TOWARDS MORE EFFECTIVE TEACHER PERFORMANCE

IN HIGHER EDUCATION

– A MICRO ORIENTATION

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PROLOGUE

Fellow – Academics,

Teaching, if earnestly undertaken, will challenge the best efforts of the best teachers. Teaching in Higher Education is a challenge as well as an opportunity - to shape and mould the student population – to make their potential function towards their intellectual growth and development; towards their personality development; towards the facilitation of their sound Mental Health; towards Value Education so that they can play their role effectively in the Social and National Growth and Development ('Destiny of India is being shaped in the classrooms') Effective Teaching Performance is not an accident; it does not just happen. It is the outcome of a series of sequentially linked pre-service and in-service measures taken by teachers towards enrichment of their professional competency and subsequent performance.

The orientation packages that follow furnish the reader with the basic conceptual framework or theoretical background, self-evaluation exercises and self-appraisal inventories. These materials can be used by the coordinator of Orientation Programmes for Teachers in Higher Education. Such an orientation is likely to regenerate and rejuvenate effective Professional Performance of Teachers in Higher Education.

S. SATHIYAGIRIRAJAN

ABOUT THE AUTHOR
(His professional background)

The author had a significant break in his career (in 1976) when he was appointed as a Lecturer in the Department of Education of the then Madurai University (now Madurai Kamaraj University) [Earlier he was working as a Lecturer in Educational Psychology in Dr. Alagappa Chettiar Training College, Karaikudi] Prof. (Mrs.) J.K. Pillai was appointed Professor and Head of the Department of Education of the University. From 1976-77 the Department started conducting a course in Basic and Applied Pedagogy – a paper common to all M.Phil, students (mostly college teachers from different academic disciplines deputed for the course). The author was the coordinator of the course. He also facilitated several sessions along with Prof. (Mrs.) J.K. Pillai who trained him in orienting college teachers in 'Teaching – Learning – Evaluation' process. On her advice, the author chose a theme related to college teaching for his doctoral research – first of its kind ('Competency, Personality, Motivation and Profession Perception of College Teachers'). In addition he facilitated sessions for the M.Ed., /M.Phil degree courses and P.G. Diploma course in Higher Education (for college teachers). He started guiding M.Ed., /M.Phil. Dissertations (several of the themes were related to college teaching / teachers).

In 1981 he was transferred to the Directorate of Distance Education of the University as Reader and Head of the Department of Education to be in charge of the B.Ed., /M.Ed., degree courses. Around 10% of the student population happened to be college teachers. He continued to guide research projects on themes related to Higher Education.

His Ph.D. thesis on 'College Teaching' was instrumental to his entry to the UGC funded scheme – Academic Staff College of the University in 1988. He was transferred to the scheme as a Reader and later promoted as its Director in 1990. He served the scheme for around 9 years (2 years as a Reader and 7 years as its Director). He organized and conducted Orientation Programmes and Refresher Courses for Teachers in Higher Education. In addition he also conducted two seminars for college principals to get a feed back on the functioning of the scheme. He used to facilitate around one fourth of the sessions in Orientation Programmes. He was the most sought after fellow – Director by the Directors of other Academic Staff Colleges in the annual meetings in Delhi. He shared his materials (handouts, self-evaluation exercises and self appraisal inventories) with his fellow - Directors.

He was invited by the Directors of other Academic Staff Colleges to facilitate sessions in Orientation Programmes. Such invitations continued to be extended even after his retirement from formal service.

He spent his 'finest hours' while interacting with Teachers in Higher Education.

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1.00 TEACHER COMPETENCY

Content Outline

:

(CBTE – 3 major competencies – Methods of Teaching: Lecture, Discovery, Discussion - other avenues of knowledge enrichment : Seminar / Symposium / Workshop. Self-evaluation – TCRS: Teacher Competency Rating Scale)

1.10 Competency Based Teacher Education (CBTE)

CBTE was a movement in Teacher Education which, through research, identified three major competencies of a teacher.

1.11 <u>Knowledge Competency</u>: This has two layers: - 'What' and 'How'. **'What'** refers to the mastery of the academic discipline the teacher is assigned to teach. A teacher ought to have mastered the content (concepts and skills) he has to teach. In other words, he must be a good student of his subject. A bad (academically poor) student can never be a good teacher. **'How'** refers to the knowledge of method of presentation of the content in the classroom – knowledge of method of teaching. A good student is not necessarily a good teacher if he is not aware of the teaching methods and techniques of his subject matter. 'What' and 'How' are equally important 'How' complements and supplements 'What'.

1.12 <u>Performance Competency</u>: It refers to classroom presentation; knowledge competency ('What' and 'How') is translated into action. Theory is put into practice. Performance competency cannot be acquired overnight. It may take time. It depends upon the attitude and aptitude of the teacher. If one's attitude towards teaching is positive and if one has aptitude for teaching, one can acquire performance competency in a short time. Performance Competency

implies efficient teaching. Several teachers in Higher Education acquire performance competency only at the cost of a few earlier batches of students (by 'Trial and Error' method).

1.13 <u>Consequence Competency</u>: It refers to the learner outcome. Teaching must result in reaching the students. Is your teaching consequential? Do your students learn because of your teaching? (or do they learn in spite of your teaching?). A teacher ought to get periodic feedback from his students to find whether he is going on the right track – whether students learn what he wants them to learn. Consequence competency implies effective teaching.

In short, teacher competency implies ability and willingness to teach – knowing and teaching right things right.

1.20 Methods of Teaching

1.21 **Lecture: Essential ingredients of an effective lecture:**

- A good speaking voice

- Set, motivate, draw attention, arouse curiosity, create a conducive atmosphere - an 'at homeness' – a cordial friendly atmosphere – learning readiness.

- Clarity of thought and expression.

- Diction – vocabulary within the linguistic reach of the students.

- Intonation, stress, modulation of voice.

- Presentation – Release content in moderate, assimilable doses – let the succeeding idea emerge from the preceding idea – establish logical link between and among ideas – effective illustrations – anecdotes – striking sentences – fix – relate – consolidate.

- Sense of Humor (Timely, integrated with the lesson, to lighten the heaviness of the content – to be non-hostile, non-aggressive).

- Establish eye contact with the listeners, periodic survey through eyes to establish sense of belongingness.

- Natural body movement, body language, meaningful facial expressions and gestures.

- Sum up your talk – a few summary sentences – an appealing finale - a quotation – a short poem – a striking sentence.

1.22 Discovery (Heuristic) Method:

It is the exact anti-thesis of the 'telling' method. Teachers should not be too much 'teachy'. That government is the best which governs the least. In the same way that teacher is the best who teaches the least. The implication is: Do not go on talking; make students respond to your questions and thereby let them learn. Aldous Huxley in his 'Dangers of Good Teaching' implies that the so called good teacher who goes on talking unintentionally eliminates the learning process. Teaching is facilitation of learning.

'Heuristic' stems from the Latin word 'Heurisco' which means 'I find'. In Heuristic method, students are treated as discoverers. They are given minimum basic essential information or instruction. They are directed to experiment, observe and enter data collected in a note book, analyse data and arrive at their conclusions. If this task is beyond their reach, they may be given minimum essential assistance.

A variation of this method called Assisted Heuristic (Discovery) method is feasible. It implies leading the students in the path of discovery by means of well-chosen questions. Students will develop a sense of achievement and a spirit of enquiry in learning. Learning will be a delightful experience. It is not what you teach but how you teach it that counts. It facilitates self-learning skills of the student population.

1.23 Group Discussion: It is an organized conversation. The members of the group examine a problem; they raise questions, offer suggestions, place different points of view and finally arrive at a consensus. It is, thus, a democratic way of teaching (in fact, learning) based on joint deliberation. Learning, today, is no more a solo adventure but a joint enterprise.

Success of a group discussion depends upon the leader – the key person in the process. He must plan the discussion, initiate the discussion, keep the discussion moving and conclude the discussion.

This method is employed usually at the P.G. level. It may be tried even at the U.G. level. (In advanced countries it is tried even at the school level). If this method is periodically employed it will orient the students in Group Discussions when they appear for Job Interviews later.

1.24 A Final Word

Which is the best method of teaching? A judicious mixture of all the three. The method a teacher employs depends upon a number of factors – Intellectual level of the students, the topic, the available sources and the teacher's competency.

If a heavy content is to be covered in a short time 'Lecture' is the most effective method of teaching. Some units lend themselves for being taught through 'Discovery' in all academic disciplines. Teachers ought to be resourceful in identifying such units. Discovery method of teaching requires a thorough and resourceful preparation. Students may give right responses, wrong responses, or incomplete responses. They may not know how to link the various responses and arrive at a conclusion. Leading them in the path of discovery may be time-consuming, laborious and taxing but the results will be rewarding. Discussion is to be employed periodically especially on topics which can be self-taught. This method has become a 'must' today because of 'Knowledge Explosion'. Syllabus at every level is becoming heavier and heavier and it becomes

almost impossible for teachers in Higher Education to cover the entire syllabus within the stipulated time. Students ought to be trained in self-instruction. The responsibility of a teacher lies not only in teaching his discipline but facilitating his students in self-instruction through Discussion Method.

1.30 Avenues of Knowledge Enrichment

There are several other sources and avenues of knowledge enrichment - gathering and sharing knowledge with other knowledge-seekers. Some authors name them as non-conventional methods of teaching and learning. Only three of them are highlighted in this section.

1.31 Seminar

A seminar is a discussion meeting; the participants express their views on a specific subject; the main purpose is to elicit shades of opinion on various aspects of the subject.

A subject of current interest is chosen. After the formal inauguration and the key note address the audience is divided into small groups (depending upon the area of their interest) where the papers are presented and discussed. Each small group will have a rapporteur who will prepare a report for his group. In the general session the reports of the groups will be presented and the members of the other groups may register their reactions. Reports may be modified, refined and reorganized. Deliberations will be summed up towards the end.

The entire proceedings of the seminar will be printed in the form of a report or presented in a CD/DVD format later and despatched to all the participants.

1.32 Symposium

When compared with seminar, symposium is a higher level avenue of knowledge enrichment. The purpose of the symposium is to furnish the audience various aspects of a problem, by presenting a fair analysis of the several sides of a controversial issue.

Resource persons with specialized knowledge on the subject share their thoughts and ideas with others. The main purpose is to bring to light the expert views on the subject and thus enrich knowledge of the participants.

Participants may raise their questions to have their doubts clarified. The report of the entire proceedings of symposium will be printed (in the form of a book or in C.D/DVD format) and despatched to the participants.

1.33 Workshop

Seminar is 'theory – oriented' whereas 'workshop' is 'action/practice oriented. Participants will be exposed to some essential basic theory / conceptual framework and will be given guidelines and instructions on 'what to do'. They will be divided into small groups for the 'work'. For example if a workshop is organized on 'How to prepare an effective test?', then after the initial exposure to testing and related concepts, guidelines and instructions on how to prepare a test paper, the participants will be divided into discipline wise groups and they start preparing test papers of their respective disciplines as a group work. The report of the entire proceedings of the workshop including the outcome (test papers) will be published later for reference.

1.40 Self Evaluation (Multiple choice items – Indicate the most appropriate response in the brackets provided)

1. Knowledge competency refers to…

    A.   Knowledge of the subject matter.

    B. Knowledge of the methods of teaching

    C. Both A and B

    D. Either A or B   (   )

2. Performance competency refers to…

    A.   Aptitude for teaching

    B. Attitude towards teaching

    C. Both A and B in equal measure

    D. Efficient classroom presentation   (   )

3. Consequence competency is the acid test of …

    A. Effective teaching

    B. Efficient teaching

    C. Effortless teaching

    D. None of the above   (   )

4. The best method of teaching in Higher Education is…

    A. Effective lecture

    B. Assisted discovery method

    C. Discussion

    D. A resourceful blend of the three.   (   )

5. Lecture will be incomplete without…

    A. Meaningful body language

    B. A closing summary

    C. Logical organization of ideas

    D. Sense of humor   (   )

6. Discovery method results in…

    A. Effective learning

    B. Sense of achievement

    C. Delightful learning

    D. All of the above   ( )

7. What is the implication of group discussion?

    A. Learning is a joint enterprise

    B. Learning is a solo adventure

    C. Learning is by 'Trial and Error'

    D. Learning is by 'Insight'   ( )

8. What is the key activity of a seminar?

    A. Debate

    B. Discussion

    C. Paper presentation

    D. Presentation of reports   ( )

9. What is the keynote of a symposium?

    A. Expert opinion

    B. A controversial topic

    C. Reaction of the audience

    D. Knowledge sharing   ( )

10. Workshop implies…

    A. Theoretical exposure

    B. Conceptual frame work

    C. Practical and concrete work

    D. Guidelines and instructions   ( )

Key to Self Evaluation:

1. C   2. D   3. A   4. D   5. B   6. D   7. A   8. B   9. A   10. C

Are teachers born or made? Teachers are born to be made. Academically brilliant students with aptitude for teaching and a positive attitude towards teaching are to be identified and oriented for teaching.

1.50 Teacher Competency Rating Scale (TCRS)

[Source: I) Stanford Teacher Competency Appraisal Guide
                II) Instructor Rating Scale of San Jose College]
(Structured by: S. Sathiyagirirajan)

To be rated on a Five point scale:

A. To a great extent / Always;   B. To a substantial extent / Often

C. To a certain extent / sometimes;   D. To a marginal extent / Rarely

E. To a negligible extent / Never

Draw a circle around the letter (A, B, C, D or E) which indicates the most appropriate rating point for the person whose teacher competency you are rating. You are requested to make use of the rating sheet attached and not to make any mark on this scale. This is reusable.

I. Instruction:

1. Objectives of the lesson (clearly defined).

2. Setting (Introduction of the lesson is interesting and relevant; clearly linked with the main part of the lesson).

3. Clarity of presentation (content clearly presented; effectively explained and illustrated).

4. Pacing of the lesson (the movement from one part of the lesson to the next is governed by students' achievement; the teacher stays with the class and paces his/her teaching accordingly).

5. Organization of the lesson (well organized; the individual parts of the lesson are related to one another).

6. Student participation and attention (the class is attentive; students participate actively in the lesson when appropriate).

7. Closing (the lesson is ended when its objectives are realized; the 'ending' is interesting and relevant; it is appropriately linked with the main part of the lesson).

8. Variety in instructional strategy (effective and varied use of instructional strategies lecture, discovery, discussion, demonstration, visual and so on).

9. Skill in guiding learning process (students are given opportunity to think and learn independently, critically and creatively).

II. Evaluation

10. Variety of evaluative procedures (effective and varied use of methods and techniques to assess the achievement of students).

11. Use of evaluation to improve teaching-learning (effectively uses feedback of the results of performance assessment to improve instruction).

12. Assignments (clear, reasonable, coordinated with class work).

13. Fairness in assessment (fair and impartial; assessment based on several evidences of achievement).

14. Attention to student product (gives close and personal attention to and recognition of student product: answer script, term paper, assignment and the like: offers constructive remarks for improvement).

III. Professional:

15. Knowledge of the subject matter (broad, accurate and up-to-date).

16. Speech and enunciation (speaks clearly and distinctly; has a good speaking voice).

17. Concern for professional standards and growth (shows interest and actively participates in activities meant for maintaining and enriching professional standards and growth).

18. Concern for institutional programmes and goals (enthusiastic and interested in the institutional programmes, identifies himself/herself with the institution and gives his/her best towards realization of the institutional objectives and goals).

IV. Personal

19. Teacher – student rapport (the personal relationship between the teacher and the students is harmonious).

20. Rapport with fellow teachers (relationship with fellow teachers is harmonious; possesses effective human relations skills).

