends on values accepted	Depends on factual evidence
A mental condition of a person	Related to attestation of context

Truth and belief have some common elements. For example, fact or reality, but they are not the same. Example- Your belief- Sun is hot- is a truth Your belief in honesty is the best policy may not be true. Some people believe that honesty is the best, should lead life according to it. But few people also believe that honesty is not true. They think that everything in life cannot be based on honesty. Sometimes it needs compromise with situation and ideas.