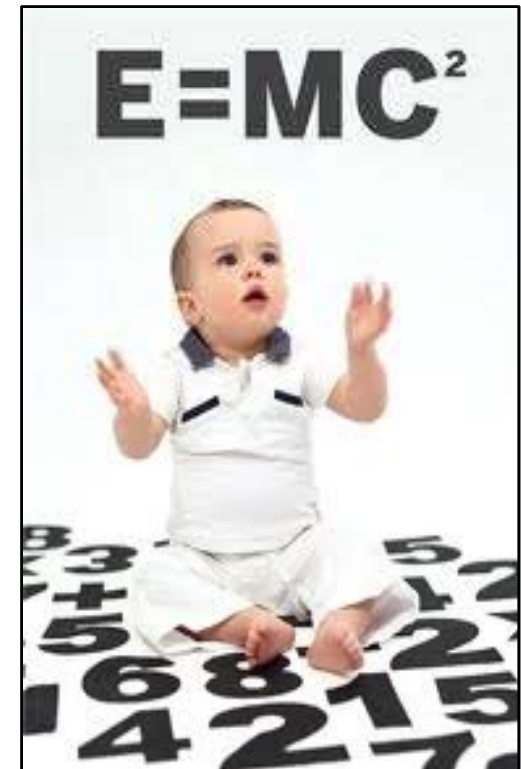


GIFTED

The term **"gifted and talented"** means students, children, or youth who give evidence of high performance capability in areas such as intellectual, creative, artistic, or leadership capacity, or in specific academic fields, and who require services or activities not ordinarily provided by the school in order to fully develop such capabilities."



Six Areas Where we will find Giftedness

- Creative Thinking
- General Intellectual Ability
- Leadership
- Psychomotor
- Specific Academic Ability
- Visual/ Performing Arts



Gifted Students

- are often perfectionist and idealistic.
- may experience heightened sensitivity to their own expectations and those of others.
- may be so far ahead of their chronological age mates that they know half the curriculum before the school year begins!
- are problem solvers.
- often think abstractly and with such complexity that they may need help with concrete study and test-taking skills.
- do well in school may define success as getting an "A" and failure as any grade less than an "A".



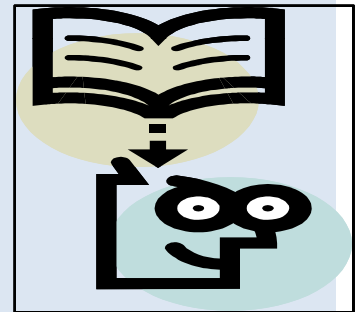
Giftedness



IDENTIFICATION



- The child:
- Has quick accurate recall of information.
- Shows intense curiosity and deeper knowledge than other children.
- Uses advanced vocabulary.
- Reads, writes, or uses numbers in advanced ways.
- Shows unusually intense interest and enjoyment when learning about new things.
- Understands things well enough to teach others.



IDENTIFICATION

- Shows leadership abilities among peers; is responsible.
- Shows logical and metacognitive skills in managing own learning.
- Uses imaginative methods to accomplish tasks.
- Has an advanced sense of humor or sees incongruities as funny.
- Shows relationships among unrelated ideas

INSTRUCTIONAL APPROACHES AND TEACHING STRATEGIES

ENRICHMENT STRATEGIES

Fostering creativity



Problem solving games



Changing location



Enrichment Strategies

Free time activities



Observations



Fine art



INSTRUCTIONAL APPROACHES AND TEACHING STRATEGIES

- Science through literature



- Human resources

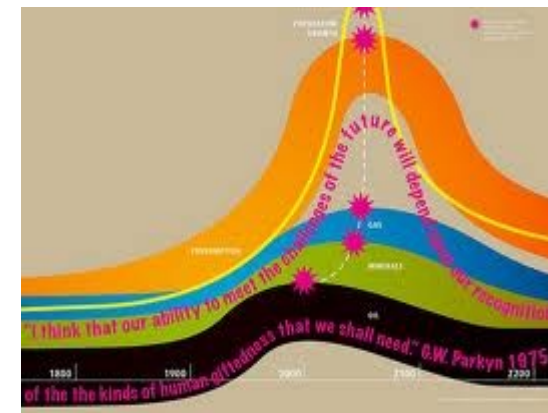
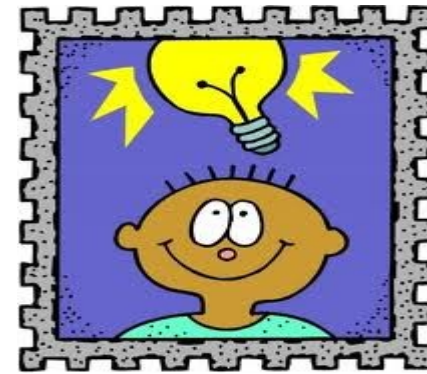
- Dramatics and problem solving



- Research in the real life

ACCELERATION STRATEGIES

- Alternative assignments
- Resources for multiple levels
- A classroom talent pool
- Compacting the curriculum



WHAT EVERY TEACHER SHOULD KNOW

- ❑ These students are known for their potential contributions than any other group of students.
- ❑ They show outstanding performance in cognitive, affective, academic, behavioral, or related areas.
- ❑ Enrichment and acceleration approaches, used by teachers help these students be successful in school and life.
- ❑ Continuing concerns for teachers working with gifted are identification, diversity and the inclusion.
- ❑ These students may also experience problems in school, such as boredom, alienation from peers, pressures to do well in all areas of performance.

VISUAL IMPAIRMENT



Dr. Anita M. Belapurkar

“The term ‘visual impairment’ is used to describe any kind of vision loss, ranging from someone having no sight at all to someone who has partial vision loss. People who are legally blind have some vision, but have lost enough sight that it requires them to stand 20 feet from an object to see it as well as someone with perfect vision who could see it 20 feet away.”

SIGNS OF VISUAL IMPAIRMENT

No.	Signs	Yes	No1
1	• not looking at others in the eyes		
2	• reaching in front of or beyond what the child want		
3	• holding objects very close or very far to see them		
4	• turning or tilting his head when he uses his eyes		
5	• looking above, below or off to one side of an object, rather than directly at it		
6	• bumping into objects and having a lot or trouble seeing at night		
7	• feeling for objects on the ground instead of looking with her eye		

Identifying Special Needs Children Among School Age Children Visually Impaired

NO	SYMPTOMS	YES/NO
1	Does the child have difficulty in counting the finger of an outstretched hand at a distance of one meter?	
2	Does the child move his / her head towards the source of light?	
3	Does the child rub his / her eyes frequently?	
4	The child keeps the book too far / too closes to his / her eyes while reading?	
5	Does the child frequently ask other children while taking down the notes from the blackboard?	
6	Does the child list against objects on the side?	

NO	SYMPTOMS	YES/NO
7	The child has difficulty in reading from the black board, even if she is sitting in the first row?	
8	The child is not able to identify / match colors?	
9	Does the child having abnormal structure of eyes (bulging / too big / too small)?	
10	Does the child get water frequently form his / her?	
11	The child has problem in following the moving objects?	
12	Lighting variations in the environment confuse the child?	
13	The child blinking eyes very often?	
14	The child find difficult to identify objects / people at distance 4-5 meters or further?	

Assisting Students With Visual Impairments



Orientation and Mobility Aids

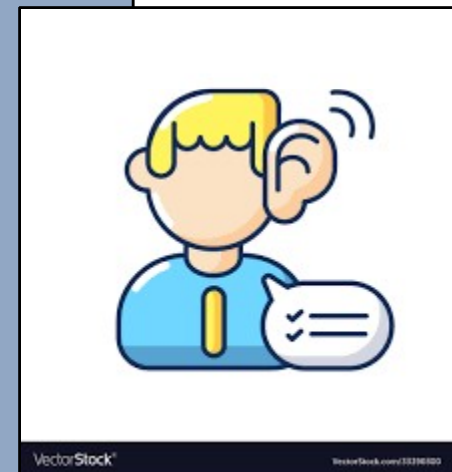
Orientation is a mental map of the surroundings and mobility aids are the devices that help them to move, like canes, sighted person etc.



Listening Skills Training

Students with visual impairments can be trained in following listening skills to make up for communication problems,

- Focusing on a single sound source
- Analyzing oral information
- Focusing on key sound sources



Braille

Braille is the communication system that uses raised dots on paper so people that are blind or with low vision can read text by feeling it.



Audio Aids



People with visual impairments can hear what other people can read. Talking books, talking calculators, and devices that compress speech to speed it up and eliminate natural pauses are audio aids that help Students with visual impairments.



Enhanced image devices

Many students with visual impairments learn to read using traditional methods with enlarged print. Closed circuit television systems with a small **camera** and zoom lens, overhead projectors, microcomputers, and other specialized equipment are used to enlarge text so that it is easier for these students to read.