21. Ability to arouse interest (interest among students runs high).

22. Manners (manners pleasing; free from annoying mannerisms).

23. Willingness to help (friendly, cordial; willing to help students even if busy).

24. Recognition of own limitations (welcomes differences of opinion; intellectually honest).

25. Sense of Humor (good sport; sees the humorous side of any situation; enjoys/shares good jokes even when he/she is the target).

TCRS – RESPONSE SHEET

Item. No.	Rating point					Item. No.	Rating point				
1.	A	B	C	D	E	14.	A	B	C	D	E
2.	A	B	C	D	E	15.	A	B	C	D	E
3.	A	B	C	D	E	16.	A	B	C	D	E
4.	A	B	C	D	E	17.	A	B	C	D	E
5.	A	B	C	D	E	18.	A	B	C	D	E
6.	A	B	C	D	E	19.	A	B	C	D	E
7.	A	B	C	D	E	20.	A	B	C	D	E
8.	A	B	C	D	E	21.	A	B	C	D	E
9.	A	B	C	D	E	22.	A	B	C	D	E
10.	A	B	C	D	E	23.	A	B	C	D	E
11.	A	B	C	D	E	24.	A	B	C	D	E
12.	A	B	C	D	E	25.	A	B	C	D	E
13.	A	B	C	D	E						

Scoring: 4, 3, 2, 1, 0 for A, B, C, D, E respectively

Perfect Score: 25 x 4 = 100

2.00 MICRO TEACHING

Content outline:

(Definition – 3 phases – 5 R's – Skill of Explaining – Rating Proforma – Micro Lesson script – Self -Evaluation)

2.10 What is Micro Teaching?

Micro Teaching (MT) is a method of training teachers – pre service or in-service. It is a scaled down teaching micro: <u>in class size</u> (around 6 students for effective interaction); <u>in duration</u> (around 6 minutes: 30 seconds in setting; 5 minutes in presenting; 30 seconds in closing); in content / lesson (only a single concept or skill is taught).

2.20 Threes Phases of MT

Modelling: Learning by observation. Identify effective teachers in your discipline and observe them in action (while teaching). Identify their effective instructional skills (effective teachers are effective because they employ effective instructional skills).

Practice: Learning by doing. Try to internalise those skills by deliberate and intensive practice.

Feed back: Learning by listening (to others' criticism); your presentation can be refined and improved based on feedback.

There are three levels of MT:
- High Technology (Video coverage)
- Low Technology   (Audio coverage)
- No Technology

2.30 Three Sequential R's

With High Technology, Micro Teaching is most effective. The following are the five sequential R's of MT – HT:

R1 - Recording (micro lesson – classroom presentation is video covered).

R2 -   Reviewing (it is played back)

R3 -   Responding (others – peers and facilitators react to the presentation – pointing out plus points and minus points – offering concrete suggestions for improvement).

R4 - Refining – classroom presentation is modified and refined based on feed back – new micro lesson script is drafted.

R5 - Redoing – the same lesson is re-taught based on improved script.

This cycle (R1 to R5) continues till the skill is internalized.

In the sections that follow (2.40, 2.50, 2.60) a skill is identified and dealt with in detail.

2.40 **Skill of Explaining**

The skill of explaining is defined operationally in terms of behaviors.

Behaviors relevant to Explaining (for Teachers in Higher Education)

 i)   Setting   - orient the class for the concept

 ii)   Linking   - link the new concept (unknown) to an old concept (known)

 iii)   Attributing   - use appropriate qualifiers / adjectives to bring forth the meaning
                             of the concept

 iv)   Comparing   - compare the concept with related concepts in your subject / unit

 v)   Contrasting   - contrast the concept with other concepts with which it is likely to
                             be confused or misinterpreted

 vi)   Illustrating   - give as many illustrations as possible (from vital life experiences)

 vii)   Fixing   - meaningful repetition – key words / phrases sentences are deliberately
                             repeated periodically for getting them fixed in the mind of the learner

 viii) Focusing   - deliberate attempts to draw the attention of the learner to key / vital
                             Points – 'Your attention please', 'Mind you', 'That's the point', 'Please
                             remember' etc. etc. – deliberate pauses for a few seconds

ix) Paraphrasing - technical words / terms are translated into non-technical / simple words / terms / phrases to bring forth their meanings

x) Sequencing - outlining the sequential phases / stages

xi) Consequencing - stating how a succeeding phase / stage / event is the of result / consequence of a preceding one

xii) Closing - summing up – one or two or three summary sentences.

P.S. Choose those behaviours relevant to the concept selected for MT; one need not employ all the behaviours; try to employ as many behaviours as possible.

Similar skills appropriate to teaching in Higher Education may be identified, operationally defined and included in the list of instructional skills to be internalized through Micro Teaching.

2.50 RATING PROFORMA

S.No.	Behaviour	Tallies	Remarks
1.	Setting		
2.	Linking		
3.	Attributing		
4.	Comparing		
5.	Contrasting		
6.	Illustrating		
7.	Fixing		
8.	Focusing		
9.	Paraphrasing		
10.	Sequencing		
11.	Consequencing		
12.	Closing		

i)   Are instructional aids effectively used?

ii)   Is the language employed appropriate (within the linguistic reach of the students)?

iii)   Is clarity of thought manifest in presentation?

iv)   Is clarity of expression manifest in presentation?

v)   Are the different parts of the lesson logically linked?

vi)   Is pacing accompanied by student learning?

vii)   Is sense of humor manifest in presentation (under current)?

viii)   Are facial expressions (gestures) and body language appropriate? Do they convey meaning?

ix)   Is the teacher lively in his / her presentation?

x)   Is he / she free from mannerisms?

2.60 A **Micro Lesson Script**

In this section, the micro lesson script of the author's demonstration (of MT) is furnished for reference. (After giving a theoretical exposure on MT to the participants of the Orientation Programmes, he used to give a demonstration (of MT). This is one such script). He used to project key points recorded in the transparency sheet through OHP (Over Head Projector). The key points used to be presented and highlighted one by one (sequentially). Today High Technology – Power Point Presentation (PPP) is employed by Teachers in Higher Education.

Micro Lesson Script

Content of the lesson: What is Science?

Duration: Six minutes

(Setting: 30 seconds, Presenting: 5 minutes; Closing: 30 seconds)

A Rhetorical Question :   What is Science?

Setting: Today almost all the academic disciplines are called sciences – physical sciences, biological sciences, social sciences, behavioural sciences, literary sciences, linguistic sciences and so on. As teachers in Higher Education, we must have a clear concept the term, 'Science'.

Linking: Science stems from the Latin word 'Scientia', Scientia means knowledge
Science refers to a special type of knowledge.

Attributing: It is a body of verifiable knowledge. Verifiability is the acid test of science.

Contrasting: A scientific knowledge can be tested and verified. An unscientific knowledge cannot be tested / verified.

Paraphrasing: Science is a body of verifiable knowledge acquired through observation. What

is observation? Observation is regulated perception or disciplined perception. Perception is sensation plus meaning - the meaning attached to sensation is perception. Observation is, thus, perception with a specific purpose. Observation of what? Observation of Critical incidents / events 'Critical' means 'crucial' or 'decisive' – determining; events or incidents which decide or determine a result, an effect are 'Critical'.

Preamble to Illustrations: An incident does not become critical by itself; it depends upon the observer; If the observer does not have a critical eye he cannot identify critical incidents or identify criticality in incidents. Here are a few illustrations.

Illustrating:

The following critical observations of scientists are briefly described.

	Scientist	Incident	Discovery
1.	Galileo	Swinging of a chain of a lamp in a church	Principle of simple pendulum
2.	Michael Faraday	Vibration of a needle near a live wire	Electro magnetism
3.	Pythagoras	Right triangle designs on the floor	Theorem on right triangle
4.	Ivan Pavlov	Experiments with digestive System of dogs	Classical conditioning

Closing: To sump, Science is a body of verifiable knowledge acquired through observation of critical incidents.

(Fixing and focusing are employed whenever appropriate)

2.70 Self – Evaluation

Multiple choice items: Choose the right or the most appropriate response.

1. Micro teaching is micro in terms of…

    A. Class size

    B. Duration of teaching

    C. Content of the lesson

    D. All of the above   (   )

2. Effectiveness of micro teaching depends upon..

    A. Modelling

    B. Practice

    C. Feed back

    D. All of the above   (   )

3. With technology, micro teaching becomes more…

    A. Sophisticated

    B. Well known

    C. Effective

    D. Accessible   (   )

4. In the first stage of micro teaching a key skill is identified and…

    A. Subsequently internalized

    B. Operationally defined

    C. Content validated

    D. Tested for feasibility   (   )

5. 'Deliberate pauses' (for a few seconds) refer to…

    A. Closing

    B. Fixing

    C. Focusing

    D. None of the above   (   )

6. Paraphrasing implies…

    A. Presenting technical terms in simple understandable language

    B. Presenting the central theme of the lesson

    C. Presenting the key points of the lesson

D. Rephrasing the Presentation in colourful vocabulary ( )

7. Use of appropriate qualifiers refers to…

    A. Comparing

    B. Attributing

    C. Contrasting

    D. Linking ( )

8. The purpose of meaningful repetition of key points is…

    A. Focusing

    B. Fixing

    C. Closing

    D. Sequencing ( )

9. When the teacher highlights certain events as effects of preceding events he employs…

    A. Sequencing

    B. Linking

    C. Comparing and contrasting

    D. Consequencing ( )

10. The teacher should choose only those behaviours of the operational definition of the skill…

    A. Which appeal to him

    B. In which he is competent

    C. Relevant to the content of the lesson

    D. None of the above ( )

Key:									
1.	D	2.	D	3.	C	4.	B	5.	C
6.	A	7.	B	8.	B	9.	D	10.	C

3.00 EDUCATIONAL PSYCHOLOGY (A brief introduction)

This package (a modest attempt of author) is in the self-instructional format. Teachers in Higher Education may be required to prepare self-instructional packages in their respective academic

disciplines especially for the students of Distance Education Programmes. The format of this package may be referred to while preparing such packages.

A learning package deals with a unit of the course. You will find in it a list of objectives you are expected to attain on completion of your work with the package. As you work on, see that you assimilate the concepts dealt with in the package. Before you start working with the package, take the pretest. Check your responses against the key given. Thus you will be aware of your previous knowledge of the topic. As you go through the study units, you will get an exposure required for the mastery of the subject. The enrichment activities will provide you opportunities to practise the skills required of you and enrich and broaden knowledge you have already acquired. The package consists of two tests – Pre and Post. These tests will help you to assess for yourself the level of your achievement.

Pre – test

Section – A

There are five items in this section. For each item there are four options as responses. Indicate the correct/the most appropriate response (A, B, C or D) in the brackets provided.

1.   Psychology is the study of….

   A. Soul

   B. Mind

   C. Consciousness

   D. Behaviour   […..]

2.   The Domain of behaviour which focusess on 'attitudes, feelings and emotions' is…

   A. Cognitive

   B. Affective

   C. Psychomotor

   D. None of the above   […..]

3.   Experiment is observation……

   A. Under controlled conditions

   B. In natural settings

   C. Of a large number of cases

   D. Of a limited number of cases   [.….]

4.   Educational psychology is…….

   A. Application of psychology to education

   B. Application of education to psychology

   C. Psychological study of educational situations

   D. Educational study of psychological situations   [.….]

5.   The focus of educational psychology is …

   A. The learner

   B. The learning process

   C. The learning situation

   D. All of the above   [.….]

Section – B

Indicate whether each of the following statements is true (T) or false (F)

6.   Psychology is mind reading   T   F

7.   Psychology is a science   T   F

Section-C

Match the following – each item in X to be matched with the most appropriate option in Y

          X   Y

8. Case Study	A) Regulated perception
9. Survey	B) An extensive study of a large sample
10. Observation	C) Study of internal behavior
	D) An intensive study of a small sample
	E) Introspection

Key:	1.	D	2.	B	3.	A	4.	C	5.	D
	6.	F	7.	T	8.	D	9.	B	10.	A

Study Unit - 1

Psychology – An introduction

(After reading this section, you will be able to

- Define psychology
- Identify the three major domains of behaviour
- Identify the different approaches to the study of human behaviour
- State how these approaches supplement one another)

Psychology:

There are many false notions about psychology and psychologists. Psychology is not mind reading and psychologists are not gifted with mystic powers; they are not demi-gods with spiritual powers. They cannot size up people at a glance; they cannot assess the character, the personality of the individual at a glance. There are many self-styled psychologists who claim to study personality and thoughts of an individual by his physical features, his hand writing, by the way he is seated, by the style of his walking. They are psycho-quacks. Psychology is a science and psychologist is a scientist. Science is a body of verifiable knowledge based on observation and experimentation. Scientists do not take things for granted; they observe, investigate and find truth by themselves. Science begins with observation. The fundamental principle of science is to

seek facts rather than depend upon authority or sheer speculation. Scientist begins with questions, looks for relevant information and observes under controlled conditions. He is not trying to prove something; he is testing something; he is impartial and objective; he is intellectually honest and open-minded.

Psychology was once a branch of philosophy. It was defined as a study of soul; then as a study of mind (mental philosophy) and later as a study of consciousness and now as a study of behaviour. Psychology is a scientific study of human behaviour.

Any factor which initiates an activity is referred to as a stimulus; any activity that depends upon a stimulus is a response; in the most general sense psychologists deal with responses of organisms to stimulation. This is known as S-R approach to behaviour.

Behaviour is the total response of an organism to a situation with which it is confronted. Behaviour may be internal, implicit, covert or external, explicit, overt.   Any behaviour which can be easily observed, interpreted and evaluated is external, explicit or overt.   Our physical movements, gestures and facial expressions, the way we talk to others, the way we walk, and the like constitute external behaviour.   Internal behaviour refers to our thoughts and feelings, which cannot be observed directly. For example action is external; motive is internal. For every action there is a corresponding motive; no action is motiveless. There may be different motives for the same action.   A motive may bring about different actions.   Internal behaviour and external behaviour are equally important in psychology and often internal behaviour is more important than the external one in psychological studies. psychologists who attempt to modify or refine external behaviour must investigate and identify the corresponding internal behaviour; then only their attempts will be effective.

Psychologists view human behaviour as a result of 'inside' forces or 'outside' forces.

Inside forces imply needs, wants, anxieties, interests, attitudes, feelings of guilt and so forth.

Outside forces refer to attractive or disturbing aspects of the situation, attitudes and expectations of others, rewards, dangers, threats and so forth.

Psychologists also identify three domains of behaviour – cognitive, affective and psycho motor.

- Cognitive domain (thinking, intellectual outcomes)
- Affective domain (feelings, attitudes, emotions)
- Psycho motor domain (acting or doing; motor skills)

Different Approaches to Study of Human Behaviour

Psychologists belonging to different schools of thought employ different approaches to study human behaviour. Modern books on psychology outline the following approaches.

Neurobiological Approach:

This is the approach of physicians, medical scientists' and biological scientists. The human brain (the Central Nervous System) is the most sophisticated computer system. Psychologists who employ neuro-biological approach to study human behaviour try to identify a part or a point in the central nervous system especially in the brain for any human behaviour to be associated with. For any change in that behaviour (appearance or disappearance, improvement or decrease) the particular part or point is to be treated through medicine or exercise, for example the role played by temporal lobe in memory (through memory trace); the role played by hypothalamus in emotion and so on. However this approach is not in a position to change human behaviour completely in several situations.

Behaviouristic Approach:

Behaviourists mean external behaviour when they use the term, 'Behaviour'. According to them only those behaviours which can be seen or observed by others are verifiable and hence they only constitute the study of psychology. They believe in conditioning-classical, instrumental.

