

## UNIT- 1

### CONCEPTUALIZATION AND PRINCIPLES OF LANGUAGE ACROSS THE CURRICULUM

Language Across the Curriculum, meaning, concept goals, aims, needs and importance of Plurilingualism. - Modes of human activities involving language -Language Objectives: relationship between language and thinking – development of conceptual literacy – Basic tenets of language across the curriculum. - principles of language across the curriculum – integration across the curriculum: personal and pedagogical integration.

#### **Language Across the Curriculum- Meaning**

'Language across the Curriculum' means attempting to develop language ability not only through language classes by the language teacher, but in the context of other subjects by other teachers also.



#### **Concept of Language Across the Curriculum**

Concept of LAC claims that language and learning are interlinked. So, to acknowledge and develop Children's existing mental and Linguistics capacities, LAC focuses on active and Constructive learning.

The relationship between language and thinking has become central for LAC, supported by findings in cognitive science, but also in linguistics and language pedagogy itself. So we can state that:-

- Language is more than communication skills.
- Language is linked to the thinking process and is used in it.
- A language is a tool for conceptualizing and for linking information.
- The language supports mental activities and precision in cognition which is particularly true for Subject-based writing.
- Language helps to bridge between cognitively demanding tasks and their solutions.
- LAC is important for young learners to function well within the school and academic setting.

### **Goals of the Language Across The Curriculum**

1. The goal of LAC is to support language development in each and every child in each learning activity in school
2. To support and success in academic learning
3. To improve 4 language skills (LSRW) as a whole. The aim of LAC is to develop children existing mental and linguistic capacities
4. To develop thinking process of the student as language is linked to the thinking process
5. The goal of LAC is to assimilate new concept largely through language, that is when they listen to talk, read and write
6. The overall goal of LAC is not just developing cognitive, academic and language proficiency but also conceptual literacy.

### **Aims of the Language Across The Curriculum**

1. To support language development in each child.
2. To Support language development in all domains of language use.
3. To support language development in each learning activity in schools.

Various subject teachers can take joint responsibility for language development within limits defined by specific aims of the subject. A variety of teaching methods that enhance abilities to use language in varied ways will also enhance the learning process. So the main aims of LAC are:-

- Developing subject-specific concepts and genres.
- Developing varied strategies for learning through language use.
- Developing meta-prospective on knowledge.

### **Need and Importance of the language across the curriculum approach**

#### **(A) For students**

1. It helps learners to improve their communication skills in a foreign language.
2. It helps students to learn the content more.
3. It helps learners to expand their ideas.
4. It helps learners to discuss different issues in a foreign language.
5. It helps learners to collect different technical terms related to different subjects.
6. It opens a vast career world before the students.
7. It helps students getting admitted to foreign universities.
8. It facilitates effective self-study and referring.

#### **(B) For Teachers**

1. All teachers can improve their skills in a foreign language.
2. It helps teachers to teach the content in a foreign language.
3. It helps teachers to update their knowledge.

4. It helps teachers give clear instructions to students in Foreign Language.

Language skills are important even if the student is studying subjects like science and mathematics etc. In these subjects students need reading, writing and reflecting competencies and skills that are possible only through competent language skill. Sometimes the difficulty in solving a word problem in mathematics is one with understanding the language. Teachers must encourage students for reading, writing and speaking in all the areas of the curriculum. Language naturally is present in all areas of learning. Teachers must use all opportunity that curriculum offers, for developing language skills. A lot of attention needs to be given to the other language skills like reading, listening and speaking.

### **Modes of Human activities involving language**

There are Five modes of human activities involving language learning. They are--

1. Listening
2. Speaking
3. Reading
4. Writing
5. Viewing

**Listening:** The language art of listening begins developing at birth and provides the basis for development of speaking, reading and writing skills. Listening can be defined as the interpretation of sounds that are heard. When a baby is first born, he immediately begins to receive sensory impressions, including hearing sound. Young children learn much language

by listening to those around them. They listen not only to spoken words but also to the rhythms and intonation pattern of the language that they hear. They take the language they hear and make generalizations based on it.



