

## UNIT -1:

### PEDAGOGICAL ANALYSIS

**Paradigm shift from pedagogy to Andragogy to Heutagogy – Concept and stages - Critical Pedagogy: Meaning, Foster independent thinking through critical pedagogy, Need and its implications in Teacher Education. Interaction Analysis: Flanders’ Interaction analysis, Galloway’s system of interaction analysis (Recording of Classroom Events, Construction and Interpretation of Interaction Matrix).**

#### 1.1 Pedagogy Meaning

Pedagogy comes from the Greek word paidagógia in this word “paidos” means “Child” and “ago” which means “lead”; so, the meaning is “to lead the child”. In olden days, a pedagogue was the slave in charge of taking roman children to everywhere, but particularly to school. Progressively, pedagogue lose its etymological meaning of accompanying a person and by extension; a pedagogue became synonymous of master, teacher or tutor. Currently, even if the word pedagogue refers both meanings, i.e., educator and instructor, it refers also to the manner or method of teaching. The education offered by the pedagogue inclusive. It deals with all aspects namely intellectual, physical, socio-affective, moral, religious, etc A best pedagogue not because he is an intellectual, or a deep thinker, though he may be so, but because he know especially how to deal with his pupils, how to interest them, motivate them, communicate content, knowledge, skills, etc., Finally, we can conclude that pedagogy comprises what teachers do in classroom, but also their ideas, knowledge and attitudes in relation to the learners, the teaching and learning process and the curriculum.

#### 1.2 Andragogy Meaning

The word Andragogy derives from the Greek word means “adult-leading”. Andragogy means to a theory of adult learning that details some of the ways in which adults learn differently than children. For example, adults be more self-directed, self-motivated, and ready to learn. Teachers can draw on concepts of andragogy to increase the effectiveness of their adult education. The andragogy is the combination of Adult Education, Adult Learning and Self-Directed Learning. So, andragogy is the art and science of helping adults learn, and a learner focused approach for people of all ages. Learning through SWAYAM is best example for Andragogy.

#### Assumptions about Andragogy

1. **Self-Concept:** When we get older, our concept of who we are (self-concept) shifts from dependence towards independence and self-direction.

2. **Past learning experience:** As we grow and experience more life, we accumulate knowledge based on this experience that then becomes a more valuable resource for future learning. By the time we are adults, we have an abundance of experience to draw upon across a variety of contexts.
3. **Readiness to learn:** Our readiness to learn becomes more oriented to the developmental tasks of our social and work-related roles.
4. **Practical Reason to learn:** As adults, our perspective changes from one of postponed application of knowledge to immediate application, and as such our orientation shifts from one of subject-centered to one of problem-centered.
5. **Driven by Internal motivation:** As we mature, the motivation to learn is internal

### **Principles of Andragogy:**

**Knowles (1984)** discussed four principles that educators should consider when teaching adults

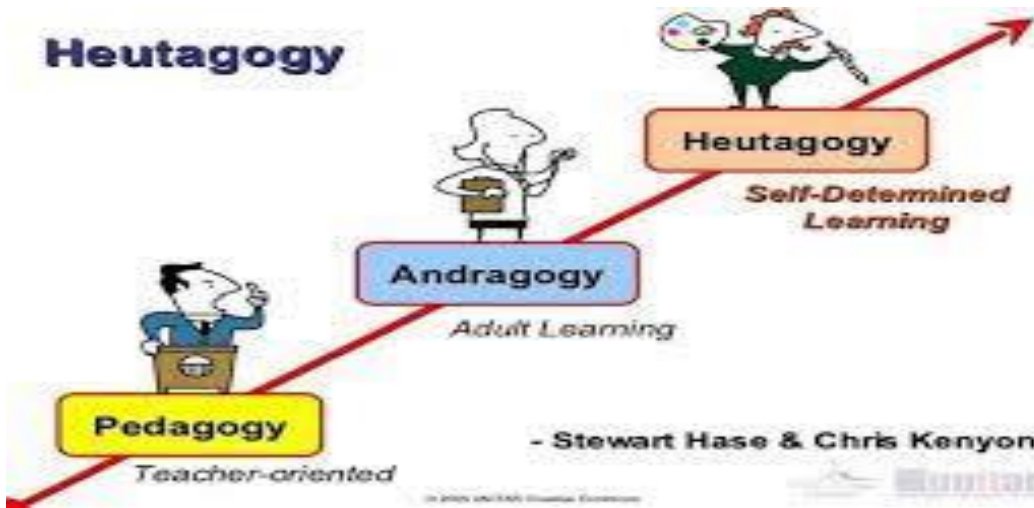
1. The learners are involved in the planning for themselves. They plan courses and evaluation pattern for themselves.
2. Mistakes and Positive Experience gives the strong feedback for their learning activities.
3. Learners are very much interested in learning subjects that have real time problems.
4. Learner's learning is problem-centered and not content-oriented.

On the whole Andragogy emphasis on Self-directed approach in the adults.

### **Nature of Andragogy**

- Mainly Correlated with adult learning.
- It is mainly problem-centered.
- Teaching methods are specific and special for the learners.
- Maximum content is included which is Immediate application in our life.
- The syllabus framed Based on their experience.
- Mainly focused on Personal learning.
- The learners learn according to their self-speed.