They believe in 'shaping' behaviour as advocated by Skinner. They advocate intensive training and physical occupation (rigorous physical exercises) as modes of modification of behaviour. Some psychologists call it a '**black box'** approach to human behaviour since it does not take into account what goes on 'inside the organism' (human mind), which, according to them, is largely responsible for behaviour.

Cognitive Approach:

The focus of cognitive psychologist is entirely on cognitive processes like perception, imagination, thinking and reasoning. In addition to those processes behaviour is caused by affective processes (feelings, emotions, drives and urges) too. Hence any approach to study human behaviour entirely on cognition is not likely to be effective.

Psycho-Analysis:

Freud and his followers highlighted the role of the 'unconscious mind' in human behaviour. We do agree that there are behaviours which are caused by unconscious impulses. But we cannot attribute all behaviour to the unconscious. Further only psychiatrists will be in a position to identity the unconscious motive or drive which is instrumental to a particular behaviour. Psycho-analysis is theoretically interesting but, in practice, extremely difficult.

Humanistic Approach:

Humanistic psychologists have 'soft corner' for human beings. Freudeun observation is: Man is basically bad driven by infrahuman motives; he is to be sublimated and refined.

Humanistic psychologists are of the opinion: 'Man is basically good; it is the environment that makes or mar him'. Their focus is on the current motives and drives – what has happened right here, right now. Their approach is also called 'here and now' approach. They give least importance to genetic influence, historical roots or the unconscious motives. Counsellers of the day employ humanistic approach to study and modify human behaviour.

Finale:

The different approaches outlined above are similar to different systems of medicine.. Modern approach is integrated and eclectic in nature. Hence our approach is a judicious mixture of the most appropriate ones depending upon the nature of the person, the nature of the problem, the nature of the circumstances and such other related factors. These approaches are not contradictory but complementary.

LPQ1

Satya, a teacher educator, after discussing (with students) the different approaches to study human behaviour narrated an anecdote how problem behaviour of a student was analysed by different teachers differently-each one emphasizing on one of the approaches. What did he attempt to highlight through this illustration?

- A. These approaches are contradictory
- B. These approaches are complementary
- C. These approaches are subjective
- D. These approaches are objective
- E. Though these approaches seem to be contradictory, they are, in fact, complementary

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Study Unit 2

Methods of Study

(After reading this section, you will be able to

- Identify three major methods of study of human behaviour employed by psychologists of the day.

- Identify the merits and limitations of each method.

- Select an appropriate method depending on the situation / case to be studied.)

Case Study:

A case study is also known as the case history of the individual because it is the analysis of the most important aspects of the individual. The analysis is in the form of past record, present position and future possibilities. The objective of case study is to study the individual or the group to diagnose specific problems and suggest remedial measures. The complete and detailed study of a case may involve the use of observations, interview, medical examination and use of various tests in intelligence, interest, aptitude and personality. Case study may involve a group of individuals, an institution, or a psychological phenomenon and the like.

Survey:

Case study is intensive whereas survey is extensive. With the application of psychology to various aspects of life it has become necessary to collect data from a large number of people-their attitudes, beliefs, prejudices and the like. Questionnaires, attitude scales, rating scales, observation schedules, interview schedules, interest inventories, personality inventories and such other tools of research will be employed to collect data. Appropriate statistical techniques will be used to analyse and interpret data.

Experimental Method:

Experiment is observation under controlled conditions. Modern psychological science is largely based on experimental method. It is not able to depend wholly on this kind of method (experimental) used by exact sciences because of the subject matter of psychology-the human being. Experiment consists of objective observation of actions performed under rigidly controlled conditions. The purpose of experiment in psychology is to identify the causal factors of behaviour.

If two or more instances have everything in common except one, the one in which they differ is the cause of the phenomenon. This is the basic assumption of experiment in psychology. In other words, if two situations are alike in every respect and if one factor is introduced or withdrawn from the one but not from the other, any difference that emerges is the result of the operation of that factor.

Here is an illustration: Suppose we want to study the effect of encouraging remarks on the answer scripts. Two equivalent groups of students are identified based on 'matching' or 'balancing' them on their previous academic performance and related factors. One is called control group. No remarks (encouraging or discouraging) are given on the answer scripts of these students. The other group is called experimental group and encouraging remarks are given on the answer scripts. After some time (six months or so-six monthly tests and treatments) the performances of the two groups are compared. If the experimental group is superior to the control one, then it can be concluded that encouraging remarks on the answer scripts do facilitate higher academic performance.

LPQ2

Giri, a teacher educator, after discussing (with the students) the different research methods of study of human behaviour highlighted the role of experiments in psychological research because…….

   A. Experiment is a hall mark of science.
   B. Experimental research is the current trend.
   C. Psychological research becomes more interesting.
   D. An experiment is less time – consuming than other methods of study.
   E. Experimental research in psychology will be the future trend.

Study Unit 3

What is Educational Psychology?

(After reading this unit, you will be able to

- Define educational psychology

- Identify the three focal areas of educational psychology

- State the specific objectives of educational psychology)

Educational psychology is not merely the application of principles of psychology to educational situations but something more than that. It is the study of the psychological aspects of educational situations. The objective of educational psychology is to help teachers develop an understanding of the entire educational process.

Educational psychology is concerned with three focal areas – the learner, the learning process and the learning situation.

The Learner:

Teachers must have an understanding of the psychology of the learner – the various psychological forces which operate in his/her field – interests, attitudes, feelings, sentiments, emotions, needs, urges and the like.

The Learning Process:

It focuses on what happens to the individual when he learns, why he learns what the teacher wants him to learn, why he does not learn what the teacher wants him to learn. It attempts to pinpoint specific behaviours of learning.

The Learning Situation:

It is concerned with those factors or conditions that influence the learner and the learning process – class room climate conducive to effective learning. Can we identify and introduce factors which facilitate learning? Can we identify and remove factors which affect learning?

Good teaching is much more than understanding these areas. But understanding is a basic requirement. The specific objectives of educational psychology are:

- To develop a scientific attitude in the teacher towards educational problems.

- To help the teacher set up appropriate educational situations so that changes in behaviour of the learners can be brought about towards desirable goals.

- To help the teacher in treating his students with sympathy and empathy.

- To help the teacher organize the academic content to be taught.

- To help the teacher realize that the social relationships are of utmost importance in the educational process.

- To help the teacher develop a problem solving research attitude.

- To help the teacher in providing guidance and counselling to his students.

- To help the educational administrators organize and administer the institutions.

- To provide the teacher with effective methods of teaching.

-

LPQ3

Rajan, a teacher educator, while discussing the focal areas of educational psychology drew a diagram of a triangle and labeled each vertex as a focal area. What did he try to emphasize?

A. The three focal areas operate in isolation
B. The three focal areas are independent
C. The three focal areas are equally important

D. The three focal areas refer to three different approaches

E. None of the above

Key for the Questions in the Study Unit

LPQ1: E   LPQ2:   A   LPQ3:   C

Post – Test

Section A

There are five items in his section. For each item there are four options as responses. Indicate the correct / the most appropriate response (A, B, C or D) in the brackets provided.

1. A psychologist is trying to…….a phenomenon
   A) Prove   B) Test
   C) Disprove   D) Manipulate   [….]

2. Psychology is a / an……….
   A) Science   B) Art
   C) Academic Discipline   D) Area of human experience   [….]

3. Focus on 'Thinking' is advocated by……..approach
   A) Behaviouristic   B) Psycho – analytic
   C) Cognitive   D) Neuro – biological   [….]

4. The causal factor of behaviour is studied by
   A) A survey   B) A case study
   C) An observational study   D) An experiment   [….]

5. Human behaviour is the result of……….
   A) Situational factors   B) Inside forces
   C) Outside forces   D) All of the above   [….]

Section B

Indicate whether each of the following statements is True (T) or False (F)

6. The very first method employed by psychologists to study human behaviour

    Was 'experiment'   T   F

7. The different approaches to human behaviour are complementary   T   F

Section C

Match the following – each item in X to be matched with the most appropriate option in Y.

X	Y
8. Focus on current motives	A) Neuro-biological approach
9. Focus on the unconscious	B) Behaviouristic approach
10. Focus on genetic factors	C) Cognitive approach
	D) Psycho-analytic approach
	E) Humanistic approach

Key:				
1. B	2. A	3. C	4. D	5. D
6. F	7. T	8. E	9. D	10. A

Summative Evaluation

1) What is psychology? (in about 75 words).

2) Define 'Behaviour'. Identify and briefly explain the three domains of behaviour (in about 75 words).

3) Attempt a critical estimate of the different approaches to human behaviour (in about 750 words).

4) Define and explain experimental method in psychology (in about 300 words)

5) Distinguish between case study and survey (in about 300 words).

6) Define the term, 'Educational Psychology'. Identify and briefly explain its three focal areas. Briefly outline its specific objectives (in about 300 words).

Enrichment Activities

Undertake informal case studies on the available and accessible cases of:

- Problem students (what make them problem students?)

- Problem teachers (what make them problem teachers?)

- High achieving students (what make them high achievers?)

- Low achieving students (what make them low achievers?)

- More effective teachers (what make them more effective?)

- Less effective teachers (what make them less effective?)

Your findings may be used as hypotheses* for more extensive surveys on the same topics

(*hypotheses are ad-hoc answers to research questions)

4.00 MOTIVATION

Content outline

[Motivation - defined – Types of motivation – Achievement motivation of McClelland – Maslow's hierarchy of needs – Finale – Self -evaluation – Self appraisal inventories]

4.10 **Definition**

Motivation is based on three psychological concepts – Need, Drive and Motive.

Need refers to lack of, non-availability of, absence of something useful, essential or desirable.

Drive refers to a psychological force which impels the individual into action (of meeting his need).

Motive refers to thought or feeling which generates a drive.

Motivation is the process of instilling an appropriate motive in the individual; this motive is likely to generate a drive; this drive, in turn, is likely to make the individual initiate action to meet his need.

4.20 Types of Motivation

Motivation is the outcome of nature's push and nurture's pull.

Motivation is physiological when it deals with **body**, psychological when it deals with **mind** and sociological when it deals with **interpersonal relations**.

Long time goals are powerful forces of motivation but they must be periodically reinforced by immediate motivation. A series of sequentially linked immediate goals, if reached in a phased manner, will lead the individual to his remote goals and thereby to a positive and healthy life style. (Focus: Distance of the Goal)

In intrinsic motivation, achievement is an end in itself (perfect performance of the task). In extrinsic motivation, achievement is a means to an end – benefits as a result of performance. High achievers are intrinsically motivated. Intrinsic motivation (Perceived worth of the task) is a mark of a positive and healthy life style.

4.30 Achievement Motivation

According to **McClelland**

- Motivation is the key facilitator of job performance.

- Motivation, to a great extent, is unconscious. He administered projective tests (designed to uncover unconscious motives) to a large sample (stratified random) of his target population and concluded that there are three (3 A's) Key Drives that motivate people to perform.

- Achievement Drive $\longrightarrow$ to excel and improve

- Administrative Drive ⟶ to manage sources (human / material)

- Affiliation Drive ⟶ to establish healthy inter-personal relations

McClelland's theory of achievement motivation implies setting for oneself a specific standard of excellence based one's interest and aptitude. People who are achievement oriented are self-disciplined.   They are in the 'flow' – their skills fully preoccupied and time flying, while performing their job. They spend most time employing their proficiencies and least time worrying about their deficiencies.

Aptitude and Attitude are equally important for Achievement. Aptitude (promising potential) and Attitude (positive perception) are the two wings which will facilitate the individual to soar high and to reach an Altitude (performance par excellence – Achievement).

Achievement Model
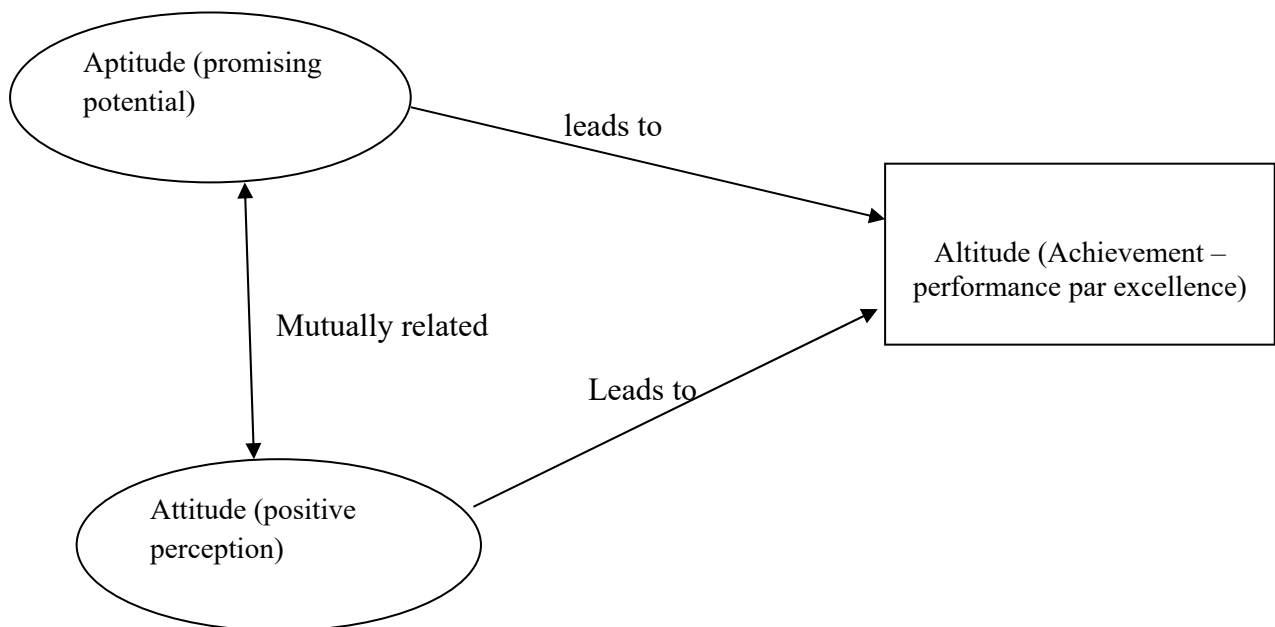
Achievement Motivation is influenced by:

- Others' expectations (if achievable, positive; if non-achievable, negative – pressures)

- Supportive climate (home / work spot / peer group)

- One's intelligence (abstract / concrete / social / creative)

- One's personality

- Culture / other socio-psychological factors

4.40 **Maslow's Hierarchy of Needs**

Abraham Maslow's theory of motivation is based on his hierarchy of needs (from bottom – lower levels– to-top-higher levels). According to him, "We do not motivate others; people are motivated by their own needs – perception of their need levels".

Hierarchy of needs

Self – Transcendence
↓
(Helping others- Connecting with
Something outside ourselves)

Self – actualization
↓
(Fulfilling personal potential)

Growth needs

Aesthetic
↓
(Order, beauty, symmetry)

Cognitive
↓

(Knowledge, understanding)

Self – esteem

↓   ↓

(Achievement, Recognition
Respect, Competence)

Love and Belongingness

↓   ↓

(Acceptance, Friendship, Intimacy
Inter Personal Relations, love and affection)

Deficiency Needs

Safety and Security

↓   ↓

(Security, stability, health, ambience,
Shelter, employment and the like)

Physiological – Basic

↓   ↓

(air, food, drink, rest, sleep, exercise, sex etc.,)

There is need for self – actualization in us – in each of us – in some degree in all – in the highest degree in the greatest of us.

Self – motivation implies

- Avoid unhealthy competition

- Avoid unjust comparison

'Giving your best' must be your aim (not necessarily 'topping the list'). Topping the list is incidental; not intentional. You may or may not top the list. Success does not refer to 'topping the list'; it implies 'giving your best'.