Listening is a skill that allows a person to receive oral information from others. It is therefore sometimes referred to as a receptive skill and as an oral language skill.

**Speaking:** Speaking is making use of vocal sounds to communicate with others. The new born baby comes into the world making a variety of sounds. These sounds however, are not produced in an effort on the part of the child to convey meaning in his early days. Except, in the case of crying and whimpering, the child is simply producing random sounds of which his vocal mechanism is capable of. Meaningful speech develops as children learn the effects of particular sounds on the people around them.

Speaking is often referred to as an expressive skill and an oral language skill. The speaker encodes a thought into an oral message and transmit this message to a listener, who must decode the oral symbols in order to understand the message.

**Reading:** Reading is the interpretation of written symbols. It involves visual perception of the symbols, sometimes translation of the visual symbols into auditory ones and the connection of meaning with these symbols.

Initial stages of learning to read generally follow those of learning to listen and learning to speak. Understanding oral language forms the basis for understanding the ideas found in print. Reading is a way of taking information that has been recorded in print by another person. Thus it is classified as a receptive skill and a written language skill. Reading serves many functions for the reader. It provides information or entertainment. It offers challenges or relaxation. Each reading activity may be for a slightly different purpose.



**Writing:** Writing involves communicating with others through the printed word or recording ideas of oneself. It is classified as an expressive skill and a written language skill. The writer encodes a message, which is decoded and interpreted by the reader.

Writing allows a person to record and preserve information or facts which can be read by the successive generations. This ability to span time offers many possibilities to writers with varying purposes-- Transmission of instruction for performing tasks, preservation of the folklore and customs of a people, entertainment of the reader and persuasion of a reader to adopt a point of view, among many possibilities.

**Viewing:** Viewing refers to interpreting visual media. These media include photographs, illustrations, graphs, maps and diagrams found in books as

well as video presentations found on television, internet sites, CD-ROMs, DVD- ROMs.



It can even include live performances in theatre or classrooms. Students today are updated with visual media that are attempting to convey information to them, persuade them to do or believe something or simply entertain them. The messages received from these media must be comprehended using the same thinking skills needed for comprehending print materials(i.e. read).

### **Language Objectives: relationship between language and thinking**

Language is a symbolic tool that we use to communicate our thoughts as well as represent our cognitive processes. Language is the mirror of thinking, and it is one of the ways in which we communicate our rich cognitive world.

We can talk about three different interactions when we investigate the complex relationships between language and thinking. First, the existence of language as a cognitive process affects the system of thinking. Second, thinking comes before language, and the learning of a language interacts with the conceptual process that is formed before language use. Third, each language spoken may affect the system of thinking. Here we will discuss these three interactions under these subsections: “thinking without language,” “thinking before language,” and “thinking with language.”

## **THINKING WITHOUT LANGUAGE**

Unlike animals, humans use language both for communication and for symbolic reasoning. This strengthens the argument that language facilitates concept formation. It is known that animals too communicate thoroughly, give warning cues in case of danger, imitate sounds, and communicate with hand gestures as observed with primates. Still, processes such as cause-effect relations and the acknowledgment of others' thoughts, demands, and goals are believed to be more advanced in humans. For example, hearing-impaired children born to hearing parents, sometimes learn sign language with a delay. Such children can communicate with people inside the home using signs that they develop. However, it is only with a delay that they learn words to describe abstract cognitive and emotional notions such as understanding, thinking, and feeling. Additionally, it is shown it takes longer for them to comprehend the notion of mind, when compared to their peers who can hear and express abstract words.

Language and thought being closely tied to each other, the expression of thought is not always achieved with words. People who have speech problems can express their thoughts in other ways using nonverbal communication.

## **THINKING BEFORE LANGUAGE**

The best example to understand whether thought or cognitive processes exist before language is research on babies' comprehension of concepts and how they may change with language. Babies can categorize objects and actions, understand the cause and effect relationship between events, and see the goals in a movement.