So, it is self-paced learning.



### Pedagogy and Andragogy

Pedagogy	Andragogy
Learner is dependent on the teacher.	Learner depending on self.
The teacher is one who evaluate the progress.	The method requires selfevaluation and direction and self-take responsibilities.
Learners comes with little life experience.	Learner uses life experience as a foundation.
Students pass on to the next stage once they have completed the necessary steps.	Learning is triggered by any number of life experience and not necessarily led by designated instructor
Learning is proscribed by the instructed and sequenced in a way that makes logical sense.	Learning is proscribed by self.
Learners are motivated by external sources, such as parents and teachers.	Learners are motivated intrinsic means: self-esteem, quality of life and problem solving.

### 1.3 Heutagogy

Heutagogy (based on the Greek for “self”) was defined by Hase and Kenyon in 2000 as the study of self-determined learning. It is the highest level of learning. Heutagogy applies a holistic approach to developing learner capabilities, with learning as an active and proactive process, and learners serving as “the major agent in their own learning, which occurs as a result of personal experiences”. As in an andragogical approach, in heutagogy the instructor also facilitates the learning process by providing guidance and resources, but fully give up ownership of the learning path and process to the learner.

## Characteristics

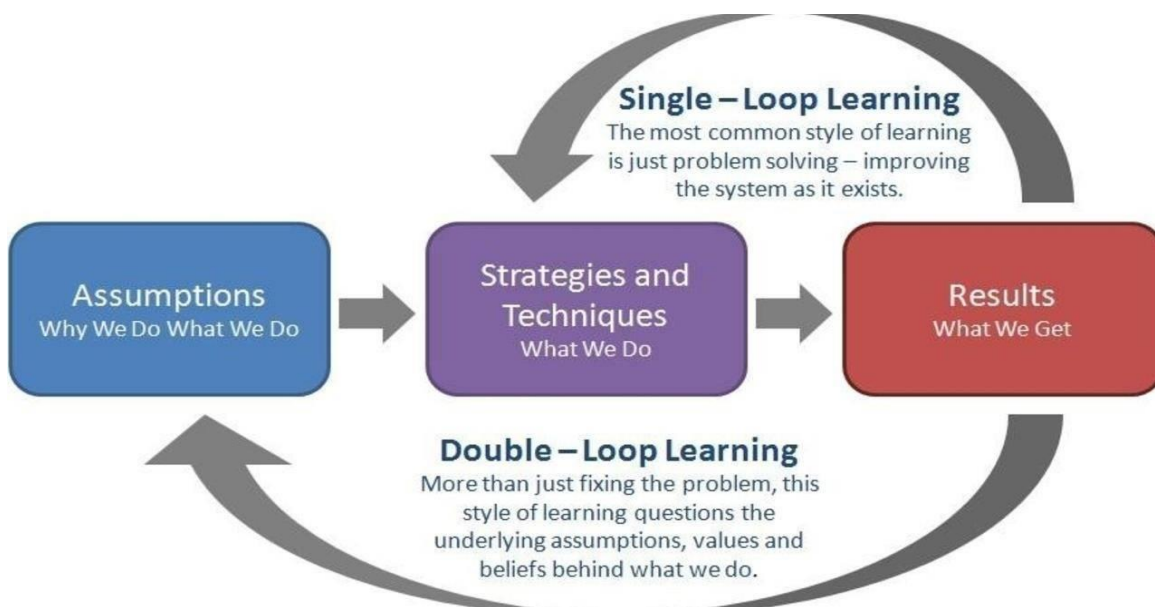
Heutagoical approaches encourage the students to find their own problems and questions to answer. Instead of simply completing the tasks teachers assign, these students seek out areas of uncertainty and complexity in the subjects they study.

Teachers help by providing context to student's learning and creating opportunities for them to explore subjects fully. Teacher provides the material but students decide how to negotiate the learning process. The purpose is to establish an environment where learners can be determining their own goals, learning paths, process and product. Emphasis is placed on development of learner's capability.

The heutagical approach is a progression from pedagogy to andragogy to heutagogy with learners likewise progressing in maturity and autonomy. More mature learners require less instruction and course structure and can be more self-directed in their learning. In heutagogy, it is the learner who sets the learning course, designs and develops his own map of learning from curriculum to assessment.

## Principles of Heutagogy

- Knowing how to learn is a crucial skill.
- Educators focus on learning process rather than content.
- Learning goes beyond the specific discipline.
- Learning occurs through self-chosen and self-directive action.



In double learning, learners consider the problems and the resulting actions and outcomes. In addition to it, there is reflection upon the problem-solving process and how it influences learner's own belief and actions.

Double loop learning occurs when learners reflect upon and question one’s personal values and assumptions as being central to enhancing learning how to learn. Heutagogy has its principles and practices rooted in andragogy.