Optical character recognition devices



Some students with visual impairments use a computer based scanning device (e.g. Kurzweil Personal Reader) that converts printed words into synthetic speech. They even include small sensors that can be attached to microcomputers to help people who are blind or those with low vision from the printed text.

From birth until they reach age 22, children who receive special education services have either an Individualized Family Service Plan (IFSP) or an Individualized Education Program (IEP). It's important that parents take an active part in developing the IFSP or IEP for their child. They will probably find that understanding the law that sets out what is included in an IFSP or an IEP will be very helpful.

Name: - Prof. Mumtaz Shaikh

Course Name: - B.Ed 107- 05: Pedagogy of Urdu

زبان کی مہارتیں

سماج میں زبان کی مہارتوں پر خصوصی توجہ دینا ضروری ہے۔ طلبہ کی ہمہ جہت نشوونما کے ان مختلف مہارتوں کو سکھانا ضروری ہے۔ طلبہ روزمرہ زندگی کے تجربات مختلف مہارتوں کے ذریعے ہی سیکھتے ہیں، سمجھتے ہیں۔ کسی بھی زبان کہ مکمل طور پر سیکھنے کے لیے چار بنیادی مہارتیں سیکھنا ضروری ہے۔ جن میں سننا، بولنا، پڑھنا اور لکھنا شامل ہیں۔

مقاصد-

- 1- زبان کی بنیادی مہارتوں سے واقفیت ہوتی ہے۔
 - 2- زبان کی بنیادی مہارتوں کی اہمیت سے واقفیت ہوتی ہے۔
 - 3- زبان کی بنیادی مہارتوں کو سیکھنے کے لیے کی گئی مشاغل سے واقفیت ہوتی ہے۔
- کسی بھی زبان کی استعداد کے لیے بنیادی مہارتوں کا حاصل کرنا بے حد ضروری ہے۔



سننا۔ آہلی بات کو دلچسپی اور غور سے سننا بے حد ضروری ہے۔ جب تک ہم بغور نہیں سنے گے ہم بول ہی نہیں سکتے۔ سننے کی صلاحیت بہتر ہوتی ہے۔ صحیح طریقے سے گفتگو کا علم ہوتا ہے۔ صحیح سننا، صحیح گفتگو اور صحیح تحریر کے لیے مددگار ثابت ہوتا ہے۔ یہ ایک سلسلہ ہے۔ جسمیں سننا یہ پہلا مرحلہ

ہے۔

سننے کی مہارت سے ہم دوران گفتگو آواز کی شناخت کر سکتے ہیں۔ آواز کے فرق کو واضح کر سکتے ہیں۔ انداز بیان کو سمجھ سکتے ہیں۔ معلم طلبہ میں سننے کی مہارت کو فروغ و نشوونما کے لیے بہترین گیت، نظمیں، اسباق کو موثر و مترنم آواز میں سنانا اور یاد کرانی چاہیے۔

بولنا اور اسکی اہمیت۔

بولنے سے مراد گفتگو کرنا ہے۔ صحیح اور بہتر انداز میں اپنے خیالات کو دوسرے تک پہنچانا ہوتا ہے۔ بولنا بھی ایک فن ہے۔ اپنے جذبات، خیالات، احساسات کو ادا کرنا ہی بولنا کہلاتا ہے۔ گفتگو میں منہ اور ہونٹ کا بلنا ضروری ہے۔

بولنے کی مہارت سے طلباء میں مندرجہ ذیل صلاحیتیں نشوونما پاتی ہیں۔

1۔ بہتر انداز میں گفتگو کرنا۔

2۔ روانی و تسلسل کے ساتھ گفتگو کرنا۔

3۔ موقع کی مناسبت سے گفتگو کرنا۔

4۔ انوادہی اسلوب میں گفتگو کرنا۔

طلباء میں بولنے کی مہارت کی نشوونما کے لیے استاد کو چاہیے کہ وہ

(1) طلباء کو کمرہ جماعت میں آزادی کے ساتھ گفتگو کرنے کا موقع فراہم کریں۔

(2) مناسب ماحول اور پس منظر فراہم کرے۔

(3) مختلف نئے الفاظ و محاورے وغیرہ کا استعمال کرنے کا طریقہ سکھائے۔

پڑھنا۔

مطالعہ کرنا یا پڑھنا زبانوانی کی تدریس و درس میں بے حد ضروری ہے۔ بنا مطالعہ کے کسی بھی مہارت کو سکھا نہیں جاسکتا۔

پڑھنے کے فوائد۔

1۔ بہتر انداز میں پڑھے۔

2۔ املا و تلفظ کی ادائیگی صحیح ہوتی ہے۔

3۔ معلومات میں اضافہ ہوتا ہے۔

4۔ خیالات و تصورات میں اضافہ ہوتا ہے۔

5۔ نئے الفاظ، محاورے، قواعد کی معلومات ہوتی ہے۔

پڑھنے کی مہارت کی نشوونما کے لیے استاد کو چاہیے

- (1) مطالعہ خوانی کرنے کی ہدایت کرے۔
- (2) املا کی درستگی کرے۔
- (3) بلند خوانی کو فروغ دے تاکہ تلفظ کی ادائیگی صحیح ہو۔
- (4) بہترین انداز میں مطالعہ کرے۔

لکھنا۔

زبان کی مہارتوں میں آخری مہارت لکھنا ہے۔ لکھنا یعنی تحریر کرنا ہے اپنے خیالات کو بہترین انداز میں تحریر کرنے میں خوش خطی کا اہم عظیم عطیہ ہے۔

لکھنا اس مہارت سے ہم طلباء سے یہ امید کرتے ہیں

1- صحیح لکھنا۔

2- املا کی غلطی نہ کریں۔

3- روانی کے ساتھ لکھے۔

4- بلا خوف و خطر لکھے۔

5- سجداری کے ساتھ لکھے۔

لکھنے کی صلاحیت کو فروغ دینے کے لئے استاد کو چاہیے کہ وہ

(1) طلباء کو لکھنے کی تیاری کروائے۔

(2) طلباء کو لکھنے کی مشق کروائے۔

(3) طلباء کے لکھے ہوئے مواد کی اصلاح کریں۔

(4) طلباء کو خوش دلی کے ساتھ لکھنے کی مشق کروائے۔

(5) طلباء کو اس فن سے لطف اندوز ہونے بہترین مواقع فراہم کریں۔

References

تدریس اردو۔ اختر شیرانی

www.google.com

اردو درس و تدریس۔ قومی کونسل برائے فروغ اردو زبان

E-CONTENT

ASST. PROF. PUSHPA PATIL

What is E-content?



- Electronic content (e-content) which is also known as digital content refers to the content or information delivered over network based electronic devices or that is made available using computer network such as internet