Self-actualization and **Achievement** Motivation as theories of motivation are not contradictory; but complementary. They are different approaches to motivation with the same

objective – objective of optimum realization of one's potential. When you have a desire to attain a specific standard of excellence and work towards it, you become self-actualized.

They imply two goals of life-**Success** and **Happiness**. McClelland's theory is 'achievement' oriented leading to life success. Maslow's theory, with a philosophical touch, is self actualization (self-fulfillment) oriented leading to happiness. These two theories explain why, how and when human beings are motivated to perform to their potential. Indirectly they indicate suggestions for parents, teachers, counsellors, team leaders, Heads of organizations on motivating measures. Self-motivation is the best form of motivation. A self-motivated individual leads a positive and healthy life style.

4.50 **Self – Evaluation**:

Multiple Choice Items

Choose the best / the most appropriate response out of the four options (A, B, C, D)

1. Motive refers to thought or feeling that generates a/an… in the individual
   A. Need
   B. Drive
   C. Urge
   D. Impulse   (   )

2. Psychological motives deal with……
   A. Human relations
   B. Body related factors
   C. Mind related factors
   D. None of the above   (   )

3. The best type of motivation focuses on….

    A. Immediate goals

    B. Remote goals

    C. Both

    D. Immediate goals leading to remote goals   ( )

4. High achievers are……..motivated

    A. Intrinsically

    B. Extrinsically

    C. Periodically

    D. spiritually   ( )

5. Achievement motivation implies…….

    A. Top achievement

    B. Best possible achievement

    C. A specific standard of excellence

    D. None of the above   ( )

6. Achievement is determined by……

    A. Promising potential

    B. Positive perception

    C. Self – motivation

    D. All of the above   ( )

7. People are motivated by their…..

    A. Nature

    B. Nurture

    C. Needs

    D. None of the above   ( )

8. When one gives one's best and makes one's potential function to perfection one reaches the level of….

    A. Self – actualization

    B. Self – realization

    C. Self – satisfaction

    D. Self – motivation   ( )

9. The level of self – actualization in one determines one's…..

    A. Achievement

    B. Success

    C. Happiness

    D. Greatness   (   )

10. The two goals of life implied by the theories of McClelland and Maslow are respectively..

    A. Happiness and Success

    B. Success and Happiness

    C. Positive and healthy life style

    D. Healthy and positive life style   (   )

Key:	1. B	2. C	3. D	4. A	5. C
	6. D	7. C	8. A	9. D	10. B

4.60 Motivation Level Perception Inventory

(Structured by S. Sathiyagirirajan)

To what extent does each of the job-related factors appeal to you and make you perform best?

    A   - To a substantial extent / nearly / often

    B   . To some extent / somewhat / sometimes

    C   . To a negligible extent / uncertain / rarely

S.No.	Factor	Extent of Appeal		
1.	Salary	A	B	C
2.	Job security	A	B	C
3.	Team spirit	A	B	C

4.	Recognition	A	B	C
5.	Self – fulfillment	A	B	C
6.	Attractive perks	A	B	C
7.	Peace of mind	A	B	C
8.	Sense of belongingness	A	B	C
9.	Self – esteem	A	B	C
10.	Aesthetic appeal	A	B	C
11.	Periodic promotion	A	B	C
12.	Physical comforts	A	B	C
13.	Cordial atmosphere	A	B	C
14.	Achievement	A	B	C
15.	Intellectual challenge	A	B	C
16.	Performance bonus	A	B	C
17.	Organised work spot	A	B	C
18.	Conducive emotional climate	A	B	C
19.	Prestige	A	B	C
20.	Realisation of potential	A	B	C
21.	Decent retirement benefits	A	B	C
22.	Orderly and neat ambience	A	B	C
23.	Informal social get-togethers	A	B	C
24.	Social image	A	B	C
25.	Intrinsic worth of the job	A	B	C

Scoring: 2, 1, and 0 for A, B, C respectively. Maximum possible score for each level 5 x 2 = 10

S.No.	Need Level	Factors	Score
1.	Basic	1, 6, 11, 16, 21	
2.	Safety and security	2, 7, 12, 17, 22	
3.	Love and belongingness	3, 8, 13, 18, 23	
4.	Self-esteem	4, 9, 14, 19, 24	
5.	Self-actualization	5, 10, 15, 20, 25	

Profile

Needs	0	1	2	3	4	5	6	7	8	9	10
Basic											
Safety and security											
Love and belongingness											
Self-esteem											
Self-actualization											
Needs	0	1	2	3	4	5	6	7	8	9	10

4.70 **Self Actualization Inventory**

(Source: **Maslow**: Motivation and Personality; **Hamachek**: Encounters with self)

(Structured by S. Sathiyagirirajan)

Read each of the following statements and indicate your response by drawing a circle around the appropriate letter (A, B, C). Do not skip any statement unresponded.

A   - To a substantial extent / often / nearly

B   . To some extent / sometimes / somewhat

C   . To a negligible extent / rarely /uncertain

1. I am aware of my merits and limitations   A   B   C

2. I am spontaneous in thought A B C

3. I have a sense of detachment from the material world A B C

4. I think and act independently A B C

5. Basic goods (a sunset, a flower, a melody and the like)

   of the day-to-day life appeal to me. A B C

6. I sympathize and empathize with the suffering humanity A B C

7. I accept myself A B C

8. My interpersonal relations are healthy A B C

9. I perform a task only after considering its ethical and moral aspects A B C

10. I am creative in thinking A B C

11. I maintain my individuality in all my behaviours A B C

12. I am spontaneous in expressing my finer sentiments A B C

13. I assess people on the basis of their individuality (not on the basis

    of status, community or any other irrelevant criterion) A B C

14. I can perceive novelty and uniqueness even in ordinary things A B C

15. I have a mission in life A B C

16. I am aware of merits and limitations of others A B C

17. I face facts and realities A B C

18. I assess objectively our traditions and conventions A B C

19. I identify work and tasks meant for me A B C

20. I am spontaneous in action A B C

21. I respect people with ethical values A B C

22. I have sense of good humour A B C

23. I seek privacy when situation demands A B C

24. I am concerned with the welfare of the entire humanity   A   B   C

25. I stand committed to my mission   A   B   C

SCORING: 2, 1, 0 for A, B, C respectively. Maximum possible score: 25 x 2 = 50

 Higher the score, higher the degree of self – actualization

(Any score above 25 leads to self – actualization).

5.00 INTELLIGENCE (and related factors)

Content Outline:

[Types of Intelligence (Thorndike) – Primary Mental Abilities (Thurstone) – Multiple Intelligence (Gardner) – Functional Intelligence – Intelligence, knowledge and wisdom – Aptitude – Implications – Emotional Intelligence – Self – evaluation – Emotional Intelligence inventory]

Intelligence refers to one's ability to acquire knowledge and use it on requirement – global capacity of an individual to act purposefully, to think rationally and deal effectively with environment.

5.10 **Types of Intelligence**

Thorndike identified three types of intelligence – Abstract, Concrete and Social.

Abstract intelligence refers to the ability of the individual to understand and deal with verbal and mathematical symbols, to deal with thoughts and ideas (abstract concepts) – usually assessed by Intelligence Tests (well defined problems with a single right solution). It was also called Analytical Intelligence (Sternberg – Academic problem solving).

Concrete intelligence refers to the ability of the individual to deal with things as in skilled occupations and mechanical appliances – also at times called mechanical intelligence (Sternberg: Practical intelligence which includes the ability required for every day tasks – undefined multiple solutions).

Social intelligence refers to the ability of the individual to understand and deal with people – ability to pull on nicely with people.

Creative intelligence is demonstrated in reacting adaptively to novel situations and generating novel ideas (Sternberg) Creativity refers to the ability to generate ideas that are novel and valuable (Wiles). Creativity is based on the following factors (Sternberg and Lubant): Expertise (rich knowledge base), Imaginative thinking skills, a venturesome personality, intrinsic motivation, a creative environment.

No individual is equally proficient or equally deficient in the different types of intelligence.

5.20 **Primary Mental Abilities**

Thurstone identified seven primary abilities as vital factors of intelligence.

Thurstone's primary mental abilities: NVWMSPR

Numerical ability - ability to perform fundamental operations with integers, fractions and decimals.

Verbal comprehension - ability to understand the meanings of words, phrases,thought contained in a sentence / passage

Word fluency - a rich, colourful and powerful vocabulary

Memory - ability to recall or recognize materials learnt

Space factor - ability to deal with problems related to three dimensional figures

Perceptual speed - ability to identify similarities and dissimilarities between objects

Reasoning - ability to identify cause – effect relationship

5.30 **Multiple Intelligence** (MI) (Factors of Intelligence)

Howard Gardner coined the term, 'multiple intelligence'- different factors of intelligence- each relatively independent of others – word smart, number smart, music smart, body smart, self smart, people smart, and nature smart. Thus the eight forms of MI are Linguistic, Logical – Mathematical, Musical, Spatial, Bodily, Kinesthetic, (sensing the position and movement of body parts) Intrapersonal, Inter-personal and Naturalistic, Gardner also speculates about a ninth possible intelligence-existential intelligence- the ability to ponder larger questions about life, death and existence.

5.40 **Functional Intelligence**

There are two levels of operation of intelligence – potential and functional. Intelligence must take off from potential (latent) and start functioning (manifest). It is not the static potential but the dynamic functional that is instrumental to achievement. Achievement = intelligence (potential) + diligence (systematic hardwork to make it functional). Successful people make the

best use of their intelligence.   In other words, they make their potential intelligence function. People with a healthy life style facilitate functioning of their potential intelligence.

5.50 **Intelligence, Knowledge and Wisdom**

Intelligence is the general mental ability of the individual. Research studies reveal that heredity plays a vital role in intelligence and environment plays a vital role in knowledge. Intelligence (the general mental ability) is inherited.   But knowledge is acquired.   It is true intelligence facilitates knowledge.   But mere possession of intelligence will not do.   It must function; it must be made the best use of.   Suppose there are two individuals A and B.   A has a higher degree of intelligence (general mental ability) when compared with B, but B is more successful than A.   How to account for it?   B makes better use of his general mental ability (intelligence) when compared with A's efforts.   [there are two levels of operation of intelligence (general mental ability) – potential and functional.   Your intelligence must take off from potential and start functioning].

The most successful people in this world are not necessarily the most intelligent people but people who make the most use of their intelligence – who make their potential function at the optimum level.   Intelligence is a question of degree.   There are individual differences in this general mental ability.   People cannot be divided into the 'intelligent' and the 'unintelligent' groups but only into the 'more intelligent' and the 'less intelligent' groups.   In what gear are you driving your intelligence?   That determines your degree of success.

Intelligence facilitates knowledge which, in turn, leads to success and happiness. Knowledge is power. So observed Bacon.   Knowledge must be gained with understanding.   This understanding facilitates application of knowledge in appropriate situations.   Knowledge must

also enable you to analyse, synthesise and evaluate thoughts and ideas. Only then knowledge becomes intellect-a power and this power leads you to success and happiness.

In our formal educational system mastery of knowledge is tested through tests and examinations and scores (marks obtained) are considered to be the indicators of achievement (mastery of knowledge). Most students cram academic content without understanding and reproduce materials in the answers scripts. Rote memory plays a vital role in getting scores. Most students do not understand even the fundamental concepts of their subjects but manage to get high scores by dint of rote memory. They manage to get jobs as well. But when knowledge of the subject matter is required, they cut a sorry figure. Only genuine mastery of knowledge will lead one to success and happiness.

When you learn materials for gaining mastery of knowledge, read with understanding, think of situations where this bit of knowledge can be applied, where this will be useful to analyse, synthesize and evaluate thoughts and ideas already learnt. Master the fundamentals of your subject. Memorization is not altogether bad, if judiciously done. Catchy statements, striking sentences, appealing utterances may be learnt by heart provided you understand their meaning. It is similar to learning by heart a song or a poem which appeals to you in content and form. Meaningful memory (and not rote memory) will facilitate mastery of knowledge.

Wisdom implies right use of knowledge. It also implies a sense of discrimination between right and wrong, good and evil. It has ethical and social implications. Knowledge when put to right use, leads to a wise action. Knowledge, when put to wrong use, leads to an unwise action. Wisdom facilitates success and happiness in life.

5.60 Aptitude

Aptitude refers to an individual's capacity to acquire (with training) some specific knowledge or skill. Aptitude (present) is potential revealed in performance (future).

Entry	Enroute	Exit

Aptitude (Potential)	⟶	Training/ Education	⟶	Achievement (Performance)
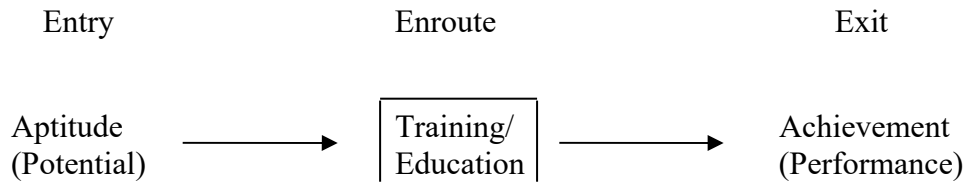
Aptitude refers to what one **can** do

Achievement refers to what one **does**

Aptitude tests are structured to test verbal, numerical, spatial, perceptual, artistic, aesthetic, musical, mechanical, social, scientific, clerical, managerial, practical abilities and the like. Aptitude tests are designed to measure a person's potential ability in an activity of specialized knowledge or skill.

Intelligence tests are academic aptitude tests.

5.70 **Implications**

The conceptual framework on 'intelligence' leads to the following implications.

- Assess yourself in each type of intelligence.

- Assess yourself in each factor of intelligence.

- Make the best use of your mental abilities.

- Let your memory be meaningful (not rote).

- Acquire relevant knowledge and skills.

- Update and enrich your knowledge and skills.

- Apply your knowledge and skills in appropriate situations.

- Employ knowledge and skills for the right use (wisdom).

- Identify and assess your aptitudes.

- Seek and perform tasks based on your aptitudes.

Intelligence test batteries and differential aptitude test batteries are available in the University Departments of Psychology / Education and in Colleges which offer P.G. degree courses in Psychology or Counselling or related disciplines. General mental ability tests are available in IAS Academies.

5.80 **Emotional Intelligence**

This concept is not entirely new to the field of psychology. It is the reemergence of social intelligence of Thorndike with a broader meaning and definition. Peter salovery and John Mayer coined the term – emotional intelligence. They classified intelligence into 'intellectual' and 'emotional' (similar to 'abstract' and 'social' of Thorndike). Emotional intelligence refers to the ability to perceive, express, understand, and to regulate emotions. The five basic components of emotional intelligence are: self-awareness, self -regulation, motivation, empathy and social skills.

Emotional Intelligence Inventory

(Rajan EII)
(Structured by S. Sathiyagirirajan)

Read each of the following statements and indicate your response by drawing a circle around the appropriate letter (A, B, C).