### Heutagogy and Andragogy

Andragogy	Heutagogy
Double loop learning	Single loop Learning
Capability development	Competency Development
Non-linear design and Non-linear approach	Linear design and Linear approach
Learner directed	Instructor and Learner directed
Getting students to understand how they learn	Getting students to learn

#### PEDAGOGY

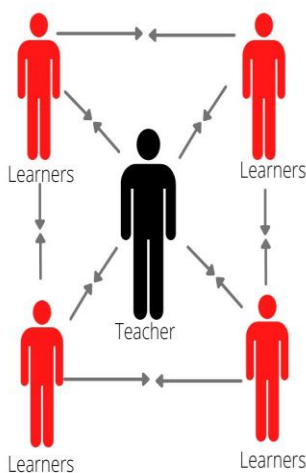
Teacher-Led Learning



Unidirectional transfer of knowledge/information/content  
**J.F. HERBART (1776-1841)**

#### ANDRAGOGY

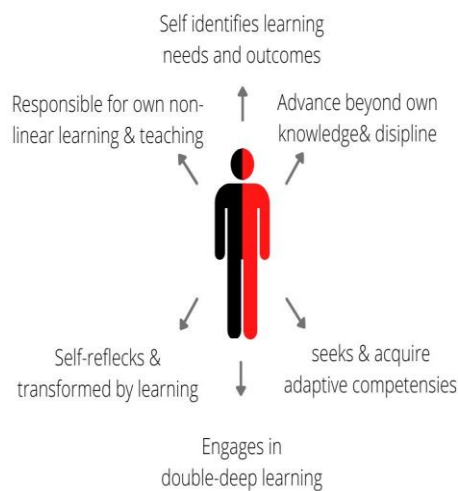
Self-Directed Learning



Bi/Multidirectional transfer and co-construction of knowledge  
**MALCOLM KNOWLES (1970)**

#### HEUTAGOGY

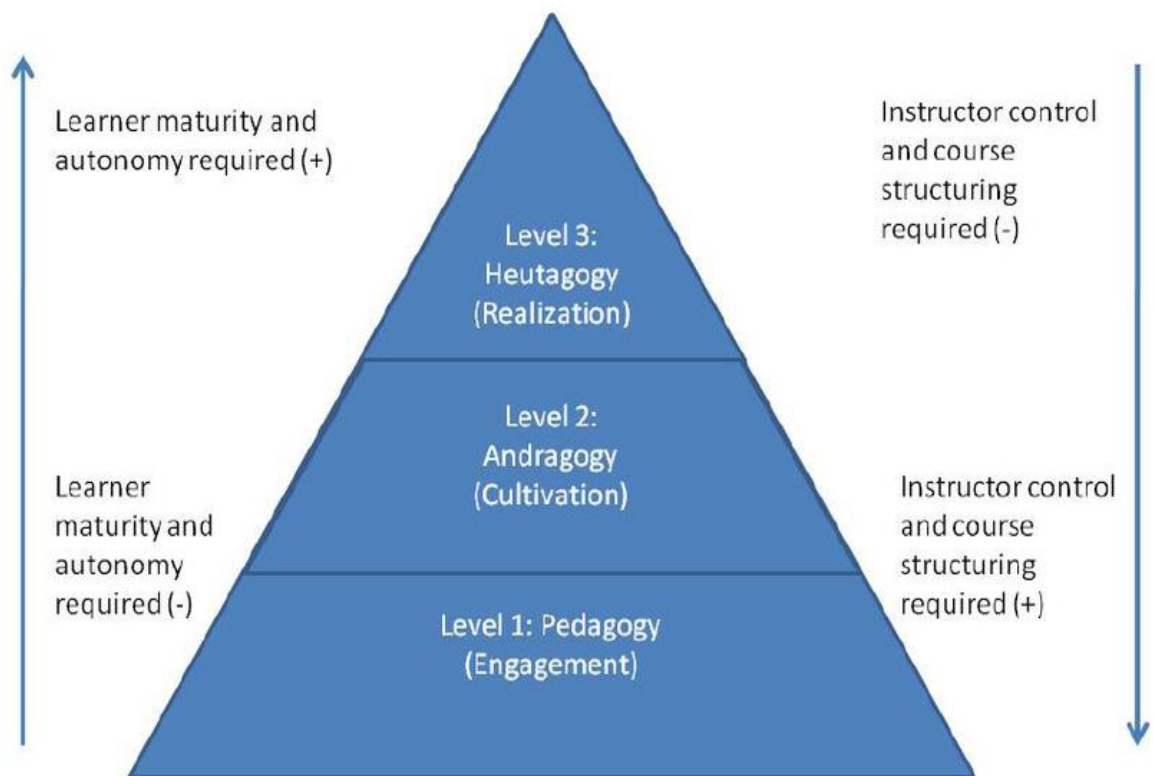
Self-Determined Learning  
 Learner-Centred Learning



Teacher is Learner  
 Learner is Teacher  
**HASE & KENYON (2020)**

### Pedagogy, Andragogy and Heutagogy

Pedagogy	Andragogy	Heutagogy
Instructor Led	Self-Regulated and Self Directed	Self-Determined
Instructor is the center	Instructor and learners are center	Learners only center
The process is mostly unidirectional	The process is bidirectional	The process is multi directional
Learner contribution is limited.	Learners contribute	Learners contribute and create
Mostly witnessed in school environment.	Mostly witnessed in adult learning.	Mostly witnessed in research environment.
Cognition	Meta-cognition	Epistemic- cognition
Child leading	Man leading	Self-leading



## **1.4 Critical Pedagogy**

The main aim of teaching is to promote the critical thinking capacity of students and thus, to create good citizens for a just society. Classroom teaching must also awaken the values of justice and equality in student minds.