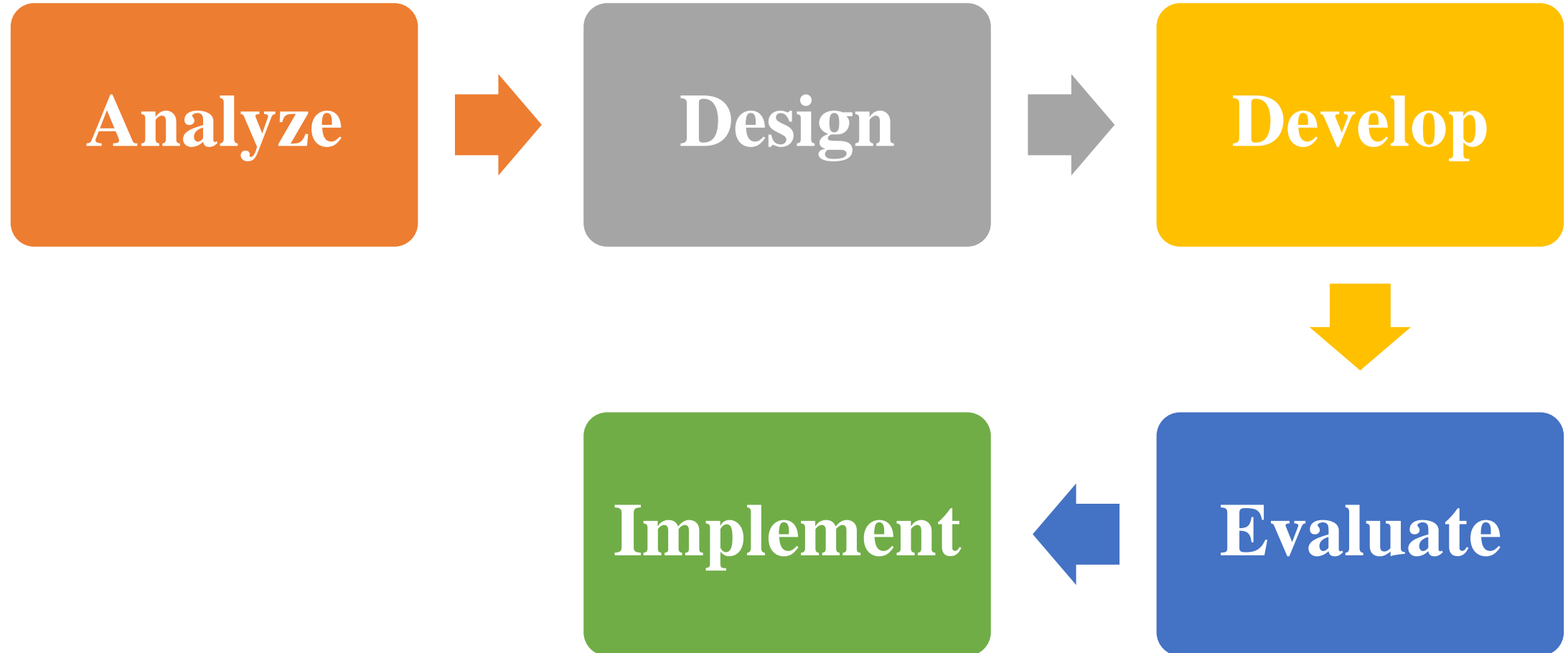
Definition

- According to Oxford dictionary ‘e-content is **the digital text and images designed to display on web pages**’.
- According to Saxena Anurag(2011) ‘E- content is basically a package that satisfies the conditions like **minimization of distance, cost effectiveness, user friendliness and adaptability to local conditions**’

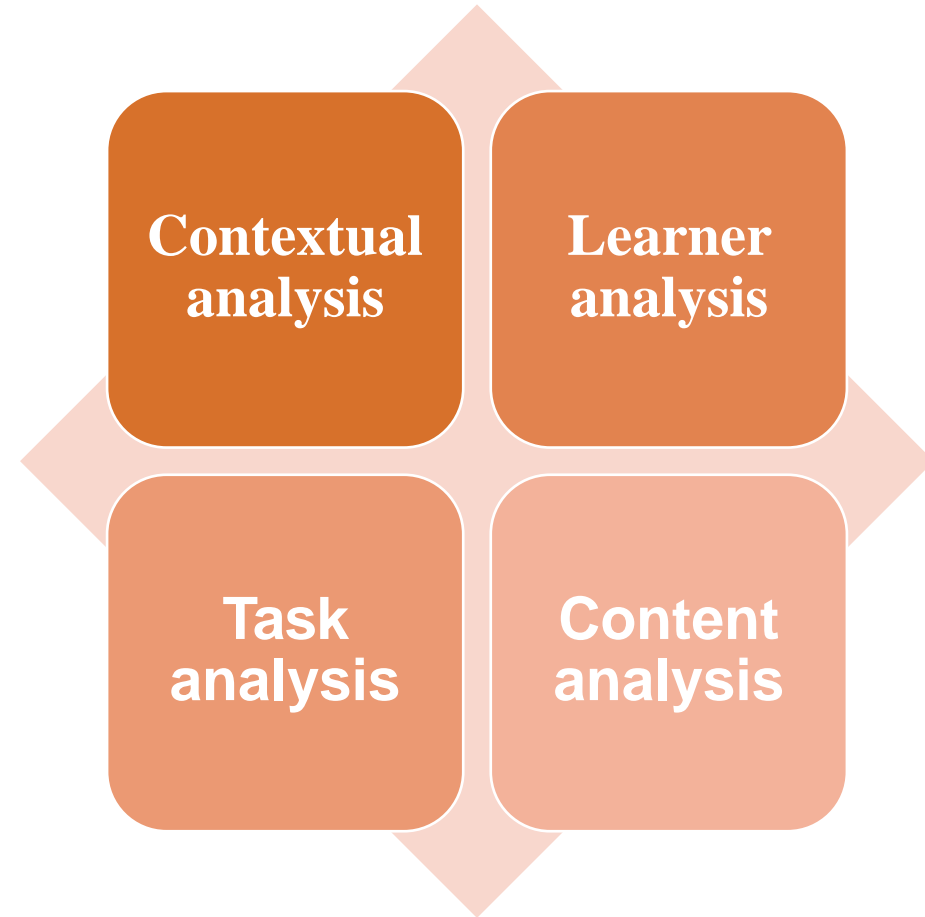
MODEL

- Most common and popular model used for creating instructional materials is the **ADDIE** model.
- This abbreviation stands for the five phases involved in the model. They are **analyze, design, develop, implement and evaluate**.

PHASES OF E CONTENT



ANALYSIS



- **Contextual analysis** is collecting data related to the context of learning such as learning environment. Whether the **e-content developed is for the individual or group, formal or informal, facilitated or self-learning etc.**
- **Learner analysis** is collecting data related to **learners academic levels** and attributes such as skills, motivation, visual literacy, language competency, learning styles etc. That is nothing but preparing the learner profile. It helps to know about the learner.

- **Task analysis** is stating the purposes of developing the e-content. Deciding whether that is developed for **educating, training, creating awareness, developing skills etc.**
- **Content analysis** is nothing but **preparing a content outline**. Good content comprehension is required before designing and developing content. It includes verifying the content with respect to cognitive appropriateness, factual accuracy, completeness etc. **It also includes classifying the content into facts, concepts, principles, processes and procedures.**

Design

- **Design:** It is concerned with **defining the learning objectives**, structuring the content logically, specifying the instructional and evaluation strategies, and preparing for visual and technical design.
- **Learning objectives** are to be defined in clear, realistic and measurable terms. Learning objectives are the statements that describe what the learner will be able to do at the end of the course or program. Learning objectives should specify performance and communicate their purposes. Prepare a detailed content outline in which content is thoroughly analyzed and logically organized. Content is to be structured logically following simple to complex, known to unknown, concrete to abstract, general to specific etc.

- **Instructional strategies** are to be stated clearly. Depending on the learning style and nature of the content we have to decide the appropriate instructional strategy. Appropriate **media mix** that is combination of audio, video, graphics, animation; simulation etc is to be decided.
- **Learner evaluation strategies** such as practice, computer marked or tutor marked assessments, pretest, post-test, remedial tests etc are to be specified. We have to decide about the formative and summative assessments. Before developing the content for the selected course review the proposed learning objectives. Make sure that content, assessment tests and exercises match the objectives stated. Provide the information and knowledge required to meet the learning objectives.

Development

- It is related to the creation of story board. **Story board** is nothing but **scripting the entire course content**.
- The term ‘story board’ is taken from film production. In a movie it indicates the **visual representation of the various scenes**.
- In e-content development the story board **describes step by step script of the final outcome of the e-content**
- i.e. story board is created to provide **a blue print of the course with each and every detail along with the content notes**.

- The story board is created based on the **objectives and instructional strategies.**
- Here the developers create and assemble the content assets and learning objects.
- **Programming and integration** of all media elements into a cohesive multimedia package are the part of this phase

Implement

- In the implementation phase, **materials are distributed to learners.**
- A comprehensive implementation strategy document is developed.
- This document should cover the course curriculum, learning outcomes, method of delivery in terms of hardware and software requirements and testing procedures.
- Ensure that the web site is functional if the material is on the web site.

Evaluation

- The evaluation phase consists of two parts i.e. Formative and summative evaluation.
- Formative evaluation is present in each stage of the ADDIE process.
- Summative evaluation determines the adequacy of the distributed materials in achieving the course objectives.
- Material is to be revised at all the stages based on the feedback received.