In short, while children universally perceive the different relationships of concepts, they differentiate notions expressed in their mother tongue and lose sensitivity in differentiating others as they learn their mother tongue. When they grow up, however, they can still learn such differences if they pay attention or if they receive training to do so.

## **THINKING WITH LANGUAGE**

The language we speak changes our perception of the world and shapes our concepts. In short, language is not used only for communication purposes. In this view, people speaking different languages have different world views. For example, the Russian and Greek languages identify shades of green and blue in detail and people speaking these languages can differentiate between such shades much more easily and with greater speed. A more striking example comes from languages that use gender in identifying objects. Languages such as Spanish, French, and German attribute gender to objects. More interestingly, an object with a female affix in a language may have a male affix in another language. For example, the word “key” has a male affix in German and a female affix in Spanish. Similarly, the word “bridge” has a female affix in German and a male affix in Spanish. These are random matches in a sense. People with mother tongues like German or Spanish take a test in English as their second language.

Thus, there is a nested relationship between language and thought. In the interaction processes mentioned above, the role of language changes. Even though the limits of our language are different from the limits of our thinking, it is inevitable that people prioritize concepts in their languages. This, however, does not mean that they cannot comprehend or think about

concepts that do not exist in their language. Future research on abstract notions such as emotion transfer or expression of time will shed light on the interaction of language and thought.

### **Development of conceptual literacy**

Concept Development is a strategy used by teachers to promote higher-order thinking skills and cognition in children. It's not about teaching them what they should know, but instead getting kids excited for learning through exploration of concepts with critical questions that require logical reasoning or analysis. For adults using this method may sound more like talking oneself through the process of understanding something rather than just imparting knowledge onto another person who already knows everything there. Conceptual learning lies at the core of higher education, and helps students draw from what they have learnt and apply it when required

The conceptual learning model is a fresh approach that focuses on understanding concepts rather than just organizing and distributing data. It is centred on 'why' and 'how'; a much-needed change in the traditional educational system.

One great way to achieve this is through an audio-visual tool. Although a standalone audio-video approach is not the solution on its own, it can be a powerful tool in the hands of the teacher. They can use it to explain various concepts effectively. As students move on to pursue higher education, they must be capable of applying the knowledge they have gained. Conceptual learning enables them to draw from what they have learned and use it to grasp new topics. It helps students and teachers alike to develop a deep understanding of how the concepts inter-relate with each other and build an exemplar that will empower them throughout their education and career.

When conceptual learning is applied to Maths, students take descriptions and conditions into consideration, while working in a cooperative setting to generate and solve mathematical problems. Teachers encourage students to practice flexible thinking and perceive connections between mathematics and other areas of education. This is different from using procedural mathematical skills. The exercises are incorporated into learning tables, formulas, algorithms, and so on.

In Science, it is easy for misconceptions to develop and get carried through the higher education or the career journey. Therefore, it is vital to identify these misconceptions early to develop a conceptual understanding of Science.

### **Basic tenets of language across the curriculum**

- Language develop mainly thorough its purposeful use (domains to be broadened)
- Learning (often) involves talking, writing, shaping and moving (normally in reaction to perceptions)
- Learning often occurs through speaking or writing as much as through shaping and moving language use contributes to or as a pre-requisite for cognitive development
- Language is the medium for reflecting on learning, for improving it and for becoming (more or less) autonomous learners)

### **Principles of language across the curriculum**

Language across the curriculum (LAC) relates to linking different forms and aspects of language education within the school, particularly emphasising the role of language in all subject-matter learning. LAC has two meanings: in the narrow sense it is a concept suggesting the importance

of language work and language training in all non-linguistic subjects. In the wider sense it is a concept demanding a comprehensive model of language education as the basis of a whole school language policy. The latter includes linking all languages as subjects (mother tongue education, foreign language education, second (or third) language education) and the language dimension in all other subjects.