Critical pedagogy is a vital teaching strategy, one designed to strengthen the awareness of learners about social equality, while improving their knowledge. But nowadays teachers prepare the student for scoring high marks in the examination. Due to this reason, teaching is most often test oriented rather than knowledge oriented. The center of the curriculum used the fundamental goal based on social and political criticisms of everyday life.

The educationist required implementation of range of educational causes with the goal of creating not only a better learning environment. But also, a better world. Students should think critically about the educational situation. It must be a recognised connections between the individual problems and which they are embedded.

Critical pedagogy is an effective method to develop the critical thinking ability of students and to create positive behavioural change in students' lives. According to Freire critical pedagogy defined as a "critical approach to education, highlighting the importance of having learners engage actively in their learning process, and being able to find and develop their own opinion and position". Kaya and Kaya states that critical pedagogy is a concept that addressed the problem of education and the education system itself.

The purpose of critical pedagogy is to signal how question of audience voices, power and evaluation can actively work to construct schools into an environment where teachers and students can question the relationship between theory and practice, critical analysis and common sense, learning and social change.

Critical pedagogy is a relationship between teaching and learning. It takes shape in the classroom as a dialogue where teacher and students collaborate and investigate everyday topics, academic content, and social issues. Students become active agents of their own learning through guided dialogue carefully crafted into critical and democratic problem-posing frameworks for getting beneath the surface of public and private concerns of conditions for the production of knowledge, values, beliefs, and skills.

## **1.5 Interaction Analysis**

Interaction Analysis is a tool used in the classroom to capture quantitative and qualitative aspects of verbal instructor behaviour. It captures the verbal behaviour of teachers and students as an observational device that is directly linked to the social-emotional environment of the classroom.

The interaction analysis is using a system of categories to encode and quantifies classroom behaviour of teacher and student. The main purpose of interaction analysis is that a teacher can be trained to use them for analysing classroom behaviour and for studying teachers own teaching activities.

Interaction analysis is a process of encoding and decoding the study pattern of teaching and Learning. Coding process means, a code symbol is allocated to each category and a trained observer records by marking down code symbols. Decoding step, a trained analyst explains the display of coded data and reconstruct the original events on the basis of the encoded data even though he may not have been present when the data were collected. The teacher should be familiar with the interaction analysis encoding and decoding process.

The classroom teaching of teacher's trainees is studied through interaction analyses during teaching training programme. The classroom observation sheet should be given to the teacher concerned and the matrix table should be prepared for him to decipher his own behaviour. The process of decoding provides him with own educational and behavioural components.

### **Characteristics of Interaction Analysis**

1. The verbal interaction of the classroom can be made more effective and interesting.
2. Students' participation can be increased.
3. The teacher will turn his direct actions into indirect conduct.
4. The innovative behaviour, understanding and exercise of interaction modes can be established.
5. This interaction analysis can be used with microteaching.

### **Theoretical Assumptions of Interaction Analysis**

The various theoretical assumptions, which are basic to idea of interaction analysis, are as follows;

1. In the classroom the verbal communication is predominant.
2. Verbal behaviour of teacher can be observed with higher reliability than most non-verbal behaviour.
3. The verbal statement of a teacher is consistent with his non-verbal gestures.
4. The teacher deploys a great deal of influence on the student.
5. The relation between student and teacher is very important in the teaching learning process.
6. It has been proved that social climate is related to productivity and to the quality of interpersonal relations.
7. The relation between classroom climate and learning is very important.



8. In the classroom teacher's verbal behaviour can be observed objectively using the observation technique.
9. According to feedback the teacher can Change his behaviour.
10. Teacher influence is expressed primarily through verbal statements.

### **1.6 Flander's Interaction Analysis**

Ned. A. Flanders developed a system of interaction analysis to study about classroom interaction in a classroom when a teacher teaches. It is known as Flanders Interaction Analysis Categories System (FIACS). Flanders and others developed this system at the University of Minnesota, U.S.A. between 1955 and 1960. Flanders classified total verbal behaviour into 10 categories. Verbal behaviour comprises teacher talk, student talk and silence or confusion.

#### **The ten categories are mentioned as under**

1. Teacher Talk – 7 categories
2. Pupil Talk – 2 categories
3. Silence or Confusion- 1 category

Thus, the first seven categories include teacher talk. Next two categories include Students' talk. The last tenth category includes the small spans of silence or pause or confusion.

The first 7 categories have been classified into

- a) indirect talk
- b) direct talk.