References

- <https://www.slideshare.net/tanvivahora/econtent-development-using-multimedia>
- <https://it.wikipedia.org/wiki/E-content>

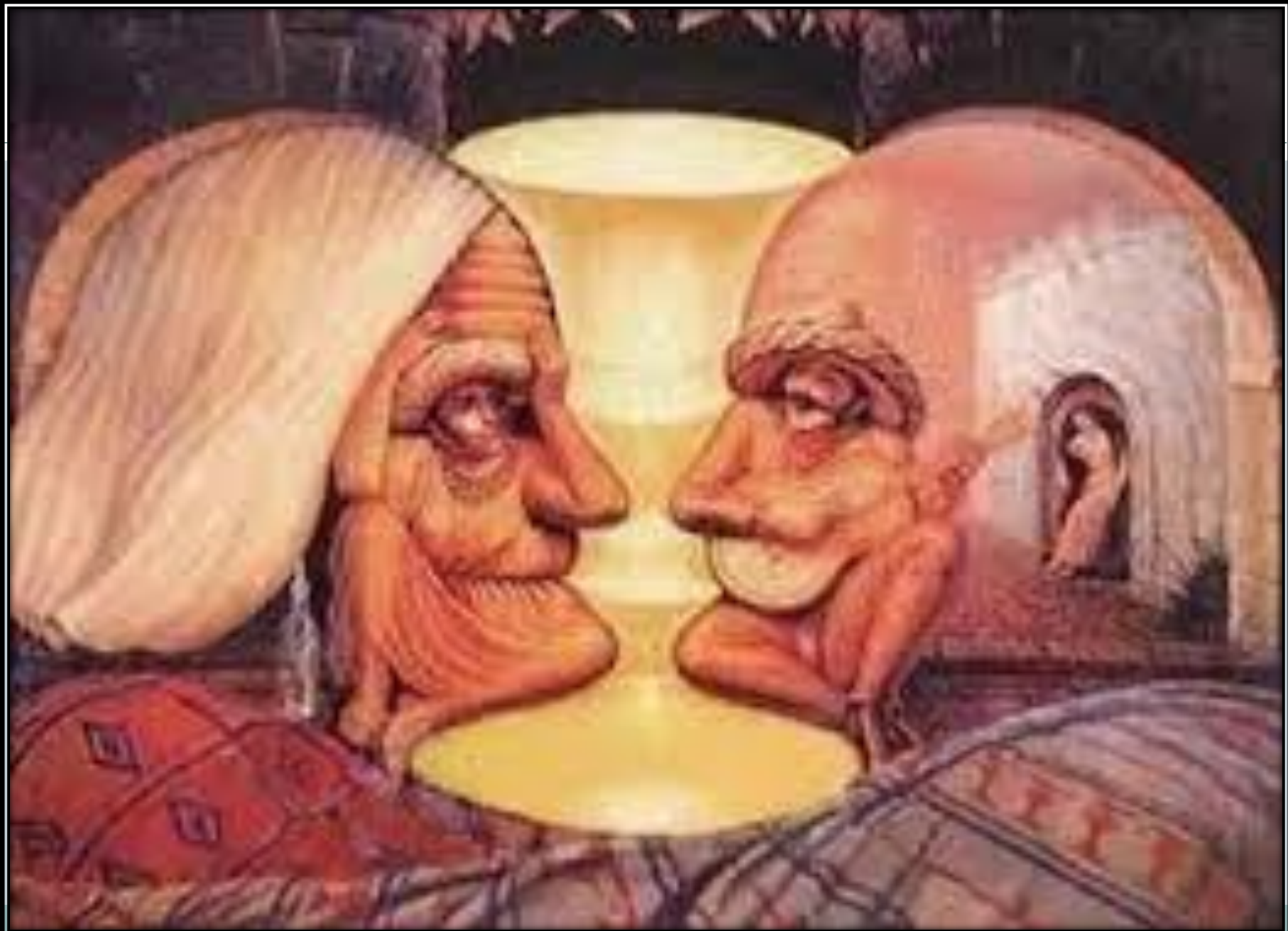
Insightful learning



**MED 101
PSYCHOLOGY OF LEARNING AND
DEVELOPMENT**

**PRESENTED BY:
ASST.PROF.SHAHEEN ANSARI**

- A group of German psychologists called gestaltists and particularly Wolfgang Kohler originated the learning theory named , Insightful learning.
- ‘Gestalt’ is a German word , means “ configuration” or “ an organized whole” in contrast to collection of parts.
- Gestalt psychologists consider the process of learning to be a gestalt- an organized whole.
- The basic idea of the theory is that a thing cannot be understood by the study of its constituent parts but only by the study of it as a whole.





PETER
AND THE
WOLF

A SUZIE TEMPLETON FILM

SERGEI PROKOFIEV | BREAKTHRU FILMS | 

GESTALT PRINCIPLES



Gestalt Principles: The way in which we organise features of a visual scene by grouping them to perceive a whole, complete form.

- The focus of Gestalt theory has been the idea of grouping , i.e., characteristics of stimuli cause us to structure or interpret a visual field or problem in a certain way.

- **Laws of organization**

- Proximity
- Similarity
- Closure
- Simplicity



PROXIMITY

When objects placed together, the eye perceives them as a group.



SIMILARITY

When objects look similar to one another, the eye perceives them as a group or pattern.



CONTINUANCE

The eye is compelled to move from one object through another.



CLOSURE

When an object is incomplete or not completely enclosed.

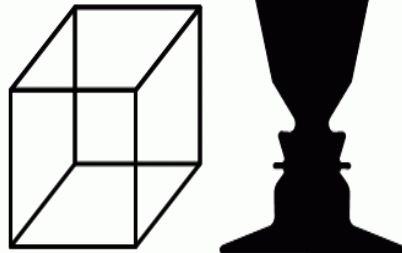


FIGURE & GROUND

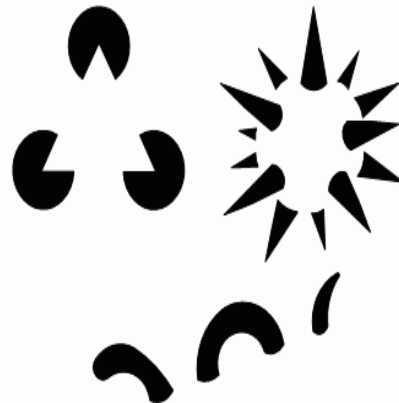
When the eye differentiates an object from its surrounding area.



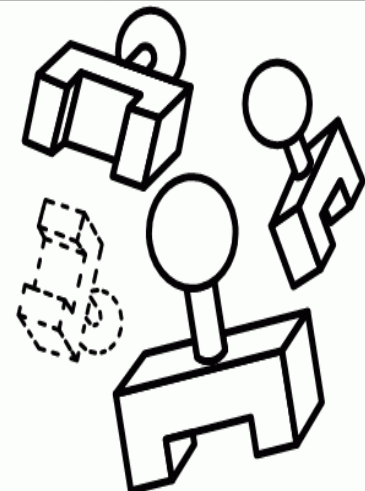
Emergence



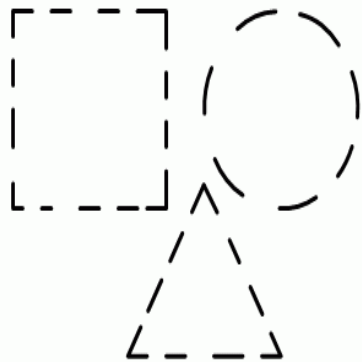
Multistability
Figure/Background selection



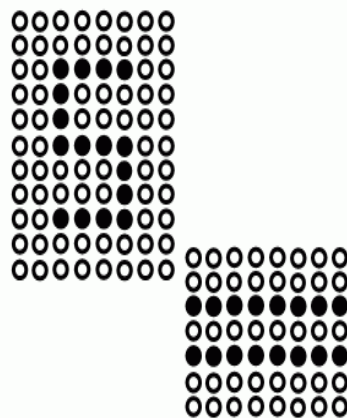
Reification
Illusory contours



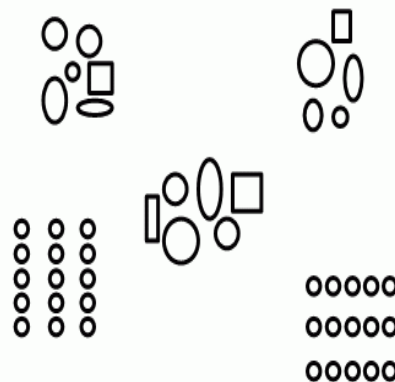
Invariance



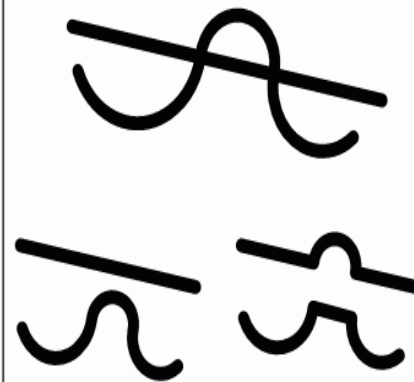
Closure



Similarity



Proximity



We see this...but not this
Continuity

(a)



(b)



(c)



(d)



(e)



(f)





- The experiments demonstrated the role of intelligence and cognitive abilities in higher learning such as problem solving.

- **Steps in insightful learning:**

- ✓ Identifying the problem (perception).
- ✓ Organizing their perceptual field.
- ✓ Using insight to reach a solution.

Factors involved



- Experience
- Learning situation
- Intelligence
- Initial efforts
- Repetition and generalization

Essentials of learning by insight



- Comprehension as a whole
- Clear goal
- Power of generalization
- Suddenness of the solution
- New forms of objects
- Transfer of learning
- Change in behaviour

References:



- Dhandekar, W.N., Makhija, S. ; Psychological foundations of education, 3rd edition, Macmillan India LTd.
- Mangal, S.K.; Advanced Educational Psychology, 2nd Edition, PHI.
- Mathur, S.S.; Educational Psychology, 16th Edition.