A - Nearly / To a substantial extent / often

B . Somewhat / To some extent / sometimes

C . Uncertain / To a negligible extent / rarely

1. I am aware of my feelings, sentiments and emotions   A   B   C

2. I express my feelings in refined ways   A   B   C

3. I desire what I deserve   A   B   C

4. I am aware of feelings, sentiments and emotions of others   A   B   C

5. My interpersonal relations are healthy   A   B   C

6. I avoid situations which are likely to provoke me emotionally   A   B   C

7. I express my finer sentiments freely in appropriate situations   A   B   C

8. I am more interested in my task than in the benefits I am likely to get on its completion   A   B   C

9. I have unconditional positive regard for others   A   B   C

10. I pull on nicely with others   A   B   C

11. Release of my emotions is healthy   A   B   C

12. I express my emotions in socially approved ways   A   B   C

13. More challenging remote goals appeal to me more than less challenging immediate goals   A   B   C

14. I respect others' views   A   B   C

15. I feel at home with others   A   B   C

16. I assess myself objectively   A   B   C

17. I avoid offending the feelings of others   A   B   C

18. I seek a specific standard of excellence in whatever work I perform   A   B   C

19. I facilitate healthy emotional release of others   A   B   C

20. Others feel at home with me   A   B   C

21. I accept myself   A   B   C

22. I avoid situations which are likely to provoke others emotionally   A   B   C

23. I derive a sense of fulfillment in whatever work I perform   A   B   C

24. I can perceive situations from the point of view of others   A   B   C

25. I am sought after by others for guidance.   A   B   C

5.82 **Scoring**: 2, 1, 0 for A, B, C respectively

S.No.	Components	Items	Score
1.	Self –awareness	1, 6, 11, 16, 21	
2.	Self- regulation	2, 7, 12, 17, 22	
3.	Motivation	3, 8, 13, 18, 23	
4.	Empathy	4, 9, 14, 19, 24	
5.	Social skills	5, 10, 15, 20, 25	

5.83 **Emotional Intelligence - Profile**

Components	0	1	2	3	4	5	6	7	8	9	10
Self – awareness											
Self – regulation											
Motivation											
Empathy											
Social skills											
Components	0	1	2	3	4	5	6	7	8	9	10

Interpretation: (for each component)	Below 4 : Low	4, 5, 6, 7: Mediocre	Above : 7 High

5.90 **Self - Evaluation**

Multiple Choice Items

Choose the most appropriate / the best response out of the four options given

1. The ability to understand and deal with others is called ………… intelligence

   A. Social   B. Abstract

   C. Practical   D. Creative   ( )

2. The ability to identify cause – effect relationship is called………….

   A. Perceptual factor   B. Space factor

   C. Reasoning   D. Mathematical skill   ( )

3. Intelligence is of no use if it does not……………

   A. Succeed   B. Increase

   C. Exert influence   D. Function   ( )

4. What does 'wisdom' imply?

   A. Useful knowledge   B. Good Performance

   C. Sense of discrimination   D. Promising potential   ( )

5. Another term for academic aptitude is……..

   A. Knowledge   B. Intelligence

   C. Wisdom   D. Diligence   ( )

6. Aptitude implies……performance

   A. Past   B. Present

   C. Future   D. None of the above   ( )

7. Aptitude refers to what……

   A. One can <u>do</u>   B. One actually <u>does</u>

    C. One <u>wants</u> to do   D. One <u>has done</u>   ( )

8. Success in life depends upon making the best use of one's…and performing tasks based on one's…..

    A. Knowledge, wisdom   B. Intelligence, aptitude

    C. Memory, reasoning   D. Diligence, attitude   (   )

9. Emotional intelligence is the reemergence of… intelligence with additional qualifiers

    A. Social   B. Abstract

    C. Practical   D. Creative   (   )

10. The key aspect of emotional intelligence is…….

    A. Emotional balance   B. Emotional control

    C. Emotional stability   D. Emotional regulation   (   )

Key:	1.A	2. C	3. D	4.C	5. B
	6.C	7.A	8. B	9.A	10. D

6.00 PERSONALITY

(and related factors)

Content outline:

[Personality defined – Segments of personality – Implications – A personality inventory – An interest preference inventory – Self evaluation]

6.10 **Definition**

Personality refers to the unique social behaviour of an individual; it implies the total quality of a person – physical, intellectual, emotional and social aspects of one's individuality. Today the focus is on social effectiveness of an individual – how an individual is effective in social situations.

6.20 Segments of Personality

Thorndike and Hagen identified five major segments of Personality: Interest, Attitude, Character, Temperament and Adjustment.

Interest refers to the general tendency of an individual to seek out and participate in certain activities – activities of his choice. 'Seeking out' is called 'Expressed' and 'Participatory', 'manifest'. One way of classifying life interests is based on values. Are your interests theoretical (intellectual / academic pursuits), practical (pragmatic), aesthetic (finer aspects of life), administrative (managing sources: human/material), social (service to people) [modified All port – Vernon values]. Do you have positive interests in life?

Attitude refers to the mental set of an individual – how one's mind is set or disposed towards life and fellow-citizens.

Attitude, if mild, is called disposition; attitude, when emotionally coloured, is called sentiment. Prejudice is a negative attitude based on hasty generalization. Are your attitudes positive and objective? Are you free from prejudices and irrational sentiments?

Character implies the moral and ethical self of an individual. Character is the sheet – anchor of one's personality. Do you possess good character?

Temperament refers to the characteristic or typical mood of an individual. Some of us are usually cheerful (in spite of difficulties) but some of us are usually cheerless (though free from problems or difficulties). It depends upon the temperament of the individual. Temperament, though partly inherited (genetic influence), can be refined through environmental

influences. A cheerful temperament is an asset. It makes one socially effective. Do you possess a nice temperament?

Adjustment refers to harmony (intra and inter). Intra harmony refers to harmony between one's aspirations and abilities. Do you desire what you deserve? Interharmony refers to harmony between the individual and society? Do you feel at home with others? Do others feel at home with you? Are your interpersonal relations usually healthy?

Success in life largely depends upon your personality. Environmental factors (home, peer group, friends and relatives, teachers, educational institutions, people with whom you interact, people whom you admire and follow, books you read, the various life experiences) play a vital role in shaping your personality. You can make your personality positive and effective, if you deliberately expose yourself to rich educative experiences that emerge in your personal and professional life.

6.30 **Implications**

Segments of Personality

Interest

Attitude

Character

Temperament

Adjustment
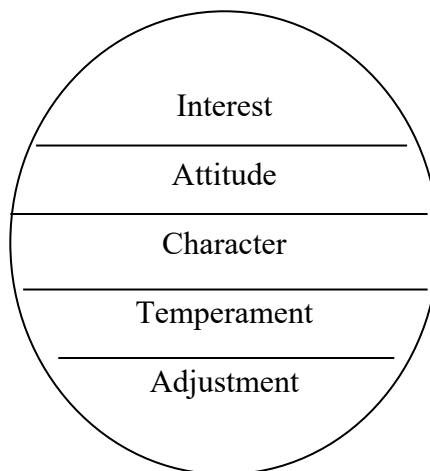
A positive personality refers to:

- Positive interest in various aspects of life.

- A positive attitude towards self, others and life general

- A sound character (compliance with ethical or moral standards of behaviour)

- A cheerful temperament

- A high degree of adjustment (intra and inter)

These imply

- Social orientation (social usefulness / effectiveness)

- Positive self – concept

- Optimism (free from pessimism / cynicism)

    (To be sceptical is constructive; to be cynical is destructive;

- To be optimistic is positive; To be pessimistic is negative)

    A positive personality leads one to success and happiness

6.10 Personality Inventory

(Rajan 10 PTI)

(Structured by S. Sathiyagirirajan)

Read each of the following statements and indicate your response by drawing a circle around the appropriate letter (A, B, C). Do not skip any statement unresponded.

A - Nearly / To a substantial extent / often

B - Somewhat / To some extent / sometimes

C - Uncertain / To a negligible extent / rarely

1. I am active in making social contracts   A   B   C

2. I am emotionally stable (no 'ups' or 'downs')	A	B	C
3. I pull on nicely with others	A	B	C
4. I have zest for life in spite of difficulties	A	B	C
5. I assess myself objectively	A	B	C
6. I assess others objectively	A	B	C
7. I am earnest in my performance	A	B	C
8. I comply with my self – imposed rules and regulations	A	B	C
9. I greet others with a smiling face	A	B	C
10. I am fairly confident	A	B	C
11. I prefer to work alone	A	B	C
12. I have emotional breakdowns	A	B	C
13. I am insensitive to the feelings of others	A	B	C
14. I am rather pessimistic of my future	A	B	C
15. I feel myself worthless at the onset of any failure	A	B	C
16. I feel others seem to be envious of my achievements	A	B	C
17. I am an easy – going type	A	B	C
18. Social norms debilitate individual growth and development	A	B	C
19. I am a moody type	A	B	C
20. I depend on others	A	B	C
21. I react positively to criticism	A	B	C
22. I am not overexcited even at the onset of success	A	B	C
23. I cooperate with others for the right cause	A	B	C
24. I get what I deserve in life	A	B	C

25. I accept myself for what I am worth	A	B	C
26. I accept others for what they are worth	A	B	C
27. I accept responsibility for performing a task in which			
I am proficient	A	B	C
28. I discipline myself	A	B	C
29. I am warm and cordial	A	B	C
30. I am self – motivated	A	B	C
31. I feel detached from groups	A	B	C
32. I am easily upset emotionally	A	B	C
33. I am harsh in interacting with others	A	B	C
34. Difficulties I face make my life miserable	A	B	C
35. I am not accepted by others	A	B	C
36. I think others seem to block my success and happiness	A	B	C
37. I prefer happy-go-lucky friends to serious ones	A	B	C
38. I am unsystematic in my work	A	B	C
39. I can be irritated or annoyed easily	A	B	C
40. I feel inadequate and insecure	A	B	C
41. I am outwardly expressive	A	B	C
42. I am not depressed even at the onset of failure	A	B	C
43. I am polite to others irrespective of status	A	B	C
44. I am fairly happy in my personal life	A	B	C
45. I have potential to lead a successful life	A	B	C
46. I think others are helpful to me	A	B	C
47. I care more for my duties than for my rights	A	B	C

48. I am a law- abiding citizen   A   B   C

49. I have a cheerful disposition   A   B   C

50. I trust my ability.   A   B   C

The ten personality traits covered in this inventory play a vital role in our personal as well as professional career. This will help you identify your merits and limitations (to what extent you are positive or negative in each trait). The profile that emerges after scoring will be your self - personality portrait reflecting your plus points and minus points. It is a type of diagnosis revealing your personality health. This is to be followed by self-remediation programmes.

Success in life depends upon two major factors – Intelligence and Personality. A positive personality will add happiness to your success and thus make your life meaningful and worth living.

SCORING: 2, 1, 0 for A, B, C respectively

(Scoring is reversed (0,1,2) for items 11 to 20 and 31 to 40)

Traits are defined as bi-polar dimensions. Maximum possible score for the right extreme is 5 x 2 = 10; Maximum possible score for the left extreme is 5 x 0 = 0.

S.No.	Traits	Bi-Polar Dimension	Score
1.	Social interaction (1, 11, 21, 31, 41)	Reserved ⟷ outgoing	

2.	Emotional balance (2, 12, 22, 32, 42)	Less balanced ⟷ More balanced	
3.	Inter personal relations (3, 13, 23, 33, 43)	Less healthy ⟷ More healthy	
4.	Perception of life (4, 14, 24, 34, 44)	Less positive ⟷ More positive	
5.	Perception of self (5, 15, 25, 35, 45)	Less positive ⟷ More positive	
6.	Perception of others (6, 16, 26, 36, 46)	Less positive ⟷ More positive	
7.	Sobriety (7, 17, 27, 37, 47)	Less serious ⟷ More serious	
8.	Self – discipline (8, 18, 28, 38, 48)	Less disciplined ⟷ More disciplined	
9.	Temperament (9, 19, 29, 39, 49)	Less cheerful ⟷ More cheerful	
10.	Self – reliance (10, 20, 30, 40, 50)	Less independent ⟷ More independent	

For each trait the serial numbers of the corresponding items are furnished within brackets.

Personality Profile

(Mark the score for each trait in the graph. Join the points consecutively by means of line segments; you will get your personality profile)

Traits	0	1	2	3	4	5	6	7	8	9	10
Social interaction											
Emotional balance											
Interpersonal relations											
Perception of life											
Perception of self											

	0	1	2	3	4	5	6	7	8	9	10
Perception of others											
Sobriety											
Self – discipline											
Temperament											
Self – reliance											
Traits	0	1	2	3	4	5	6	7	8	9	10

6.50 Interest Preference Inventory

(Structured by S. Sathiyagirirajan)

Here is a list of 25 items/activities of life interest. Indicate the extent to which each item /activity appeals to you by drawing a circle around the appropriate letter (A, B, or C). Do not skip any item unresponended.

A. To a substantial extent;   B. To some extent   C. To a negligible extent

S.No.	Item / activity	Extent of appeal		
1.	Knowledge enrichment	A	B	C
2.	Skill development	A	B	C
3.	Music (Listening to)	A	B	C
4.	Motivating others	A	B	C
5.	Helping others	A	B	C
6.	Intellectual challenge	A	B	C

7.	Useful work	A	B	C
8.	Poetry (Reading)	A	B	C
9.	Supervisory work	A	B	C
10.	Social work	A	B	C
11.	Academic pursuits	A	B	C
12.	Practical approach	A	B	C
13.	Art Gallery (visit to)	A	B	C
14.	Managing others	A	B	C
15.	Charity	A	B	C
16.	Research	A	B	C
17.	Pragmatic approach	A	B	C
18.	Reading (Fiction/ Non-fiction)	A	B	C
19.	Programme execution	A	B	C
20.	Championing a social cause	A	B	C
21.	Philosophical approach	A	B	C
22.	Business	A	B	C
23.	Literature (Reading)	A	B	C
24.	Group leadership	A	B	C
25.	Service to humanity	A	B	C

Scoring: 2, 1, 0 for A, B, C respectively. Maximum possible score for each area of life interest is 5 x 2 = 10.

S.No.	Area of Interest	Statements	Score

1.	Theoretical	1, 6, 11, 16, 21	
2.	Practical	2, 7, 12, 17, 22	
3.	Aesthetic	3, 8, 13, 18, 23	
4.	Administrative	4, 9, 14, 19, 24	
5.	Social	5, 10, 15, 20, 25	

Interest Preference Profile

Area of Interest	0	1	2	3	4	5	6	7	8	9	10
Theoretical											
Practical											
Aesthetic											
Administrative											
Social											
Area of Interest	0	1	2	3	4	5	6	7	8	9	10

6.70 Self – Evaluation

Multiple choice items

Choose the most appropriate response out of the four options that follow the stem.

1. The aspect of personality that predominates today is……..
   A. Intellectual   B. Emotional
   C. Social   D. Physical   (   )

2. Which is the sheet anchor of one's personality?

A. Temperament   B. Character

C. Attitude   D. Adjustment   ( )

3. Which segment of personality is genetically influenced to some extent?

   A. Attitude   B. Character

   C. Temperament   D. Adjustment   ( )

4. Positive personality implies…
   A.   Social orientation   B. Cynical approach.
   B.   Emotional isolation   D. Sentimental approach   ( )

5. The bipolar attributes of sobriety are …..
   A. Gloomy…cheerful   B. Dependent…..Independent
   C. Emotionally unstable….Emotionally stable D. Less serious…More serious   ( )

6. 'I am accepted by others'. Which of the following personality trait is implied by this
    statement?
    A. Perception of self   B. Perception of others

    C. Perception of life   D. None of the above   ( )

7. A positive personality leads to…and…
    A. Success and happiness   B. Power and fame
    C. Chances and choices   D. Achievement and status   ( )

8. A 'down to earth' approach implies….interest
    A.   Theoretical   B. Practical
    C. Social   D. Administrative   ( )

9. If you are interested in motivating others you are likely to shine…field

A. Social   B. Administrative

C. Theoretical   D. Aesthetic   ( )

10. If you want to be successful in business your dominant area of interest ought to be…

A. Administrative   B. Social

C. Theoretical   D. Practical   ( )

Key:	1. C	2. B	3. C	4. A	5. D
	6. A	7. A	8. B	9. B	10. D

7.00 MENTAL HEALTH

(and related factors)

Content outline:

[Mental health defined – Facilitators – Debilitators – Mental health inventory – Defensive behaviour inventory – Self-evaluation]

7.10 Definition

Mental Health refers to happiness-personal and professional-harmonious functioning of one's personality. Mental hygiene is the science of dealing with the preservation of mental health. It focusses on good living conditions that will not only cure mental ill-health but prevent the onset of mental illness as well. It deals with human welfare and pervades all fields of human relationships. It is the art of living based on sound principles of philosophy, psychology and sociology. Mental hygiene leads to mental health. Your mental health is not only your personal necessity but your social responsibility as well. Sound mental health facilitates a positive and healthy life style.