#### **Teacher's Talk**

##### Indirect Talk

1. Accepts Feelings
2. Praise or Encouragement
3. Accepts or Uses ideas of Pupils
4. Asking Questions

##### Direct Talk

5. Lecture
6. Giving Directions
7. Criticizing or Justifying Authority

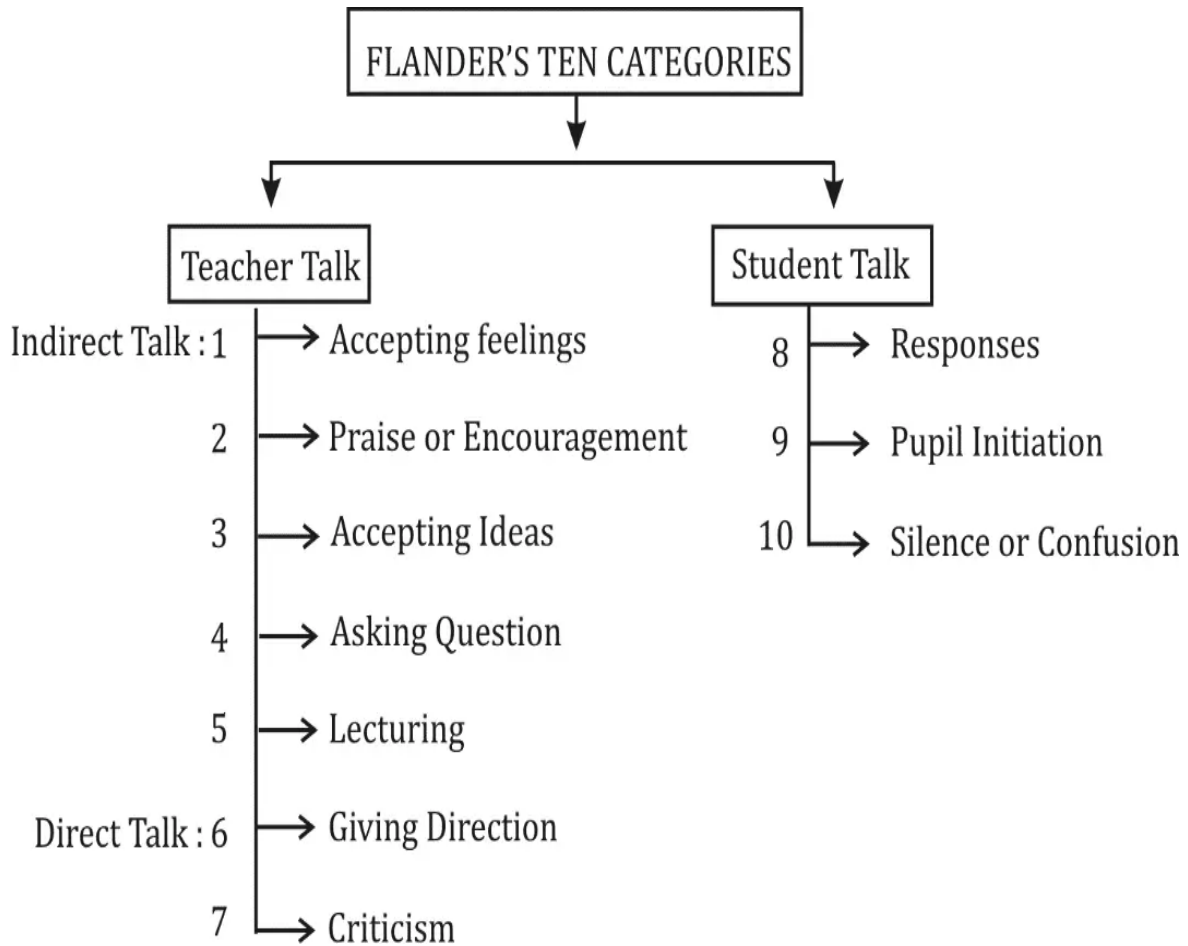
##### Student Talk

8. Student Talk Response

9. Student Talk Initiation

Neither Teacher Talk nor Pupil Talk

Silence or Pause or Confusion



		Category Number	Activity
Teacher Talk	Indirect Influence	1. Accept Feeling	Teacher Accepts feeling of student. Feeling may be positive or negative. Predicting and recalling feelings are included.
		2 Praise or encourage	Teacher praises or encourages students' action or behaviour. Jokes that may release tension, but not at the expense of another individual. The teacher gives positive reinforcement by using the words like "Good", "Very Good", "Excellent".
		3. Accepts or uses ideas of students	It is just like 1st category. But in this category, the students' ideas are accepted only and not his feelings.If a student says on some suggestions, then the teacher may repeat in important point in his own style or words.The teacher develops ideas or suggestions given by a student.
		4. Ask Questions	Asking question about content or procedures, based on the teacher ideas and expecting an answer from the student.
	Direct Influence	5. Lecturing	Giving facts or opinions about content or procedure expression of his own ideas, giving his own explanation or citing an authority other than a pupil.

		6. Giving Direction	The teacher gives directions, commands or orders or initiation, with which a pupil/student is expected to comply with, -Take down the notes -Open your books. - Stand up on the benches.
		7.Criticizes	When the teacher asks the pupils not to interrupt with foolish questions, then this behaviour is included in this category. Teacher's ask "what" and "Why" comes under this category.
Students Talk		8.Students' Response	It includes the student talk in response to teacher's talk. Teacher asks question, student gives answer to the question.
		9.Students' Talk Initiation	Talk by student that they initiate.Expressing own ideas; initiating a new topic; freedom to develop opinions and a line of thought like asking thoughtful questions; going beyond the existing structure.
Silence		10. Silence	Pauses, short periods of silence and period of confusion in which communication cannot be understood by the observer.