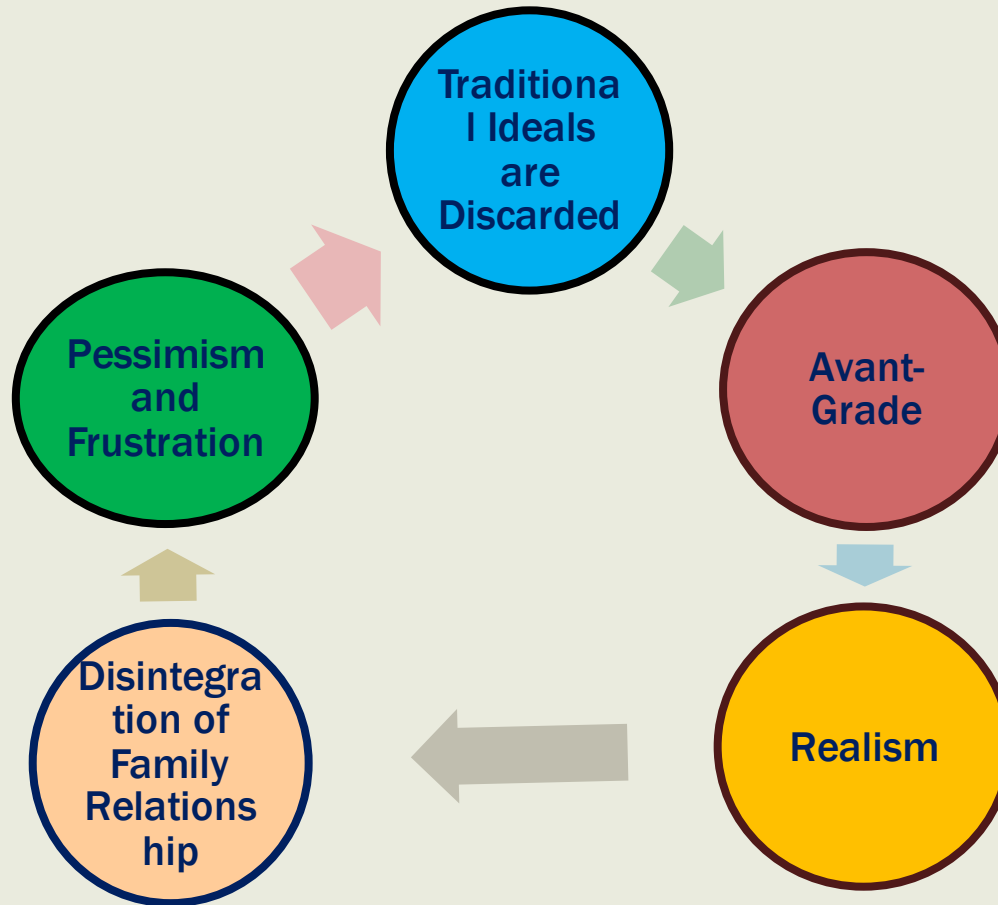
LITERARY MODERNISM

- **Programme- B.A.B.Ed (Integrated)**
- **Course Title- Introduction to Literary Criticism**
- **Course Code- Acc 406**
- **Presented By- Asst. Prof.Nilofar N. Patel**

LITERARY MODERNISM:

- Literary Modernism or modernist literature originated in late 19th and early 20th centuries, mainly Europe and America.
- Emily Dickinson and Walt Whitman are thought to be founders of Literary Modernism.

CHARACTERISTICS OF MODERNISM:



TRADITIONAL IDEALS ARE DISCARDED-

- The Modern age is age of Machinery. The two world war happened in this age.
- This fact has shaken faith of the western and American people in traditional, moral, social, political and religious values.
- Novels such as,
 - “The Stream of Consciousness”-James Joyce.
 - “ Outsider”-Camus

AVANT- GRADE

- Avant –Grade, is a modern literary term, means ' to make it new'
- The writers of modern age have violated the traditional form of Drama is not followed by the dramatist related to the 'Theatre of Absurd'

REALISM

- **The Modern Literature is governed by Realism. Writers like T.S.Eliot, Camus and Ibsen concentrated their attention on the problems of Modern Man. Modern Literature hold Mirror up to Nature.**

DISINTEGRATION OF FAMILY RELATIONSHIP

- Modern age is age of Materialism. Disintegration of family relationship is in the Modern age.
- Writers such as Kafka, D.H.Lawrence and Beckett written more on Disintegration of family relationship.
- The problems of Loneliness has been reflected in Modern Literature.

PESSIMISM AND FRUSTRATION

- **The Modern age is age of Machinery. This fact has created frustration and pessimism among the Modern people and modern writers**
- **Writers such as W.H.Auden, T.S.Eliot reveals, the meaningless life of Modern Man.**

REFERENCES:

- Atherton Carol.' Defining Literary Criticism'.Penguin,1981.(Reprinted version)
- Brown Marshall (ed.) 'Cambridge History of Romantism',Vol.5,Cambridge Univ.Press,2000.
- Thorat Ashok and others. 'A spectrum of Literary Criticism' (Frank Bros)2001.

**M.C.E SOCIETY's
H.G.M. AZAM COLLEGE OF EDUCATION,
CAMP, PUNE-01**

**M.ED SECOND YEAR
SEMESTER III**

**M.ED.-310 INTERNSHIP IN SECONDARY
/HIGHER SECONDARY**

Dr. Sunita Hiremath

Internship and it's importance

- ▣ Aware with the content , and organization of curriculum, infrastructure and resources needed and problems related to teacher preparation
- ▣ Examine the programmes from the view point of policy and its relevance to the demands of present day school realities.
- ▣ Develop competence in organization and evaluation of various components of good teaching.
- ▣ Develop professional attitudes, values and interests needed to function as a teacher.

Objective of the Programme

- ▣ To enable the Students:
 1. to explore the working environment of Secondary and Higher Secondary.
 2. to explore classroom teaching activities and organization of school/Higher Secondary.
 3. to acquaint knowledge of organization & Planning of evaluation process and extra curricular activities based on Secondary & Higher Secondary.
 4. Develop & expand professional Competencies skills, interest and expectation in preparing for career as a teacher.

What do the students do during the internship?

A) Attendance (10marks)

B) Preparation and Teaching Skill (3 Lesson note and 3 Actual Teaching) (20marks)

First method-Two Second method –one lesson

Those who done three methods- each method one lesson

For Jr. College- three lesson of your PG subject

C) Participation in co-curricular activities (10marks)

D) Administrative Records (10marks)

E) Diary Writing (10marks)

F) Overall Performance (15 Marks)

A) Attendance (10marks)

- ▣ Punctuality Internship attendance format (1).docx
- ▣ Regularity
- ▣ Attendance for other activities
- ▣ Full college hours
- ▣ Remark of the Principal

B)Preparation and Teaching Skill (3 Lesson note and 3 Actual Teaching) (20marks)

- ▣ **1) Preparation (for total 3 lessons; per week 1 lesson)
10 Marks**
- ▣ **Lesson plan (notes)-**
- ▣ **Teaching aids**
- ▣ **Reference**
- ▣ **Guidance**
- ▣ **Library work**
- ▣ **Templet-**

- ▣ **2) Actual teaching (3 lessons) 10 Marks**
- ▣ **According to lesson plan (use of micro skills)**
- ▣ **use of teaching aids**
- ▣ **use of IT \ ET Psychological testing**
- ▣ **Mastery over the subject**
- ▣ **last impression of the supervisor**

C) Participation in co-curricular activities (10marks)

- ▣ Morning programmes & value education periods**
- ▣ Meditation & Yoga activities**
- ▣ Cultural activities**
- ▣ Trips & visits**
- ▣ Any other programme arranged by the college.(Supervisor's remarks)**

E) Administrative Records (10marks)

- ▣ General Register
- ▣ A Log Book
- ▣ Service Register
- ▣ Transfer certificate Register
- ▣ Attendance Register
- ▣ Muster
- ▣ Records of Time -Table
- ▣ Examination Result's Records
- ▣ Visitor's Book

F) Diary Writing (15marks)

- ▣ **Day wise programme**
- ▣ **Remarks on programmes observed**
- ▣ **Observations of**
 - ▣ **i) Students – Sports, C. A (co-curricular activities)., another**
 - ▣ **iii) Staff-Administration**
- ▣ **General atmosphere of the School**
- ▣ **Special programme of the school**
- ▣ **Specialty of the School**
- ▣ **Achievement of the School**
- ▣ **Linkage to the society**
- ▣ **Linkage to the world's community**
- ▣ **Library facilities**
- ▣ **Sports facilities**
- ▣ **Future planning of the School**