7.20 **Facilitators**

Happiness in personal life

Martin Saligman (an advocate of positive psychology) identifies three types of happy life.

The Good Life

The good life indicates personal growth and achieving 'flow'. According to **Carl Rogers** the good life is a process not a product. In order to enjoy good life, one must be fully open to experience, live in the present (right now, right here), trust oneself, take responsibility for one's choices, treat oneself and others with **unconditional positive regard**.

The Meaningful Life

The meaningful life implies 'service' (greater than oneself). It refers to **Maslow's** self – transcendence (helping others-service-a lofty objective of life-consequence and extension of self-actualization).

The Pleasant Life

The pleasant life refers to the socializing aspects of life. The good life and meaningful life pave the way of 'Lasting Happiness'. Research studies reveal that there is a high degree of relationship between happy life and social relationship (interharmony-healthy interpersonal relations).

Happiness in Professional Life (Job Satisfaction)

Job satisfaction is a transferred epithet. It does not lie in the job but in the job performer-his perception of the job, the content variables (nature of the job, skills required) the context variables (situations, organizational climate), relationship with peers, subordinates, superiors, salary, perks and such other factors.

Try to get the job you like (based on your interest and aptitude) or try to like the job you get (which is not impossible; people with a happy frame of mind and positive attitude towards life tried to like the jobs they get, subsequently started liking the jobs and became successes in those jobs). There are plus points and minus points in every job. There is 'dishwashing' (unpleasant activities) in every job (Dishwashing itself is a job). Don't be indifferent to your job (which does not appeal to you owing various factors) when you are trying for another one (which you are likely to get).

If one continues to identify minus points in every job, Job dissatisfaction will be one's nature / habit. (Dale Carnagie: The typical fault finder will find fault even in Heaven). Aptitude (for any job) is a relative term. You must have some aptitude for the job (you have got). Make the best use of it and acquire required skills through 'Training'. Your job performance now will bring you job satisfaction. Once you become a good job performer you will be the most sought after person in your field. Once you reach this stage the needs at the higher levels of Maslow-Recognition, Achievement, Self esteem, Social image, fulfillment-will be met. You will have autonomy in your job. You will reach your job goals in a reasonable time frame. Expose yourself to job enrichment activities. Job enrichment facilitates job satisfaction.

This implies when there is a glut in the employment market, and when the openings are meagre you may not get a job based on your interest and aptitude (a job which you like). Hence like the job which you get and employ the job satisfaction measures suggested so that you can achieve professional happiness even in jobs which did not appeal to you initially.

Healthy Interpersonal Relations:

Establish healthy interpersonal relations with others

- With whom you interact in your personal and professional life (the members of your family, relatives, friends, colleagues and people in your social net work).

- Be cordial, warm and friendly.

- Extend cooperation for the right cause.

- Be helpful to others.

- Have a cheerful disposition.

- Avoid nagging (excessive fault finding).

- Avoid offending the feelings of others.

- Avoid arguing (the best way to win an argument is to avoid it).

- Avoid insulting others.

- Appreciate others generously.

- Encourage others.

- Have regard for others.

- Be courteous and polite to others irrespective of age or status.

Coping Behaviour (Problem Solving Behaviour)

When you are confronted with problems, don't go to pieces-no emotional breakdown-don't create scenes-don't make faces. These behaviours will not help you solve your problems. In fact the situation will be aggravated. Remain cool, calm and collected. Be emotionally balanced. Employ your thinking and reasoning faculties. Some problems are real but most are imaginary.

Analyse your problems thoroughly. Identify measures you can employ to solve them. If there are more than one problem, tackle them one by one-in order of urgency, intensity and priority. If you are not able to solve your problems all alone, politely seek others' help (others here refer to your well-wishers, resourceful and competent well-wishers).

At the same time think of the worst possible thing that is likely to happen if the problem is not solved (for example loss of a job, loss of a life and the like). Be prepared for it (though psychologists talk about the amazing results of positive thinking, there are times when negative thinking is equally functional in some life situations). And at the same time try to solve your problems by taking sequential steps. Don't procrastinate. There were cases where termination of services from previous jobs happened to be the best things that happened to those individuals

since they were able to get better jobs and became successful and happy later. Hence don't worry even if you happen to lose a job. Try for another one. The best way to stop worrying about a problem is to solve it. The best way out of a difficulty is through it. If some problems are beyond solution learn how to pull on with such unsolved problems.

Sense of Humour

Sense of humour is an asset to the individual. It should not be hostile or aggressive. It implies not only enjoying and sharing jokes, humorous anecdotes, humorous aspects of life, but taking things sportively as well. Sense of humour does not refer to an overexcited or irresponsible happy-go-lucky disposition but taking things in lighter vein when faced with trials and tribulations.

A Life Mission

A meaningful life is a life with a mission. A life mission is not after material benefits (top position, money, power, comforts and the like). It is lofty in its objectives and goals. Service to the humanity has been the life mission of great people. We need not be great to have a life mission. In our own way-humble way-we can choose a social service based on our interest and aptitude. A life mission of our choice will lead to success and happiness facilitating a positive and healthy life style.

> "Lives of Great Men all remind us;
> We can make our Lives sublime;
> And departing leave behind us;
> Foot prints on the Sands of Time"

Faith in God

Believe in God. Have faith in Him. Surrender yourself to God. Be grateful to Him for what He has done for you. Don't nurture grievances for what, you think, He has not done for you. He knows what you deserve and what you don't. Prayer is an act of thanksgiving to God, seeking His forgiveness for your incidental or intentional wrongs and appealing to Him to make you useful to society. Your prayers will be answered when you pray for others. This is the secret of prayer. If others pray for you, their prayers will be answered and you will be successful and happy. Others will pray for you, if you are good, kind, nice and useful to them. Faith in God will instil in you a high degree of self-reliance to face and deal with challenges in life. The best way to express gratitude to God is to serve His purpose. So, extend help and support to the needy, the poor, the socially disadvantaged and deprived and the helpless.

7.30 **Debilitators**

Stress

Stress refers to a situation when an individual feels he is being attacked by several problems simultaneously.

P - the person (the individual)

→ Being

→ Attacked by problems
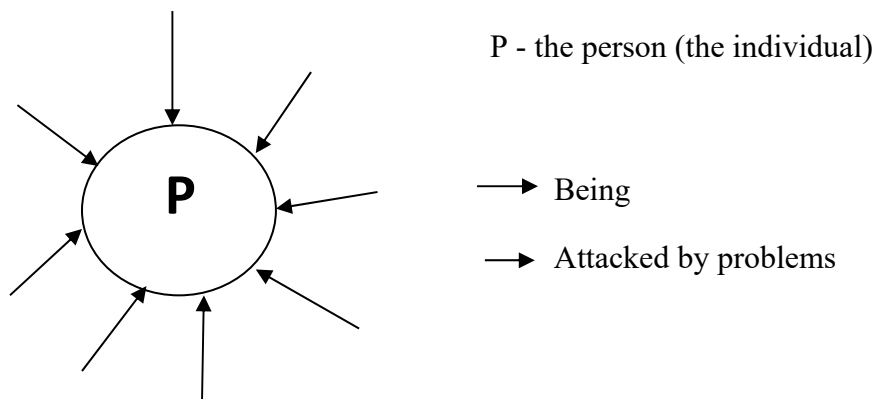
The individual must discriminate between real problems and imaginary problems. He must rank his real problems in order of intensity and urgency. He must solve them one by one. He must identify stressors-situations and factors which cause stress and deal with them

resourcefully. Under stressful situations he must employ relaxation techniques and maintain his emotional balance. He must employ problem solving approach (cognitive strategies – 'Reasoning' faculty).

Several stressors which we come across in our daily life are avoidable if we make a thorough study of them and develop strategies of dealing with them. If we are well organized in our personal and professional career such stressors can be easily avoided.

Frustration
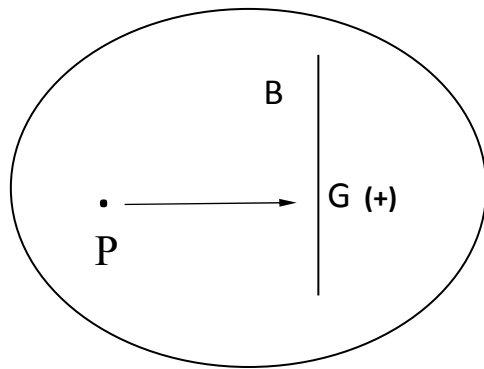
P: the person

G: goal

+: attraction

B: barrier

⟶ : Indicates psychological movement

Frustration refers to a situation when the attempt of an individual to reach a goal is blocked by a barrier or barriers. The individual must identify barriers and surmount them one by one. He must identify reachable goals to avoid frustration. He must identify substitute goals, if need be. When the process of reaching goals is time consuming and laborious, he must have frustration tolerance (and of course emotional balance).
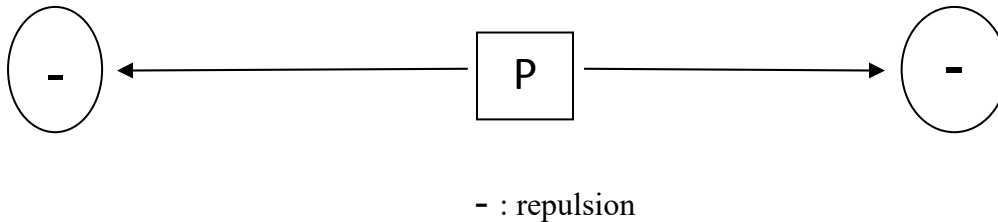
Conflict

When there is a clash between two motives / goals / situations, it is a case of conflict. When the two are equally attractive it is a case of 'Approach – Approach' conflict. When the two are equally repulsive it is a case of 'Avoidance – Avoidance' conflict. When the situation is partly attractive and partly repulsive it is a cause of Approach – Avoidance conflict.
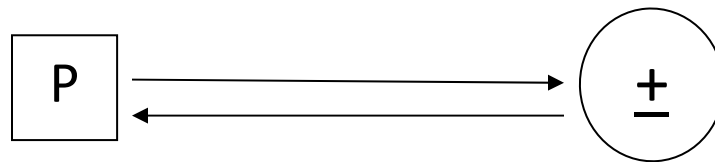
Approach – Approach Conflict

+ : attraction

Avoidance – Avoidance Conflict

- : repulsion

Approach – Avoidance Conflict

The individual must weigh the pros and cons of the situation and take a decision. He must learn from his own and others' experience.

Anxiety

It is a vague feeling that something bad, undesirable, unwanted, unexpected is likely to happen. The individual is not able to specify the source of anxiety. He is not able to specify 'what is wrong? Where?' but feels something wrong somewhere'. He feels his performance falls below his potential. He feels his performance falls below his preparation. Some degree of anxiety is likely to make the individual prepare well and perform well (give his best). However over-anxiety (there are individual differences in the limits to anxiety) will debilitate performance. Anxiety, when it exceeds limits by leaps and bounds, may end up as 'Panic' which plays havoc with one's personality. If self initiated measures to deal with anxiety are inadequate then the individuals must seek professional counselling.

Alienation

It refers to purposelessness, normlessness, meaninglessness, powerlessness, leading to self-estrangement. The typical attitude of the individual will be 'I care for nobody; nobody cares for me'. Alienated people will not have any well defined lifestyle; nor do they comply with social norms. This unsocial stage may lead to an antisocial stage. Professional counselling given at the appropriate stage-when symptoms are manifest in behaviour-will dealienate the individual and re-orient him socially.

Burnout

It is related to both personal and professional life. It is a self perceived stage when the individual feels he is fully exhausted (like a fully burntout candle). He feels he is not so effective, enthusiastic or competent as he used to be in his performance as a person and as a professional. He feels he has been exploited by others. He feels he has been working mostly for others (organization / family / friends / relatives) than for his personal and professional growth and development.

What is required is a break and a self- renewal programme and professional counselling (if situation demands) so that the individual can come out regenerated and rejuvenated with zeal, zest and enthusiasm with a positive perception of personal and professional life.

Defensive Behavour (Face Saving Approach)

Coping behaviour is problem solving behaviour. Defensive behaviour is its opposite: Face saving behaviour. The individual is not able to solve his problems. He feels 'infradig' (below his dignity) to seek others' help to solve his problems. He tries to hide his inability by several face saving approaches – 'ego' defenses – (collectively called defensive behaviour) - unconscious and self-deceptive. A positive and healthy life style facilitates one to identify one's defences, shake them off and move towards coping behaviour.

Some major 'ego' defences are as follows:

- Day dreaming

  (escape to the dream world when the real world poses problems)

- Compensation

  (Covering 'limitations' by projecting 'merits')

- Projection

  (attributing one's negative motives to others)

- Rationalization

  (feasible false excuses for non – performance)

- Identification

  (basking in others' glory)

- Repression

   (forgetting unpleasant experiences)

- Displacement

   (transferring hostility from a strong source to a weak one)

- Conversion

   (body being affected by mind)

- Reaction formation

   (faking feelings)

- Belittling

   (underestimating others)

7.40 Mental Health Inventory
(RAJAN MHI)
(Structured by S. Sathiyagirirajan)

Read each of the following statements and indicate your response by drawing a circle around the appropriate letter (A, B, or C). Do not skip any statement unresponded.