Language plays a central role in learning. No matter what the subject area, students assimilate new concepts largely through language that is when they listen to and talk, read and write about what they are learning and relate this to what they already know. Through speaking and writing, language is linked to the thinking process and is a manifestation of the thinking that is taking place. Thus, by explaining and expressing personal interpretations of new learning in the various subject fields, students clarify and increase both their knowledge of the concepts in those fields and their understanding of the ways in which language is used in each.” (Ontario Ministry of Education 1984; quoted in Corson 1990: 75).

### **Principles of language across the curriculum**

- CONTENT BASED INSTRUCTION (CBI) or CONTENT INTEGRATED LANGUAGE LEARNING(CILL)
- PRINCIPLE OF SKILL ACQUISITION
- PRINCIPLE OF IMMERSION
- PRINCIPLE OF FUNCTIONAL LEARNING

### **CONTENT BASED INSTRUCTION (CBI)**

Natural language acquisition occurs in context; natural language is never learned divorced from meaning, and content-based instruction provides a context for meaningful communication . By Hathib K.K.

## **Principle of SKILL ACQUISITION**

As Language is a skill, it is important to go on practicing it until one becomes an expert user of it. It can never be acquired by reading books on it.

By Hathib K.K.

## **PRINCIPLE OF IMMERSION**

This principle tells that all the subjects should be taught not only for teaching the content, but also for mastering the target language. By Hathib K.K.

## **PRINCIPLE OF FUNCTIONAL LEARNING**

This principle tells that language can be learnt well through its functional aspects rather than the theoretical rules By Hathib K.K. Natural language acquisition occurs in context natural language is never learned divorced from meaning and content based instruction provides a context for meaningful communication.

## **Integration across the curriculum: personal and pedagogical integration**

An **integrated curriculum** is described as one that connects different areas of study by cutting across subject-matter lines and emphasizing unifying concepts. Integration focuses on making connections for students, allowing them to engage in relevant, meaningful activities that can be connected to real life.

## **Why it is important to integrate curriculum?**

Think about how much we could learn in a classroom where you learn math, science and reading all in one lesson or teaching a theme-based

unit that focuses on cultural diversity and incorporates core content area topics. While teaching an integrated curriculum, students will show higher signs of retention at an increased rate than when an integrated curriculum was not implemented. The reason for this is because they were able to more closely relate to content and make real-world connections in integrated curriculum approaches.