G) Overall Performance (15 Marks)

▣ Students must –

1) Be regular & punctual

2) Must follow the discipline of the institute

3) Follow the dress code & rules

4) Participate in all activities

5) Maintain the records

Evaluation by School/ Jr.College

- ▣ [internship evaluation \(2\).docx](#)

Seminar reading on Internship Programme (25 Marks)

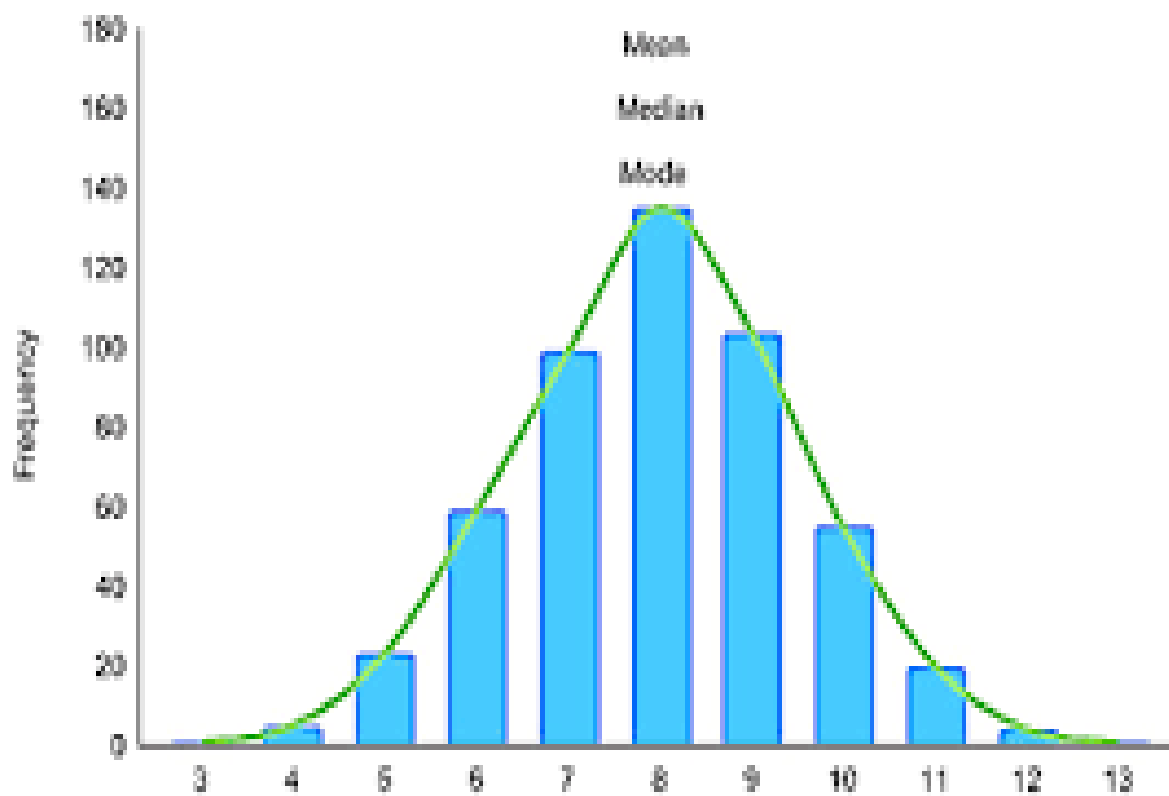
Sr. No.	Criteria	0	1	2	3	4	5
1.	Selection of content & Report of Internship Prog.						
2.	Presentation						
3.	Participation & Organization of Inter. Prog.						
4.	Preparation, Observation, Conduction of lesson						
5.	Total Impact						
	Total (out of 25)						

Reference:

- ▣ SPPU Syllabus FACULTY OF EDUCATION
Master of Education (M.Ed.) (Two Year) Program
Semester & Choice Based Credit Based Program

Statistics Sums on: Measures of Central Tendency

MEAN, MEDIAN & MODE



By

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Measures of Central Tendency: Mean, Median, Mode

A measure of central tendency is a single value that describes the way in which a group of data clusters around a central value. To put in other words, it is a way to describe the center of a data set. There are three measures of central tendency: the mean, the median, and the mode.

Central tendency is very useful in psychology.

Central tendency also allows you to compare one data set to another. For example, let's say you have a sample of girls and a sample of boys, and you are interested in comparing their heights. By calculating the average height for each sample, you could easily draw comparisons between the girls and boys.

Central tendency is also useful when you want to compare one piece of data to the entire data set.

There are three measures of central tendency:

1. Mean (M)
2. Median (Med)
3. Mode(Mo)

The mean or average. The mean is calculated in two steps:

1. Add the data together to find the sum
2. Take the sum of the data and divide it by the total number of data

Ex: you have a sample of 10 girls and 9 boys.

The girls' heights in inches are 60, 72, 61, 66, 63, 66, 59, 64, 71, 68.

Here are the steps to calculate the mean height for the girls:

First, you add the data together: $60 + 72 + 61 + 66 + 63 + 66 + 59 + 64 + 71 + 68 = 650$.

Then, you take the sum of the data (650) and divide it by the total number of data (10 girls): $650 / 10 = 65$. The average height for the girls in the sample is 65 inches. If you look at the data, you can see that 65 is a good representation of the data set because 65 lands right around the middle of the data set.

Properties of mean:

1. Measure of central tendency
2. Most common measure
3. Acts as 'balance point'
4. Affected by extreme values ('outliers')
5. Formula (sample mean)

The mean can be calculated in three different cases:

1. When only Scores (X) are given:

$$M = \frac{\sum X}{N}$$

Where

M= Mean

Σ (the Greek letter *sigma*) is the symbol for summation.

X is the symbol for the scores.

N is the symbol for the number of scores.

Find the mean of these numbers:

3, -7, 5, 13, -2

- The sum of these numbers is $3 - 7 + 5 + 13 - 2 = 12$
- There are 5 numbers.

$$M = \frac{\sum X}{N}$$

$$= \frac{12}{5}$$

$$= 2.4$$

The mean of the above numbers is 2.4

2. When Scores (X) and Frequency (f) is given: Use formula $M = \frac{\sum f.X}{N}$

1. Find the mean of

Score (X)	Frequency(f)	f.X
1	2	2
2	5	10
3	4	12
4	2	8
5	1	5
	N=14	$\sum f.X = 37$

$$M = \frac{\sum f.X}{N}$$

$$M = \frac{37}{14}$$

$$M = 2.64$$

2. Find the mean of

x	f	f.X
1	15	
2	27	
3	8	
4	5	
	N=	$\sum f.X =$

3. When the scores are given in group i.e. Class Intervals & f is given:

It is calculated in two different ways:

a) Simple Method $M = \frac{\sum fXm}{N}$

b) Assume Mean Method $M = Am + \frac{\sum f.d}{N} \times i$

Median: The statistical median is the middle number in a sequence of numbers. To find the median, organize each number in order by size; the number in the middle is the median.

The Median is the "*middle*" of a sorted list of numbers.

1. When only Scores (X) are given:

Example: find the Median of 12, 3 and 5

Put them in order: 3, 5, 12

The middle is 5, so the median is 5.

Example:

3, 13, 7, 5, 21, 23, 39, 23, 40, 23, 14, 12, 56, 23, 29

When we put those numbers in order we have:

3, 5, 7, 12, 13, 14, 21, 23, 23, 23, 23, 29, 39, 40, 56

There are fifteen numbers. Our middle is the eighth number:

3, 5, 7, 12, 13, 14, 21, 23, 23, 23, 23, 29, 39, 40, 56

The median value of this set of numbers is 23.