## **Encoding Procedure**

1. The observer is to memorize the code Numbers, in relation to key words which are indicated in ten category system.
2. The observer sits in the classroom in the best position to hear and see the participants.
3. At the end of every three seconds, he decides which category best represents the communication events just completed. Thus, the time involves in coding one tally for every 3 seconds, is 20 tallies in one minute. For example, when teachers accept students, feelings put 1, When class is silent without any communication puts 10.
4. In this process only the serial numbers of the categories are recorded.
5. When the observation is completed, the observer shifts to some other room and prepares the details on the basis of those serial numbers of the categories.
6. In this observation process, the writing of serial numbers of the categories is called as ENCODING.
7. Writing details of behaviour on the basis of these categories is called as DECODING.

## **Rules for encoding observation**

Flander's category method has many rules for observation, without following which the observation is not possible. The observer must recall these rules. These rules help in maintaining stability and making observations uniform. These rules are as follows:

### **Rule 1**

If more than one type of category occurs during a time interval period, the observer should choose the category that is numerically farther from category 5. Suppose the observer is in doubt whether the category is 1 or 3; he should write 1 category.

### **Rule 2**

If more than one category is active in the time interval, and then all the categories should be recorded. If after the first-time interval, no category changes, then the same serial number should be repeated in the next time interval also.

### **Rule 3**

When teacher calls a child by name, the observer is should be record in 4th category.

#### **Rule 4**

When the teacher repeats the student's answer and the answer is a correct, that is recorded as a category No. 2. This tells the student that he has the right answer and therefore functions as praise or encouragement.

#### **Rule 5**

When a teacher listens to a pupil and accepts his ideas for a discussion, then this behaviour belongs to category No. 3.

#### **Rule 6**

If the teacher's behaviour has been consistently direct or consistently indirect, do not shift into an opposite classification unless a clear indication of shift is given by the teacher. This rule is often called the rule of the biased, unbiased observer.

#### **Rule 7**

If a teacher jokes without aiming at any pupil, this behaviour belongs to the category No. 2. But if he makes any joke aiming at some particular pupil, then it belongs to the category No. 7.

#### **Rule 8**

When all the pupils respond to a very small question collectively, then the serial number of category-8 is recorded.

#### **Rule 9**

The observer must not concern with his own biases or with the teacher's aim. If the teacher attempts to be clever, student see his statements as criticism of students; the observer appeal category 7, rather than category 2.

#### **Decoding Process**

When encoding the classroom events into ten category system 10X10 matrix table is prepared for decoding the classroom verbal behaviour. The generalized order of the pupil-teacher interaction can be estimated in this matrix table. We can identify the pair of categories through the table. The first number in the pair indicates the row and the second number shows the column for example (6-3) pair would be shown by a tally in the cell formed by row 6 and column 3. Example for coding is follows:  
7,8,9,6,5,1,3,2,4,3,2,4,6,8

## Tabulating Matrix

To Tabulate the observations in a 10 X 10 matrix. The convention is to add 10 to the beginning and end of the observation. So, our earlier series now become 10,7,8,9,6,5,1,3,2,4,3,2,4,6,8,10. The data now entered in a 10 X 10 matrix so that the sum of column one equals the sum of row one, the sum of column 2 equals the sum of row 2.etc., If N number of entries marked then N+1 number of pairs will be available.

	1	2	3	4	5	6	7	8	9	10	Total
1			1								1
2				11							2
3		11									2
4			1			1					2
5	1										1
6					1			1			2
7								1			1
8									1	1	2
9						1					1
10							1				1
Total	1	2	2	2	1	2	1	2	1	1	15

## The Proportion of Teacher Talk

The Proportion of Teacher Talk can be calculated by the given formula.

Proportion of Teacher Talk = (Sum of the numbers in the First Seven rows or Columns/N) X 100

We can calculate from our matrix.

$$\text{Proportion of Teacher Talk} = (11/15) \times 100 = 73.33 \%$$

## The Proportion of Student Talk

The Proportion of Student Talk can be calculated by the given formula.

Proportion of Student Talk = (sum of the number in the 8th and 9th column or 8th and 9th Row)/N X 100

Proportion of Student Talk = (03/15) X 100 = 20%.

### Silence Ratio

The Silence Ratio can be calculated by the given formula.

$$\text{Silence Ratio} = (\text{Frequency of the 10th Column or Row} / N) \times 100 = (1/15) \times 100 = 6.66\%$$

### The Ratio Between Indirect and Direct Influence

Indirect and Direct Ratio = (Sum of the Frequencies of the column 1,2,3 and 4 / Sum of the frequencies of the column 5,6 and 7) =  $07/04 = 1.75$

**The ratio is 1 or more than 1 then the teacher is said to be indirect in his behaviour.**

In the above calculation the teacher has more indirect behaviour.

### Ratio between Positive and Negative Reinforcement

Ratio between positive and negative reinforcement can be calculated by the given formula.

Ratio between Positive and Negative Reinforcement = (Sum of the frequencies of the column 1,2,3 / Sum of the frequencies 6 and 7) =  $05/03 = 1.66$

**If the ratio is more than one then the teacher is said to be good.**

### Students Participation Ratio

The student's participation ration can be calculated by the given formula.

$$\text{Students Participation Ratio} = (\text{Sum of columns 8 and 9} / \text{Total Sum}) = 03/15 = 0.2$$

### Students Study State Ratio

	1	2	3	4	5	6	7	8	9	10	Total
1	1,1										
2		2,2									
3			3,3								
4				4,4							
5					5,5						
6						6,6					
7							7,7				
8								8,8			
9									9,9		
10										10,10	
Total											

If the diagonal cells are fully marked it shows that the teacher remains in a particular category for more than three seconds. The cell with the highest frequency of the entire matrix is typically the 5-5 cell which lies on this diagonal indicating that the teacher frequently stays longer than 3 seconds when he provides information through lecture.