A -   To a substantial extent / Nearly /Often

B -   To some extent / Somewhat / Sometimes

C -   To a negligible extent / Uncertain / Rarely

1. I identify sources of happiness and make the best use of them. A B C

2. I identify sources of unhappiness and deal with them resourcefully. A B C

3. I identify sources of job satisfaction and make the best use of them. A B C

4. I identify sources of job dissatisfaction and deal with them

   resourcefully. A B C

5. I am emotionally stable. A B C
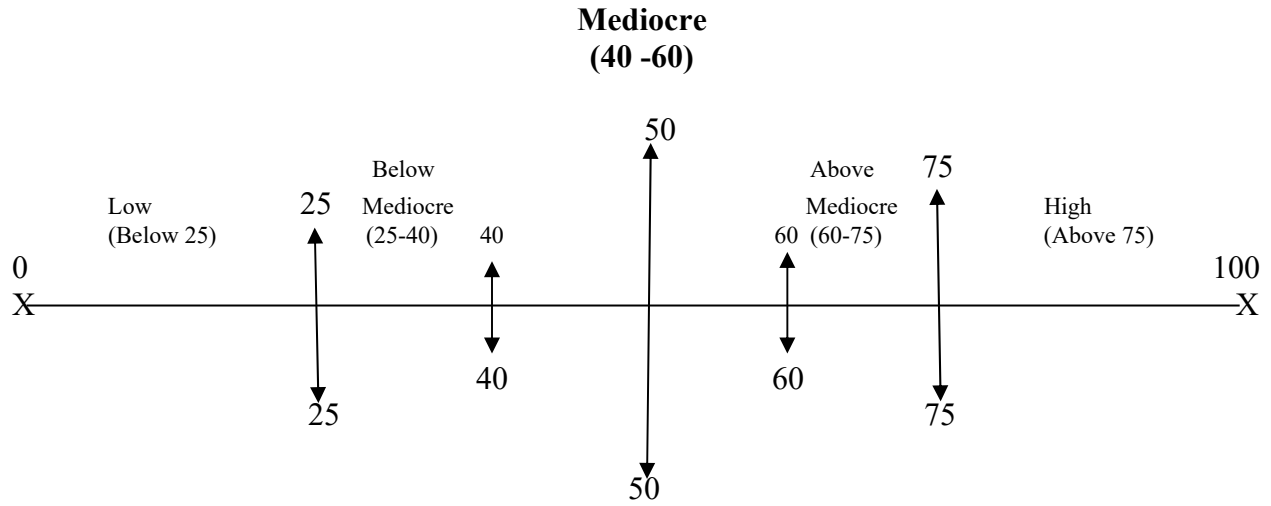
6. I am emotionally poised. A B C

7. I express my emotions in refined ways.   A   B   C

8. I express my feelings in socially approved ways.   A   B   C

9. I express my finer sentiments freely.   A   B   C

10. I love my family.   A   B   C

11. I love my relatives.   A   B   C

12. I love my friends.   A   B   C

13. I love my job.   A   B   C

14. I have zeal, zest and enthusiasm for life.   A   B   C

15. I employ cognitive strategies (reasoning) to solve my problems.   A   B   C

16. I learn how to pull on with unsolved problems.   A   B   C

17. I accept myself.   A   B   C

18. I accept others.   A   B   C

19. I do not compete with others.   A   B   C

20. I do not compare myself with others.   A   B   C

21. I am self-reliant.   A   B   C

22. I make others happy.   A   B   C

23. I help others in need.   A   B   C

24. My interpersonal relations are healthy.   A   B   C

25. I deserve before I desire.   A   B   C

26. I identify stressors and deal with them resourcefully.   A   B   C

27. I employ relaxation techniques when situation demands.   A   B   C

28. I subject myself to periodic meditation.   A   B   C

29. I set for myself reachable goals.   A   B   C

30. I have frustration tolerance.	A	B	C
31. I identify conflicts and resolve them.	A	B	C
32. My decisions are fairly good.	A	B	C
33. I am socially oriented.	A	B	C
34. I work towards personal development.	A	B	C
35. I work towards professional development.	A	B	C
36. I develop in myself positive personality traits.	A	B	C
37. I comply with ethical and moral principles.	A	B	C
38. I cherish and practise basic human values.	A	B	C
39. I employ periodically physical release of tension.	A	B	C
40. I employ healthy avenues of catharsis (emotional release)			
– by talking things over to my (resourceful) well wishers.	A	B	C
41. I have faith in God.	A	B	C
42. I surrender myself to God.	A	B	C
43. I set my life in order.	A	B	C
44. I abide by my own personal and professional ethics.	A	B	C
45. I have healthy sense of humour (non-hostile and non-aggressive).	A	B	C
46. I take my disappointments and failures very sportively.	A	B	C
47. I seek self-fulfillment in my personal life.	A	B	C
48. I seek self-fulfillment in my professional life.	A	B	C
49. I have a life mission.	A	B	C
50. I stand committed to my life mission.	A	B	C

Scoring: 2, 1, 0 for A, B, C respectively.

Maximum possible score is 2 x 50 = 100.

A scale to assess one's Mental Health

Mediocre
(40 -60)

		50		75	
	Below		Above		
Low	25 Mediocre		Mediocre		High
(Below 25)	(25-40) 40		60 (60-75)		(Above 75)
0					100

X———————————————————————————————X

40

60

25

50

75

A Sound Mental Health facilitates a healthy life style.

7.50 Defensive Behaviour Inventory

(Structured by S. Sathiyagirirajan)

Read each of the following statements and indicate your reaction by drawing a circle around the appropriate letter (A, B, or C). Do not skip any statement unresponded.

A -   To a substantial extent / Nearly /Often

B -   To some extent / Somewhat / Sometimes

C -   To a negligible extent / Uncertain / Rarely

1. I am lost in thoughts.	A B C
2. I try to save my face in the event of failure.	A B C
3. I attribute my negative motives to others.	A B C
4. I give feasible false excuses for my non-performance.	A B C
5. I deliberately seek the company of high achievers in my field	A B C
6. I forget my failures.	A B C
7. If I am ill treated by someone, I will ill treat someone else.	A B C
8. I become physically indisposed when I am assigned a difficult task.	A B C
9. I hide my genuine feelings.	A B C
10. I am envious of others' achievements.	A B C
11. I perceive realities.	A B C
12. I admit my limitations.	A B C
13. I admit my ill feelings.	A B C
14. I admit my failure.	A B C
15. I avoid comparison of my achievements with others'.	A B C
16. I learn from unpleasant experiences.	A B C
17. I disapprove politely hostile reaction of even powerful people.	A B C

18. Emotional disturbance does not affect me physically.   A   B   C

19. I am politely straightforward in my reactions.   A   B   C

20. I recognize and appreciate the achievements of others.   A   B   C

21. I warm myself in pleasant fantasy.   A   B   C

22. I project my merits to cover my limitations.   A   B   C

23. I defend myself by offending others.   A   B   C

24. Goals within my reach only seem to be valuable.   A   B   C

25. I try to gain the friendship of high achievers in my field.   A   B   C

26. I forget any situation that tarnishes my self-image.   A   B   C

27. When I cannot retaliate the hostile behaviour of some people,
    I become hostile to some other people.   A   B   C

28. I become physically indisposed, when I am assigned any
    unpleasant task.   A   B   C

29. I fake my reactions.   A   B   C

30. I overestimate my achievements.   A   B   C

31. I avoid escaping from the real world.   A   B   C

32. I identify my deficiencies and deal with them resourcefully.   A   B   C

33. Others are not responsible for my negative thoughts/feelings.   A   B   C

34. I identify causes for my non-performance.   A   B   C

35. I avoid basking in others' glory.   A   B   C

36. I identify behaviours of mine inconsistent with my self-image.   A   B   C

37. Even when I am snubbed or humiliated by my superiors
    I avoid snubbing or humiliating my subordinators.   A   B   C

38. When I am physically indisposed I try to find whether

it is the result of some emotional disturbance.   A   B   C

39. I express my genuine reactions in refined ways.   A   B   C

40. I assess my achievements objectively.   A   B   C

41. I am a day dreamer.   A   B   C

42. I avoid performing tasks which expose my deficiencies.   A   B   C

43. I think people generally seem to be negativists.   A   B   C

44. I discover 'good' reasons to cover 'real' reasons for my

    inability to perform a task.   A   B   C

45. I would like to be in the social network of high achievers.   A   B   C

46. I forget unpleasant experiences.   A   B   C

47. Since I cannot express my negative feelings or emotions in my

    work spot or social situations, I displace them towards people

    close to me.   A   B   C

48. I become physically indisposed when I am not able to

    solve a problem.   A   B   C

49. I express socially approved reactions even when my genuine

    reactions are otherwise.   A   B   C

50. I deliberately underestimate the achievements of others.   A   B   C

Scoring: 2,1,0 for A,B,C respectively (for items 1 – 10; 21-30; 41-50)

             0,1,2 for A,B,C respectively (for items 11 – 20; 31 – 40)

   Maximum possible score for each behaviour 5 x 2 = 10

Scoring sheet

Defensive Behaviour	Statements	score
1. Day dreaming	1,11,21,31,41	
2. Compensation	2,12,22,32,42	
3. Projection	3,13,23, 33, 43,	
4. Rationalization	4,14,24,34,44	
5.Identification	5,15,25,35,45	
6. Repression	6,16,26,36,46	
7.Displacement	7,17,27,37,47	
8.Conversion	8,18,28,38,48	
9.Reaction Formation	9,19,29,39,49	
10.Belittling	10,20,30,40,50	

Defensive Behaviour Profile

Coping ←——————————————————————————→ **Defensive**

Defensive Behaviour	0	1	2	3	4	5	6	7	8	9	10
1. Day dreaming											
2. Compensation											
3. Projection											
4. Rationalization											
5.Identification											
6. Repression											
7.Displacement											
8.Conversion											
9.Reaction Formation											
10.Belittling											
Defensive Behaviour	0	1	2	3	4	5	6	7	8	9	10

Coping ←——————————————————————————→ **Defensive**

Coping (problem solving) behaviour facilitates mental health.

Defensive (face saving) behaviour debilitates mental health.

7.60 Self – Evaluation

Multiple choice items:

Choose the most appropriate / the best response out of the four options that follow the stem.

1. The science of dealing with the preservation of Mental Health is…..

    A. Positive Psychology   B. Mental Hygiene

    C. Science of Life Skills   D. Self-actualization   ( )

2. Which life style implies service to others

    A. The meaniful life   B. The pleasant life

    C. The good life   D. The happy life   ( )

3. Job satisfaction is facilitated by….

    A. Job elevation   B. Job rotation

    C. Job enrichment   D. Job situation   ( )

4. Which is the best way to win an argument?

    A. To avoid it   B. To accept defeat

    C. To prolong the process   D. To seek others' support   ( )

5. If you are confronted with problems, employ…. Strategies

    A. Resourceful   B. Cognitive

    C. Sentimental   D. Situational   ( )

6. When there is a clash between two motives, it is a case of…

    A. Stress   B. Conflict

    C. Frustration   D. Anxiety   ( )

7. Defensive Behaviour is……Behaviour

    A. Face saving   B. Problem solving

    C. Coping   D. Infradig   ( )

8. When one feels that one is not so effective or satisfied as one used to be, it is a case of…

    A. Alienation   B. Job dissatisfaction

    C. Low job performance   D. Burnout   ( )

9. If you give feasible false excuses for your poor performance it is a case of…

    A. Projection   B. Rationalization

    C. Displacement   D. Reaction formation   ( )

10. Faking physical indispositions for non-performance is a case of…

    A. Belittling   B. Identification

    C. Conversion   D. Compensation   ( )

Key: 1. B	2. A	3. C	4. A	5. B
6. B	7. A	8. D	9. B	10. C

8.00 GUIDANCE AND COUNSELLING

Content outline:

(Guidance defined – Types of Guidance – Counselling defined – Characteristics of a Counsellor – Symptoms of Maladjustment – Psychology of Adolescence – Specific guidelines to the student population for self-enrichment – Counsellor Competency – Self Evaluation)

8.10. Guidance is the process of helping individuals through their own efforts to discover and develop their talents and potentialities for personal happiness and social usefulness.

Help the student   - discover himself (potentialities)

-develop himself (enrichment)

-be happy and useful to society
(making the best use of his potential)

8.20. **Types of Guidance**

- **Educational** Guidance (course choice and academic achievement through evaluation of intelligence, aptitude and personality)

- **Vocational** Guidance

Assessment of Aptitude / Interests / Openings (opportunities)

To help the youth evaluate himself, make a vocational choice, plan learning programmes, place him in work, follow up on the work assignment (to ensure results)

- **Personal** Guidance

To help the youth develop personal qualities to achieve success and happiness in personal life – to face and solve personal problems – self improvement

8.30**. Counselling**

- The student, at times, is in state of indecision, confusion or distress. He seeks specific assistance from some person who is willing to interact with him so that he may take a decision, resolve his confusion or cope with his distress. This meaningful, purposeful goal-oriented interaction is what is called counselling.

    Guidance is general.

    Counselling is specific.

    Counselling is an accepting, trusting and safe relationship between the counsellor and the counsellee.

8.40 **Characteristics of an effective Counsellor**:

- Genuine concern for the counsellee

- Non-identification (healthy separateness)

- Social sensitivity (awareness of various forces which influence the counsellee)

- Objectivity (no personal whims or fancies)

- Self - assessment

- Willingness and ability to listen

- Sympathy and empathy

- Unconditional positive regard for the counsellee

- Knowledge and judgment of human behaviour (applied psychology)

- offering precise and concrete solution to the counsellee

Problem Student:

"The so-called problem student is really a student with a problem"

8.50 **Symptoms of Maladjustment**:

Behaviour Deficits:	Behaviour Excesses:
- Isolation / Alienation	- Overeating / Oversleeping
- Delinquency (out of the way behaviour)	- Smoking / Alcohol /Gambling / Drug addiction
- Depression (gloominess)	- Temper outbursts
- Speech defects	- Physical aggression

8.60. **Psychology of Adolescence**

It is a period of transition from childhood to adulthood – the teenage period – the in between years (13 to 19 years of age). Students who enter a college will be around 17 (at the advent of later adolescence). **Stanley Hall** called this period as one of 'storm and strife' and 'stress and strain'. Knowledge of psychology of adolescence ('neither here nor there period) will facilitate teachers in Higher Education offer effective guidance and counselling to their students.

Adolescent Characteristics and Developmental Tasks:

(Developmental tasks facilitate proper growth and development)

Characteristics	Developmental Tasks
A. Physical - Physical maturity / puberty - Variations in maturation - Clumsy appearance / behaviour - Sexual maturity / drive	Physical exercises: Nutritious diet
B. Mental (Intellectual) - Maximum intellectual efficiency - Search for a theory of life - Hero-worship - Search for a role model	- Assessment and acceptance of one's abilities / talents - Select and prepare for an occupation - Civic competence - Values / ethics

C. Social
 	
  - Dominance of peer group
  - Conflict between peer code and adult code
  - Attracted by the opposite gender
  - (Girls are more mature than boys of the same age)
	- Acceptance by the opposite gender
	- Acceptance of one's gender role
	- Sex education
	- Resolution of conflict between the peer code and the adult code

D. Emotional
 	
  - The adolescent revolt is universal
  - A sense of independence
  - Day dreaming
  - Difficulty in assessment of self
	- Guided independence
	- Sympathetic and empathetic approach
	- Personal guidance and counselling
	- No sermonizing (only guidelines)

8.70. **Specific Guidelines**

(to the student population: an orientation for adulthood)

(i) Self Development (Accept, assess and enrich your potential)

You are as important as anyone else in this world (even if you are not superior to others); you have a right to live a successful and happy life - to lead a healthy life style. This right implies several duties and responsibilities. If these duties and responsibilities are discharged satisfactorily, your rights and privileges for a successful and happy life will be realized. Success itself implies how to discharge your duties and responsibilities to yourself and others - the members of your family, relatives, friends and fellow-members of the society. Effective discharge of duties and responsibilities makes you happy because you make others happy.

The first step in this direction is accept yourself (your nature – your heredity your inheritance; you are unique). Accept your potential-physical and mental; 'know thyself' is an oft

quoted appeal but unfortunately rarely implemented objectively. It implies objective self-assessment; self-assessment covers one's physical, mental, emotional and social aspects of one's personality.

In assessing yourself your potential and performance you are likely to compare yourself with others. Though psychologists do not advocate comparison, you are bound to do it since it is human nature. In this case you can avoid unjust comparison, avoid comparing yourself with people with potential superior or inferior to yours.

You can compare your performance with that of those with your potential level. If they are more successful than you are then study their ways and means of achieving success. If they are just, ethical and in accordance with your aptitude, there is no harm in employing them; otherwise employ your own ways and means of reaching your goals. Avoiding comparison altogether is ideal. Avoiding unjust comparison is practical.

Avoid competition. Mass media of the day portray the world as a competitive one and frighten the youth of the day by suggesting to them, 'unless you excel, outdo the performance of your fellow job-seekers you cannot survive (survival of the fittest). When competition was introduced in olden days, the original objective was to make the participants give their best. You need not compete with others; compete with yourself (with your earlier performance); self-competition is the best competition. Achievement is giving your best. Topping the list is incidental.

Today there are several reliable agencies (social organizations) Institutions, University Departments which can help you in assessing yourself in physical, mental, emotional and social aspects of your personality. Further mass media of the day – TV, Radio, Newspapers, Magazines

and Journals can also help you in assessing yourself. However, beware of fake psychologists. They play havoc with the mental health of the youth of the day.