2. When Scores (X) and frequency (f) is given

Example:

X	10	9	8	7	6	5	4	3	2	1
f	4	10	13	10	6	3	5	6	0	3

Solution: Arrange the table & calculate Cumulative Frequency

X	F	C.F (Cumulative frequency)	
10	4	60	60=N
9	10	56	
8	13	46	
7	10	33	
6	6	23	
5	3	17	
4	5	14	

3	6	9	
2	0	3	
1	3	3	

$$N=60 \quad N/2=30$$

Then for selection of the median column we will see in cumulative frequency column the immediate number which is equal or greater than 30

In this way we can select the row with c.f. 33

$$\text{Formula for Median} = L + \left(\frac{\frac{N}{2} - Fb}{Fm} \right)$$

Where L= Lower limit of the selected row = 6.5

Fb= Frequency below the selected cumulative frequency=23

Fm = Frequency of the selected median row= 10

Putting the values in the formula

$$\begin{aligned} \text{Median} &= L + \left(\frac{\frac{N}{2} - Fb}{Fm} \right) \\ &= 6.5 + \left(\frac{30 - 23}{10} \right) \\ &= 6.5 + \left(\frac{7}{10} \right) \\ &= 6.5 + 0.7 \end{aligned}$$

Median= 7.2

3. When Class Interval (C.I.) and frequency (f) is given

Example:

C.I.	F	C.F (Cumulative frequency)	
90-99	3	40	N=40
80-89	5	37	
70-79	5	32	
60-69	10	27	
50-59	7	17	
40-49	6	10	
30-39	4	4	

$$N=40 \quad N/2= 20$$

Then for selection of the median column we will see in cumulative frequency column the immediate number which is equal or greater than 20

In this way we can select the row with c.f. 27

$$\text{Formula for Median} = L + \left(\frac{N - F_b}{F_m} \right) \times i$$

Where L= Lower limit of the selected row = 59.5

Fb= Frequency below the selected cumulative frequency=32

Fm = Frequency of the selected median row= 17

I = Interval=10

Putting the values in the formula

$$\begin{aligned} \text{Median} &= L + \left(\frac{N - F_b}{F_m} \right) \times i \\ &= 59.5 + \left(\frac{20 - 17}{10} \right) \times 10 \\ &= 59.5 + \left(\frac{3}{10} \right) \times 10 \\ &= 59.5 + 0.3 \times 10 \\ &= 59.5 + 3 \end{aligned}$$

Median = 62.5

Properties of median:

Measure of central tendency

2. Middle value in ordered sequence

- If n is odd, middle value of sequence
- If n is even, average of 2 middle values

3. Position of median in sequence

Positioning Point = $n+1/2$

4. Not affected by extreme values

Mode: The mode is the number that occurs most often within a set of numbers. The mode is simply the number which appears most often.

Example: 3, 7, 5, 13, 20, 23, 39, 23, 40, 23, 14, 12, 56, 23, 29

In order these numbers are:

3, 5, 7, 12, 13, 14, 20, 23, 23, 23, 23, 29, 39, 40, 56

This makes it easy to see which numbers appear most often.

In this case the mode is 23.

- We can have more than one mode.

Example: {1, 3, 3, 3, 4, 4, 6, 6, 6, 9}

3 appear three times, as does 6.

So there are two modes: at 3 and 6

Having two modes is called "bimodal".

3. When Class Interval (C.I.) and frequency (f) is given

Example:

C.I.	F	C.F (Cumulative frequency)	d	F x d
80-89	3	60	4	12
70-79	2	57	3	06
60-69	7	55	2	14
50-59	12	48	1	12
40-49	18 Fm	36	0	00
30-39	10	18 Fb	-1	-10
20-29	6	8	-2	-12
10-19	2	2	-3	-06
	N=60			$\Sigma fd = 16$

$M_o = 3$ Mdn -2M

$$\begin{aligned}
 \text{Mean} = M &= Am + \frac{\Sigma f.d}{N} \times i \\
 &= 44.5 + \left(\frac{16}{60}\right) \times 10 \\
 &= 44.5 + 2.67 \\
 &= 47.16
 \end{aligned}$$

$$\begin{aligned}
 \text{Median} &= L + \left(\frac{\frac{N}{2} - Fb}{Fm} \right) \times i \\
 &= 39.5 + \left(\frac{30 - 18}{18} \right) \times 10 \\
 &= 39.5 + \left(\frac{12}{18} \right) \times 10 \\
 &= 39.5 + 6.67 \\
 &= 46.17
 \end{aligned}$$

Putting the values of median & mean in the following formula we get:

$$M_o = 3 \text{ Mdn} - 2M$$

$$M_o = 3 \times 46.17 - 2 \times 47.16$$

$$M_o = 138.50 - 94.32$$

$$M_o = 44.18$$

Range: The range is the difference between the highest and lowest values within a set of numbers.

Calculating the Mean, Median, Mode and Range for simple data

The table below shows how to calculate the mean, median, mode and range for two sets of data.

Set A contains the numbers 2, 2, 3, 5, 5, 7, 8 and Set B contains the numbers 2, 3, 3, 4, 6, 7.

Measure	Set A 2, 2, 3, 5, 5, 7, 8	Set B 2, 3, 3, 4, 6, 7
The Mean To find the mean, you need to add up all the data, and then divide this total by the number of values in the data.	Adding the numbers up gives: $2 + 2 + 3 + 5 + 5 + 7 + 8 = 32$ There are 7 values, so you divide	Adding the numbers up gives: $2 + 3 + 3 + 4 + 6 + 7 = 25$ There are 6 values, so you divide the total by 6: $25 \div 6 = 4.166\dots$

	<p>the total by 7: $32 \div 7 = 4.57\dots$</p> <p>So the mean is 4.57 (2 d.p.)</p>	<p>So the mean is 4.17 (2 d.p.)</p>
<p>The Median</p> <p>To find the median, you need to put the values in order, then find the middle value. If there are two values in the middle then you find the mean of these two values.</p>	<p>The numbers in order: 2, 2, 3, (5), 5, 7, 8</p> <p>The middle value is marked in brackets, and it is 5.</p> <p>So the median is 5</p>	<p>The numbers in order: 2, 3, (3, 4), 6, 7</p> <p>This time there are two values in the middle. They have been put in brackets. The median is found by calculating the mean of these two values: $(3 + 4) \div 2 = 3.5$</p> <p>So the median is 3.5</p>
<p>The Mode</p> <p>The mode is the value which appears the most often in the data. It is possible to have more than one mode if there is more than one</p>	<p>The data values: <u>2, 2</u>, 3, <u>5, 5</u>, 7, 8</p> <p>The values which appear most often are 2 and 5. They both appear more time than any of the other data values.</p> <p>So the modes are 2 and 5</p>	<p>The data values: 2, <u>3, 3</u>, 4, 6, 7</p> <p>This time there is only one value which appears most often - the number 3. It appears more times than any of the other data values.</p> <p>So the mode is 3</p>

value which appears the most.		
The Range To find the range, you first need to find the lowest and highest values in the data. The range is found by subtracting the lowest value from the highest value.	The data values: <u>2</u> , 2, 3, 5, 5, 7, <u>8</u> The lowest value is 2 and the highest value is 8. Subtracting the lowest from the highest gives: $8 - 2 = 6$ So the range is 6	The data values: <u>2</u> , 3, 3, 4, 6, <u>7</u> The lowest value is 2 and the highest value is 7. Subtracting the lowest from the highest gives: $7 - 2 = 5$ So the range is 5

Characteristics of Mean, Median & Mode:

No.	Mode	Median	Mean
1	It is the most frequent value in the distribution; it is the point of greatest density.	It is the value of the middle point of the array (not midpoint of range), such that half the items are above and half below it.	It is the value in a given aggregate which would obtain if all the values were equal.
2	The value of the mode is established by the predominant	The value of the media is fixed by its position in the array and doesn't	The sum of deviations on either side of the mean is equal; hence, the

	frequency, not by the value in the distribution.	reflect the individual value.	algebraic sum of the deviation is equal zero.
3	It is the most probable value, hence the most typical.	The aggregate distance between the median point and all the value in the array is less than from any other point.	It reflects the magnitude of every value.
4	A distribution may have 2 or more modes. On the other hand, there is no mode in a rectangular distribution.	Each array has one and only one median.	An array has one and only one mean.
5	The mode does not reflect the degree of modality.	It cannot be manipulated algebraically: medians of subgroups cannot be weighted and combined.	Means may be manipulated algebraically: means of subgroups may be combined when properly weighted.
6	It cannot be manipulated algebraically: modes of subgroups cannot be combined.	It is stable in that grouping procedures do not affect it appreciably.	It may be calculated even when individual values are unknown, provided the sum of the values and the sample size n are known.

7	It is unstable that it is influenced by grouping procedures.	Value must be ordered, and may be grouped, for computation.	Values need not be ordered or grouped for this calculation.
8	Values must be ordered and group for its computation.	It can be compute when ends are open	It cannot be calculated from a frequency table when ends are open.
9	It can be calculated when table ends are open.	It is not applicable to qualitative data.	It is stable in that grouping procedures do not seriously affect it.

Basics of Preparing Research Proposal

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A] Introduction: -

Research proposal is rough outline of research work, which will be undertaken by researcher in future. So preparing research proposal is very significant step of any research work, hence understating steps for preparing research proposal is very important.

B] Research proposal steps: -

Research process gives brief overview of research methodology. Research process consists of series of action or steps necessary to effectively carry out research and the desired sequencing of these steps. Action Research consists of a number of closely related activities these are called as the steps of action research.