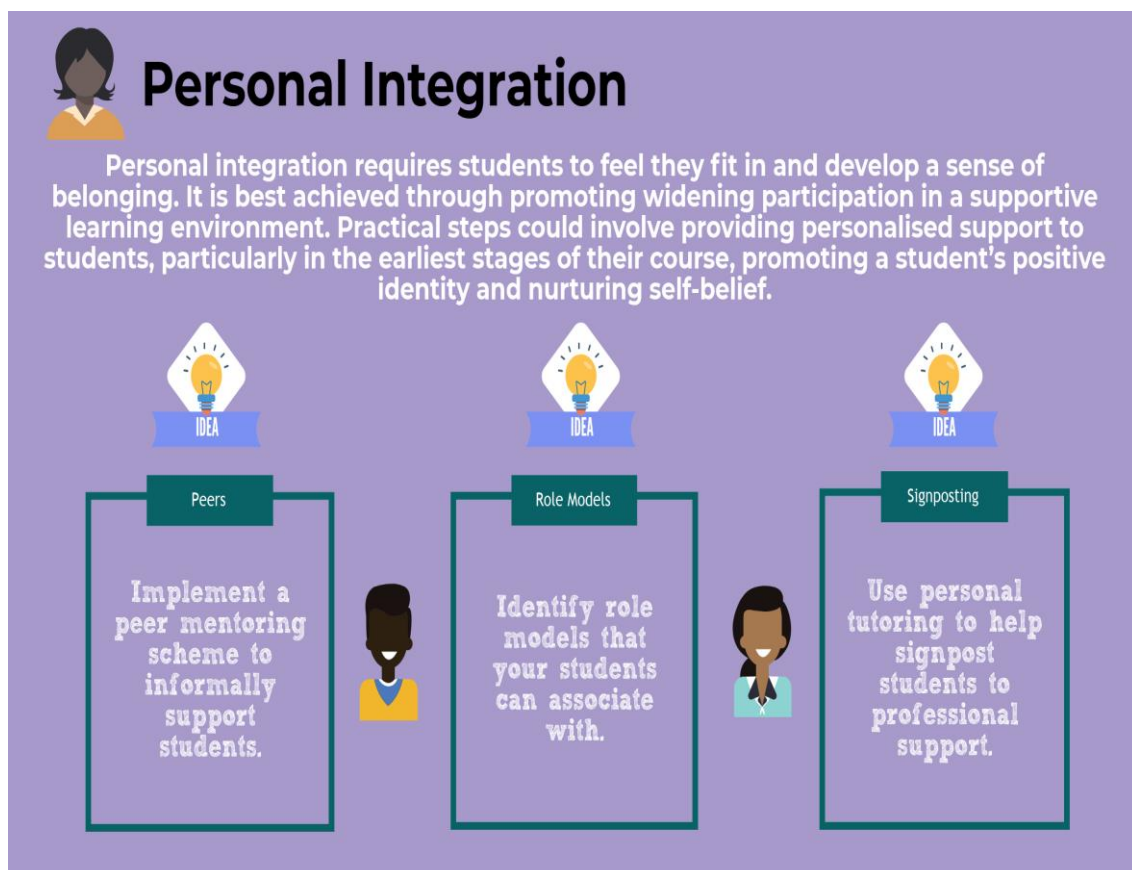
Students not only connect and create more real world connections in integrated classrooms, but they are also more actively engaged. Creating an integrated curriculum means that teachers are charged with having to create challenging, fun, meaningful tasks that help students connect to information. Creating a solar system unit that also requires oral language development and practice, reading comprehension skills and mathematics, can engage students far more than just a lesson on the solar system alone. Integration helps to achieve retention and engagement in classrooms, which yields higher mastery of content standards.

One final key benefit of an integrated curriculum is the ability for students to see skills multiple times. Instead of teaching comprehension strategies in just reading, teaching those strategies across multiple disciplines can give students an opportunity to see and implement it more often. The repetition of the skills being taught creates a higher level of understanding and retention of information for students in the classroom.

### **Personal Integration**

It is the responsibility of the school and the class teacher to ensure that new students, regardless of their background culture, disability or other characteristics are able to fully integrate into the school and into their course curriculum. For the new entrants, they encounter alien atmosphere, procedures, feelings of isolation and lack of positive identity. This can

impact negatively on their academic development. Personal integration can be considered as major part of student-centered curriculum integration. Personal integration aims at developing in students sense of belonging. The curriculum can play an important role in supporting personal integration by promoting greater students participation in different kind of learning activities and that too in positive and inclusive environment. Personal is highly effective during the early stages of school learning, peer mentoring, role models, teachers and family members play an active role during personal integration.



The curriculum can play an important role in supporting personal integration. An inclusive curriculum that relates to a student's personal context and an environment that celebrates diversity underpin personal integration.

## **Pedagogical Integration**

Making sense of the learning process, by placing the learning process within a meaningful context that makes sense to the student in relation to the real-life situations he/she needs to face in life.

Curriculum consists of ‘what’ of education and teaching consists of the ‘how’ the ‘what’ and ‘how’ are inseparable as that the teachers classroom strategies are what transform curriculum from a mere bundle of inert ideas to experiences through which children learn. By suitably modifying the ‘how’ viz teachers classroom strategies, integration across the curriculum could be achieved.

Differential pedagogical strategies are to be employed in the classroom for helping students to acquire

- i) Theoretical knowledge (knowledge of theories and principles learned through classroom lectures and submission of written assignments)
- ii) Practical or procedural knowledge (acquired through active participation in the learning process like observation, experimentation, discussion and collaborative learning etc.,
- iii) Self-regulative knowledge or meta-cognitive knowledge acquired through skills of reflecting on ones own activities
- iv) Sociocultural knowledge (acquired through participation in activities in the community and cultural context like undertaking relevant projects)