**Content cross cell**

Content Cross Ratio = (Total frequencies in the 4th and 5th rows and columns /N) X100 = (3/15)X100 = 20%

**Constructive integration cells and vicious cells**

	1	2	3	4	5	6	7	8	9	10	Total
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
Total											

Constructive Integrative Cells corresponding to 1,2 and 3 are known as constructive integration cells. Vicious cells corresponding to Vicious Cells. These cells reveal the teacher’s attention to problems of classroom management and control as distinct from concern with the subjectmatter.

**Advantages of Flander’s Interaction Analysis**

1. It is an effective tool to measure the socialemotional climate in the classroom.
2. It is also used for Student teacher feedback.
3. It provides feedback to the faculty development participant teachers.
4. It is a reliable method for observation of classroom teaching.
5. It is much useful in team teaching and microteaching.
6. Different matrices may be created and used to compare teachers' behaviour at various levels of age, gender, subject matter, etc.
7. It is an efficient instrument in the classroom to evaluate the social-emotional environment



## **Limitations of Flander's Interaction Analysis**

1. It consumes much time in preparing 10 x 10 matrix without which, interpretation is not possible.
2. The observers have to be trained in order to code correctly.
3. Classroom interaction of pupil-pupil type is not considered here.
4. The system of coding and decoding procedure very difficult and expensive.
5. The totality of the classroom activity is not defined by the method. Some acts are still ignored and that is to say that the unrecorded elements of the teaching act are more relevant than those registered.
6. Efforts to characterise teaching are sometimes viewed as measuring the act of teaching and the teacher. Although descriptions can be used as an assessment basis, decision can only be taken after additional value assumptions have been defined and applied to data.
7. It is expensive and tedious and requires some form of automation to collect and analyse raw information.

## **1.7 Galloway's Interaction Analysis**

This system of Interaction Analysis was developed by Charles Galloway in the form of a teachers' training technique. It is basically a category type system involving categorization of all sets of possible verbal and non-verbal behaviour of a teacher in the classroom while interacting with the students.

In total there are ten categories of verbal behaviour and ten categories of non-verbal behaviour. These are divided into three major sections:

1. Teacher talk
2. Student Talk
3. Silence and Confusion

In this system connection to the non-verbal signs is given along with the verbal behaviour, as the teachers do pass information to students through non-verbal signs. These signs can be either spontaneous and facilitate any effort to understand others and to be understood. Since, the teacher is the important person in the classroom and his behaviour is one of the most important factor in producing communication and continuous interactions. Thus, this system provides a special approach to a more complete analysis of interaction in the classroom as it is combination of both verbal non-verbal dimensions of teacher behaviour.

This method of interaction is named as IDER system. That means

I-Indirect Verbal Interaction

D-Direct Verbal Interaction

E- Encouraging Non-verbal Interaction

R- Restricting Non-Verbal Interaction

### STEPS OF GALLOWAY'S SYSTEM OF INTERACTION ANALYSIS

1. Recording of classroom events

2. Construction of interaction matrix

3. Interpretation on interaction matrix

#### Assumptions in the System

1. Non-verbal communication of a teacher does, has a remarkable part in the classroom interaction.
2. As one cannot see when he behaves, so, feedback is necessary for the behaviour.
3. The Non-verbal signals are essential and important, as they can reinforce and helpful to motivate the student.
4. Non-verbal communication can be more powerful during interaction in the classroom.
5. If One can aware of non-verbal incidents occurring around, then he can get a better understand of himself.
6. To enhance the aspect of non-verbal communication among teachers, the training will play the vital role.
7. The system is based upon the theory of modification of the teacher's behaviour.

#### Characteristics of the Galloway's Interaction Analysis

1. If we give correct feedback, teachers can change their verbal or non-verbal behaviour.
2. It helps in describing direct and indirect influence in teaching behaviour.

3. Importance is given on both verbal and non-verbal behaviour.
4. It is analysis of initiative and response of a teacher.
5. It is very much used in research in teaching

### **Category wise verbal and Non-verbal Behaviour Recording of Classroom Events**

The observer chooses a correct position in class to listen and watch smoothly. He must to be trained, must memorize the code number and letter. The observer marks the slash / (for encouraging) and dash (Restricting) to the right of recorded tallies for e.g. During lecturing when non-verbal behaviour also appear the observer writes s/ if non-verbal behaviour does not appear “S- “. A critical number is used to denote purely non-verbal behaviour e.g.(S). Then note down code within every 3 seconds. For example, a teacher is praising observer marks as 2 when lecturing writes S. Mark 20 observations per Minute.

### **Construction of Interaction Matrix**

#### **Decoding Process**

Verbal and non-verbal behaviour of the systems for the 20 X20 matrix table is used. According to Dr.R.A.Sharma “There are 400 cells in this Table. Each section displays the order flow of the two actions. Two classes, the two volumes are considering the teacher to evaluate the behaviour of the flow.