1. Title of research
2. Introduction
3. Need and Significance of research
4. Statement of the problem
5. Objectives of research
6. Hypothesis of research / Research Question
7. Methodology of the research
8. Sampling method –Population, sample
9. Tools of data collection
10. Statistical tools used for data analysis
11. Flow chart of research work
12. Time schedule of the research

1] TITLE: -

First of all researcher must decide general area of interest. Then he should state a problem in general way. Then he should state it in a specific way. There are two steps of formulating research problem.

- a) Understanding the problem thoroughly.
- b) Rephrasing it into meaningful terms from analytical point of view.

The best way of understanding the problem is to discuss it with colleagues or with expertise.

Ex:- It can be written as below:

“A study of the effect of language games on the development of active vocabulary in English of B.Ed. Students”

2] INTRODUCTION: -

Write about background of your research problem, information related to all variable. Write description about the need and importance of the topic.

Ex:- It can be history, policies, survey result, etc.

The main aim of education is the all round development of the student. The important elements of the educational process are the teachers, students and curriculum. Now a day we often stress on “Quality education” rather than “Quantity education” To achieve this quality education the teacher should be able to decipher the curriculum correctly and disseminate the content to pupils in the most effective manner. Today there is too much reliance on lecture work and on prescribed text books. Due to the growing population in today’s scenario, we find that the load of the number of students per teacher has increased tremendously, thereby depriving the students of individual attention. Therefore in all the methods of learning, there is no better method than the self –learning method. Self learning includes self-experiencing which reinforces the learned materials comprehension first and its retention later. So the researcher decided to study the effectiveness of self learning material on the achievement of students

The researcher decided to prepare self learning material for the subject of “Advance Pedagogy”. Advanced Pedagogy is nothing but going beyond “Chalk and Talk” method.

It means development of human being with 21st century skills such critical thinking and self-direction.

3] NEED AND SIGNIFICANCE OF THE RESEARCH: -

In this step researcher must describe the importance of his research topic. In this researcher must explain about need of his research, why there is need of finding solution on this problem, what are the benefits of this research, why it is meaningful, etc.

Ex:- It can be written as below: In the B.Ed. teacher training program, students are to be trained to teach English subject at secondary level. As a teacher of English subject, they must be fluent and they have to provide accurate knowledge, skills regarding English to their students in future. At this stage it is very much needed that they must have sufficient active vocabulary, so that they can speak fluently and make their students fluent also. At this stage, if they learned how to develop active vocabulary among the students then it will be helpful for them for their whole teaching career life. So undertaking this type of study at this stage is very important.

4] STATEMENT OF THE PROBLEM: -

Statement of the problem is a description about the title of the research in the sentence format

Ex:- Following will be the statement of this study.

Statement of the problem is, to identify and analysis the need for value added courses in order to improve the quality of school education.

5] OBJECTIVES OF THE RESEARCH: -

Objectives are nothing but the various processes, which will be carried out by the researcher for finding the solution of the research problem. By formulating the objectives of research, researcher gets the direction of the research. While writing the objectives of research, researcher must have taken into consideration about the various activities which will he needed to perform for the conduction of research.

Ex:- Following will be the objectives of this study.

- a) To find out the active vocabulary competency in English of B.Ed. students.

- b) To conduct workshop of language games for active vocabulary development in English of B. Ed. students.
- c) To check the effectiveness of workshop of language games for active vocabulary development in English of B.Ed. students.

6] HYPOTHESIS OF THE RESEARCH / RESEARCH QUESTION: -

After extensive survey researcher should state in clear terms the working hypothesis. Hypothesis is a tentative assumption made in order to draw out and tests its logical or empirical consequences. Hypothesis provides focal point for research. Hypothesis should be very specific and limited to the piece of research in hand because it has to be tested. The role of hypothesis is to guide the researcher by delimiting the area of research and to keep him on the right track.

It sharpens his thinking and focuses attention on the more important facets of the problem. It also indicates the type of data required and the type of methods of data analysis to be used.

Ex:- It can be written as below:

- a) There will be no significant difference between student's pretest and post-test scores of the active vocabulary competency in English of B.Ed. students.
- b) Which type of value added courses are needed in order to improve the quality of school education?

7] METHODOLOGY OF THE RESEARCH: -

There are many methods of research, for B.Ed. Level three methods are introduces. These are,

- 1) Survey: - Collecting information about understanding, scores, status, situation, etc.
- 2) Experimental: - Cause and effect relationship
- 3) Case study: - studying about particular case

Ex: - Method of research: - Experimental Method

Design: - Pretest – Posttest single group design

8] SAMPLING – POPULATION AND SAMPLE

A] POPULATION: -

All the items under consideration in any field of inquiry constitute a universe or population. Researcher has to describe what will be the population of his research by considering each possible field.

Ex: - It can be written as below:

- a. All B.Ed. Students of University of Pune.
- b. All B.Ed. Students from Marathi medium College.
- c. All B.Ed. Students from co-educated College.
- d. All B.Ed. Students from Pune district.
- e. All B.Ed. Students from Maharashtra state.

B] SAMPLE AND SAMPLING:

Determining sample design: -

All the items under consideration in any field of inquiry constitute a universe or population. Studying of whole population is not practically possible so often we select only a few items from the universe for our study; these selected items are called as sample.

The researcher must decide the way of selecting a sample; this way is called as sample design. A sample design is a definite plan determined before any data collection. Samples can be either

- a) Probable sample
- b) Non probable sample**

Ex:- - Purposive Sampling

15 students

- ❖ Boys- 05
- ❖ Girls- 10

9] TOOLS USED FOR DATA COLLECTION: -

Collecting the data: -

There are several ways of collecting the appropriate data, which differ considerably in context of money costs, time and other resources at the disposal of the researcher. Data is of two types

- a. Primary data
- b. Secondary data

Ex: - Achievement test- Pretest and Posttest

10] STATISTICAL TOOLS USED FOR DATA ANALYSIS:

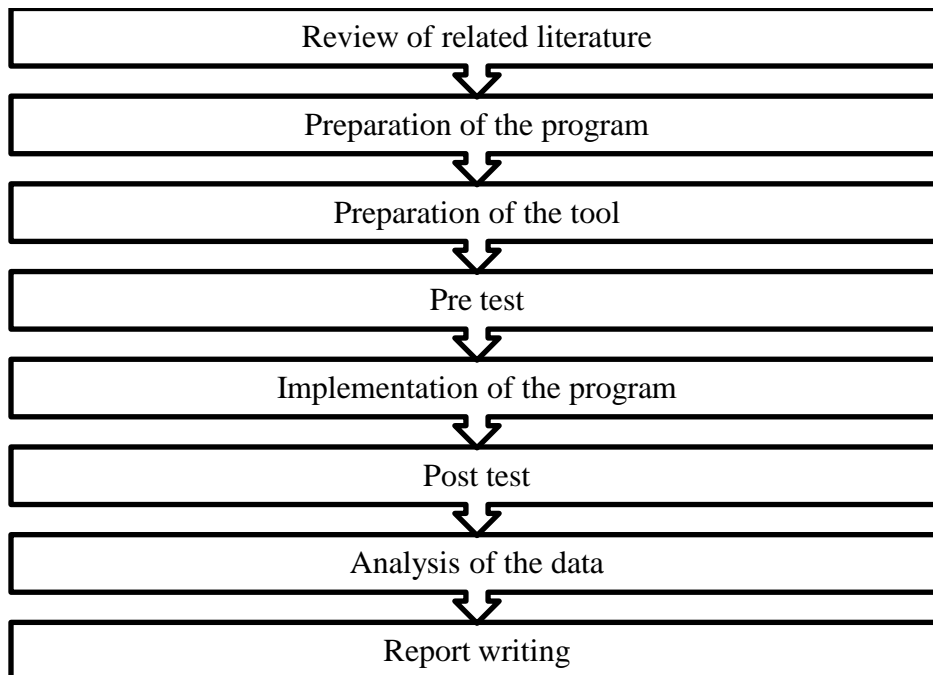
After the data have been collected the researcher has to analysis it. The researcher can analyze the collected data with the help of various statistical measures.

The analysis of data requires number of closely related operation as given below

Ex: -

- Percentage
- S.D.
- T –test

11] Flow chart of research work:



12] TIME SCHEDULE OF THE RESEARCH: -

In any research proposal researcher should give all the details of research work which he will be carried in future in the table format. Also researcher should also give the details of expenditure of conduction of research.

Ex: - It can be written as below:

Sr. No.	Content	Time Required
1	Review of reference literature	15 days
2	Preparation of program	20 days
3	Tool preparation	15 days
4	Pre test preparation	01 day
5	Post test preparation	01 day
6	Execution of program	05 days
7	Analysis	30 days
8	Report writing	30 days
	Total	117 days