It also explains how the matrix is followed by action. This table displays the aural section of sustainability practices. This table is prepared on the basis of inspection class system. The verbal and nonverbal sections separated pairs are depicted in the table of frequency.

The frequencies listed in the table above procedure IDER table is crafted pieces. The IDER table is classified into four parts and components of the practice is to calculate the percentage.

If you need a qualitative analysis ‘flow-chart’ is made on the basis of the qualitative analysis is the study of teacher practices.

To interpret data provided by the IDER matrix, it is necessary to know that numbers from 1 through 10 represent Flanders verbal categories when these are accompanied by encouraging nonverbal cues. Numbers from 11through 20 represent the same categories accompanied by restricting nonverbal expressions.

Quadrant one of the matrixes provides data regarding verbal behaviours consistently accompanied by encouraging nonverbal cues. Quadrant three of the matrix supplies data regarding verbal behaviours consistently accompanied by restricting nonverbal expressions, and Quadrants two and four provide insight into patterns of behavioural transition.

## Advantages

1. Modification of behaviour can be done through continuous feedback.
2. Give opportunity to a teacher to improve upon its Non-verbal behaviour.
3. It is reliable technique of observing and analysing the verbal and non-verbal behaviour of a teacher in class.
4. Its analysis's the pattern of teacher.
5. It is very much useful in research. i.e., to study about usefulness in pre-service and in-service training.

## Limitations

1. Teacher may feel shy to express concept when a supervisor absorbs him.
2. It is very difficult to observe at the same time verbal and Non-verbal behaviour.
3. It could not be properly categorised.
4. It takes more time. So, it is time consuming.
5. It does not describe the total classroom behaviour.
6. Student – Student interaction is not mentioned.
7. The value judgement is not included. Example Good behaviour and Bad Behaviour.

## CATEGORY WISE VERBAL & NON-VERBAL BEHAVIOUR

Category No.	Verbal Behavior	Non-verbal Behavior
1	Accepts feeling	Congruent, Incongruent
2	Praises or encourages	Congruent, Incongruent
3	Accepts or uses ideas of pupils	Implement - Perfunctory
4	Asks questions	Personal - Implement
5	Lecturing	Responsive - Unresponsive
6	Giving directions	Involve - dismiss
7	Criticising or justifying authority	Firm - Harsh
8	Pupil-talk response	Receptive - Inattentive
9	Pupil-talk initiation	Receptive - Inattentive
10	Silence or confusion	Comfort - Distress

		Category Number	Activity			
				Verbal Communication and it's Code and its Representation Code	Desirable Non-Verbal and it's Code	UndesirableNon-Verbal and it's Code
Negative Teacher Talk	Indirect Influence	1	Accept Feeling	Teacher Accepts feeling of student. (1)	Corresponding Smile, Nodding the heads, eye contact and appropriate gesture. (Q)	Corresponding Smile, Nodding the heads, eye contact and appropriate gesture. (A)
		2	Praise or encourage	Teacher praises or encourages students' action or behaviour. (2)	The teacher gives positive reinforcement by using the gestures. (W)	The teacher gives negative reinforcement by using the gesture. (S)

		3	uses ideas of students	Teacher uses student's idea to build the ideas of clarifying. (3)	When in appropriate manner it is said to be implementing. (E)	When in not in correct manner it is mentioned as not possible symbolically. (T)
		4	Ask Questions	Asking question to the student. (4)	When the teacher shows the proper eye contact to the students of proper tone to the particular student. (R)	When the teacher shows the proper eye contact to the students of proper tone to control particular student. (F)
	Direct Influence	5	Lecturing	Giving facts or opinions about content or procedure expression of his	When teacher shows appropriate gesture and body language to the content of the	When teacher shows appropriate gesture and body language to the

				own ideas.(5)	response towards students behaviour. It is said to responsive. (T)	content of the response towards students behaviour. It is said to unresponsive. (G)
		6	Giving Direction	The teacher gives directions, commands or orders or initiation. (6)	When a teacher involves students, wish and appropriate gesture like, yes, smiling.(Y)	When a teacher involves does not obey or wish and appropriate gesture nodding the head as no, like that. (H)
		7	Criticizes	When the teacher asks the pupils not to interrupt with foolish questions,	When the teacher is said to be from when he receives students' response	But he does not accept or stair and in appropriate facial

				then this behaviour is included in this category. (7)	and proper eye contact.(U)	expression it is termed as harsh. (J)
Students Talk		8	Students' Response	It includes the student talk in response to teacher's talk. Teacher asks question, student gives answer to the question. (8)	The corresponding behaviour for category 8 was not taken into consideration. (-)	The corresponding behaviour for category 8 was not taken into consideration. (-)
		9	Initiation	Talk by student that they initiate. Expressing own ideas; initiating a new topic; freedom to develop opinions	Non-verbal does not taken into consideration. (-)	Non-verbal does not taken into consideration. (-)

				and a line of thought like asking thoughtful questions; going beyond the existing structure. (9)		
Silence or confusion		10	Silence or confusion	Pauses, short periods of silence and period of confusion in which communication cannot be understood by the observer. (0)	Not taken into consideration. (ZERO)	Not taken into consideration. (ZERO)

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