Correct self assessment is a basic requirement for one's success and happiness – neither over- estimation nor under-estimation. Between the two, under-estimation is less harmful. If you underestimate your potential in the early years, you may realize your mistake later and you are likely to become a late bloomer. But if you over-estimate your potential, it is quite likely you will meet with frustration sooner or later and end up as a 'never bloomer'.

Objective and correct self- assessment followed by optimum self enrichment leads you to success and happiness. You must make the most of yourself (it does not necessarily mean being the best); make most of your potential and strive to become the best possible human being.

(ii) Self Management:
   -Be organized

Organization implies orderly arrangement of things. Organize yourself first – the physical aspects of your personality. Organize your home and work place. Every item must have a place - its most appropriate place. Items taken from their places for use must be duly brought back to their original place after use.

Organize your work, exercise, rest and sleep. Always prepare a check list for the work to be done-daily, weekly, monthly and long term–one for home related and the other for job-related. Even for shopping prepare a check list. For any outstation trip prepare a check list on what to carry with you and what to do in places you visit.

Manage your Time

Manage your time effectively. Don't overwork and become a burnout. Have a feasible schedule of work (personal as well as professional) daily, weekly, monthly and long time planners. Don't waste your time in gossip, idle work, in wasting others' time ('Time is precious; yours as well as others'). Identify your time wasters, for example, overuse of gadgets, like excess TV viewing or getting tied to Mobile or any others such gadget.. Any gadget addiction is as dangerous as drug addiction. Time wasters waste your time and energy and subsequently make you ineffective for useful work.

Cultivate hobbies which make you personally happy and socially useful. When you are physically, mentally or emotionally restless, listen to music of your choice. This will give you a soothing effect – regenerating and rejuvenating. It is possible to do better work in less time if you are mentally and physically refreshed. Strike a balance between work and leisure.

A life without time for your loved ones is a life wasted; and your work will be less fulfilling if it does not allow you to spend quality time with the members of your family, close friends and relatives.

Manage your Finances

Effective financial management will lead you to success and happiness. Have a monthly, annual budget – reasonable and feasible based on your earnings. Save sufficient money – of course not at the cost of your health and depriving yourself of your essential needs. (It is not what you earn but what you save that makes you financially secure). Savings will give you a sense of social security subsequently. Save not only in bank deposits but in other reliable sources as well. There are reliable agencies which can furnish you with essential information in this connection.

Don't waste money. Don't purchase things which you don't require. Free yourself from 'impulsive buying'. Don't compare yourself with others in amassing possessions which you don't require. Don't yield to peer pressure in wasting money.

Money thus saved is to be used properly – (a part, of course, in charity) in purchasing essential and useful homeware, in essential personal equipment, in owing a house, in lifelong education or in any attempt of human resource development (in developing socially useful skills).

Cultivate Reading Habit

Cultivate reading as a habit. You can identify books that appeal to you for pleasure (intrinsic worth) or for profit (extrinsic worth). Gradually build a personal library by earmarking a specific percentage (affordable) of your income for the purchase of books. Books will appeal to your 'Heart' as well as to your 'Head'. Books will enrich your knowledge and expose you to new visions and new vistas and help you, towards moral and spiritual elevation. Books are your unfailing friends sharing your 'smiles' (joys) and 'sighs' (sorrows); when you are depressed books will help relieve you of your depression (Bibliotherapy). You need not be a 'voracious' reader but be a 'judicious' reader. The implication is that you can choose good and standard books and read them, review them and reflect over them.

> Books are keys to wisdom's treasure;
> Books are gates to lands of pleasure;
> Books are paths that upward lead;
> Books are friends, come, let us read.

Maintain a Personal Diary

Your personal diary is purely personal (not official or professional). It outlines your thoughts, ideas and reactions - a mini autobiography recording striking incidents and your

achievements and failures – what and why you have done, what and why you have not and what and why you ought to have.

In addition you can also record nice thoughts, ideas, and anecdotes, jokes you happen to read in newspapers, magazines and journals or shared by others in a gathering, or in person. You can also record the books and articles that appeal to you and striking lines from them. You can also record about people with whom you happen to interact and who appeal to you. If you maintain your personal diary for years, you can identify changes in your attitudes, and approaches and you can assess your performance towards achievement of goals you set for yourself. Further a personal diary is an outlet for your emotional release – catharsis and this promotes your mental health.

At the advent of every new year you can review your diary so that you can perceive a self portrait – the various forces operating in your psychological field. Such a picture will help you to prepare yourself for the New Year – your commitment to your mission and ways and means you are likely to employ to reach your goals.

A personal diary is also a blue print for future since you indicate in it what you have achieved and what you have not; what went right and what went wrong and why; how to achieve goals which you cherish and deserve step by step. There are no rigid rules and regulations on what you write in your diary. Start maintaining a personal diary and start writing whatever you feel like writing. Gradually over the years, you will learn your own way of maintaining it. A personal diary is a boost to your attempts of self enrichment.

Goal Setting

Once you have accepted yourself and assessed yourself objectively and taken adequate measures to enrich yourself it will be relatively easy for you to trust yourself – your potential to achieve a specific standard of excellence and set for yourself **SMART** goals. **SMART** is an abbreviation for the following five attributes.

S ⟶ Specific

M ⟶ Meaningful

A ⟶ Attainable

R ⟶ Relevant

T ⟶ Time bound

A specific goal defines your specific efforts; a meaningful goal adds meaning to your life; an attainable goal develops in you a high degree of self-confidence, a relevant goal paves the way for your career advancement; a time bound goal makes you give your best efforts to reach the goal at the appropriate time. Your goal must be challenging but realistic; be ambitious but don't strive for the impossible by wasting your time and energy and subsequently meeting with frustration.

There will not be a single goal for you; there will be a series of sequentially linked goals to be achieved in a phased manner. If these goals are reachable and worthy, reaching them one by one will make you successful and happy. The very process of reaching your goals (step by step) will make you feel successful and happy. In other words, ends as well as means will make you

successful and happy. When you set goals for yourself; merit is the first criterion. Desire what you deserve; choose goals that match not only your intelligence but your personality as well.

Emotional Balance

Even in the most disturbing situations at the onset of intense negative emotions, if we apply 'reasoning' emotions do not surge up or affect our biological system. The emotional response is nullified by application of reasoning. Reasoning blocks emotion. Emotion blocks reasoning.

Extreme emotionality affects the personality of the individual, his life style. It disturbs his emotional equilibrium (poise / balance). A free play of emotions does not have social approval.

Expression of pent up emotions through socially approved and refined ways will relieve the individual of his emotional load-clutter. Physical release of tension is facilitated by manual labour - physical exercises, sports, games domestic and household work. 'Talking it out' with close friends relatives / well wishers / counsellors (if need be) will provide meaningful catharsis (emotional release).

The following emotionally charged reactions play havoc with one's emotional health and thereby one's life style.

- Phobias (irrational fears)
- Manias (overexcited reactions)
- Irrational sentiments
- Prejudices (negative attitudes based on hasty generalizations)

Implications:

- Be emotionally poised

- Express your feelings and emotions in socially approved and refined ways

- Be emotionally stable

- Employ healthy avenues for catharsis - physical release, dialogue

- Avoid unpleasant, excited and tense situations

- Make situations pleasant, calm and relieved

- Employ 'Reasoning' at the onset of intense feelings / emotions

- Avoid behaviours which cause annoyances to others

- Understand the feelings and emotions of others

- Free yourself from Phobias, Manias, Prejudices and Irrational sentiments.

8.80 **COUNSELLOR COMPETENCY**

How effective will you be as a Counsellor?

(Tool structured by S. Sathiyagirirajan)

Indicate your response (Y – Yes; N – No) to the following questions:

1.	Do you feel at home with students?	Y	N
2.	Do students feel at home with you?	Y	N
3.	Are interpersonal relations with your students healthy?	Y	N
4.	Are you approachable and accessible to students who seek your assistance?	Y	N
5.	Do students approach you for taking a decision?	Y	N
6.	Do students approach you for solving their problems?	Y	N
7.	Are you genuinely interested in student welfare?	Y	N
8.	Do students take you into their confidence?	Y	N
9.	Are you sensitive to various socio-cultural-psychological-political forces that influence student population?	Y	N
10.	Are you free from personal whims and fancies?	Y	N
11.	Are you aware of your merits and limitations?	Y	N
12.	Do you listen to students when they air their grievances?	Y	N
13.	Do you pay attention to emotional release of students?	Y	N
14.	Can you accept even ill-mannered students?	Y	N
15.	Can you view problems from the students' point of view?	Y	N
16.	Do you treat students on compassionate grounds?	Y	N
17.	Can you assess and judge human behaviour objectively?	Y	N
18.	Do you have a sound theory of life based on morality and ethics?	Y	N
19.	Can you help students develop a sound theory of life based on morality and ethics?	Y	N
20.	Can you help students with precise and concrete solutions to their problems?	Y	N

Scoring: Y – 1; N – 0 Perfect score: 20 x 1 = 20

Self – Evaluation

Multiple choice items

Choose the most appropriate / the best response out of the four options that follow the stem:

1. Guidance implies…..

    A. Self – discovery and self – development
    B. Self – assessment and self - acceptance
    C. Self – evaluation and self – satisfaction
    D. Self – enrichment and self – elevation   (   )

2. 'Course choice' is an aspect of……

    A. Personal guidance
    B. Vocational guidance
    C. Educational guidance
    D. None of the above   (   )

3. The objective of counselling is to help the student to……

    A. Take a decision
    B. Resolve his confusion
    C. Cope with his distress
    D. All of the above   (   )

4. The final phase of counselling is…

    A. Sympathy and empathy
    B. Precise and concrete solution
    C. Unconditional positive regard
    D. Genuine concern for the student   (   )

5. Student counsellors in Higher Education should have a sound knowledge of psychology of

    Adolescence because their students are likely to be in their……..

A. Early adolescence

B. Middle adolescence

C. Late adolescence

D. Extended adolescence   (   )

6. Self – development implies……

   A. Self – assessment   B. Self – acceptance

   C. Self – enrichment   D. All of the above   (   )

7. Getting relieved of depression by reading books is called….

   A. Psychotherapy   B. Sociotherapy

   C. Bibliotherapy   D. None of the above   (   )

8. 'Career Advancement'. Which letter of the abbreviation '**SMART**' goals

   does 'this imply?

   A. S – specific   B. M – meaningful

   C. T – time bound   D. R – relevant   (   )

9. 'Talking it out' with close friends implies…..

   A. Lively conversation   B. Emotional release

   C. Counselling   D. Guidance   (   )

10. Negative attitudes based on hasty generalization are called…

   A. Prejudices   B. Phobias

   C. Manias   D. Irrational sentiments   (   )

Key:	1. A	2. C	3. D	4. B	5. C
	6. D	7. C	8. D	9. B	10. A

9.00 EVALUATION

Content outline:

(Definition – Classification – Evaluation Model – Achievement Tests – Types of – Principles of Test Construction – Stages – Item Analysis – Characteristics of an effective test – Self – Evaluation)
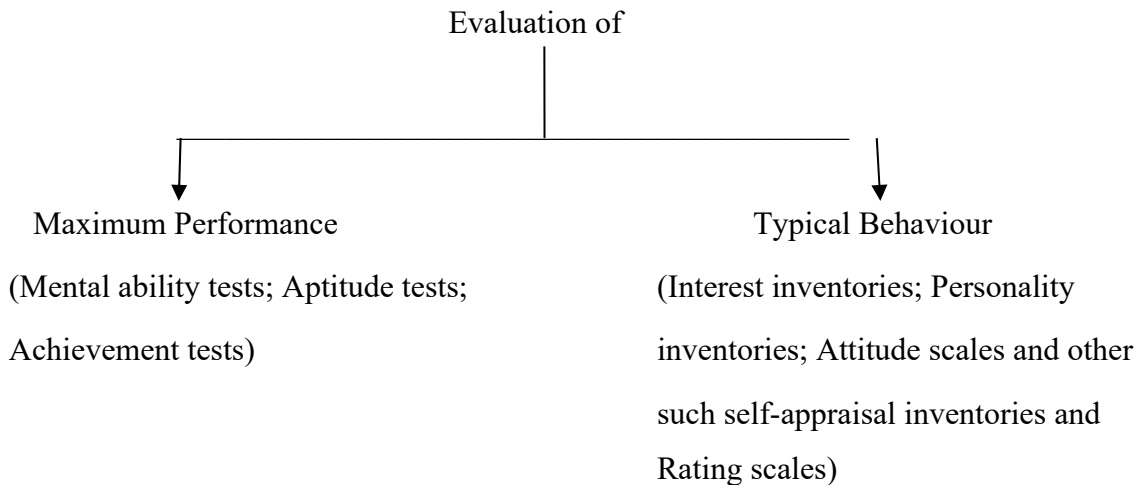
9.10. What **is Evaluation?**

Evaluation is the process of finding the extent to which the instructional objectives are realized – a feed back to effectiveness of teaching and assessment of student learning performance.

> Teaching = Instruction + Evaluation

Instruction refers to classroom presentation – lesson presentation – presentation of academic content (by the teacher). Instruction and evaluation are equally important. They are complementary. Evaluation refers to assessment of the learner's outcome (by the teacher)

9.20 **Evaluation Classified**

Evaluation of

Maximum Performance
(Mental ability tests; Aptitude tests; Achievement tests)

Typical Behaviour
(Interest inventories; Personality inventories; Attitude scales and other such self-appraisal inventories and Rating scales)

9.30 **Evaluation Model**

(indicating functional classification)

Entry Stage	**Enroute** **Course / Programme**	**Exit** Stage
A. **Prognosis** and Guidance	B. **Diagnosis** (to locate learning difficulties) and Remediation C. **Formative Evaluation** (Monitoring learning progress) [B and C run in parallel]	D. **Summative** Evaluation (Assessment of learner outcome) – global achievement

At the **Entry Stage**

Prognostic evaluation serves effectively in predicting future achievement of students; it is employed to analyse their present status of mastery and to predict future achievement. It is used for the purpose of taking stock of the situation – knowledge and abilities of the students – their learning readiness to undergo the course or programme. Prognosis is followed by guidance – individual guidance to the students based on their performance – guidelines on how to undergo the course / programme effectively and give their best in terms of achievement at the exit stage.

Enroute (Course / Programme)

Diagnostic evaluation is to identify the learning difficulties (the term 'diagnosis' has been borrowed from 'healthcare'). Once difficulties are identified, remedial programmes are initiated and conducted so that students surmount those difficulties. These learning difficulties may be due to gaps in knowledge and skills or inadequate mastery of the academic discipline taught to them.

Formative evaluation is administered through periodic tests (weekly / monthly) – written or oral. The purpose is to monitor learning progress – to find whether students are learning effectively the units taught to them. Are they going on the right track? – (Formative means 'shaping') Diagnostic evaluation and formative evaluation run in parallel. They supplement and complement each other. Both lead the students safely from the entry stage to the exit stage.

Exit Stage

Summative evaluation assesses the exit learning performance of the students (global achievement) – the outcome of the course in terms of knowledge and abilities – to find whether they are ready for the subsequent course ('summative' means 'cumulative').

Some authors bring out the difference between 'Test' and 'Examination'. Test stems from the Latin word 'Testum' which refers to a melting pot used to find the amount of gold in any base metal. Examination stems from the Latin word 'Examen' which means 'Balance'. One can easily infer the difference between 'Test' and 'Examination' nowthat one has been exposed to the meanings of the root words from which they originated. The tester asks, 'I told you this; Do you remember this? On the other hand the examiner asks, 'This is required of you; Can you do this?'

Tests are employed for Formative Evaluation, Prognosis and Diagnosis.

Examinations are employed for summative evaluation.

To Sum Up,
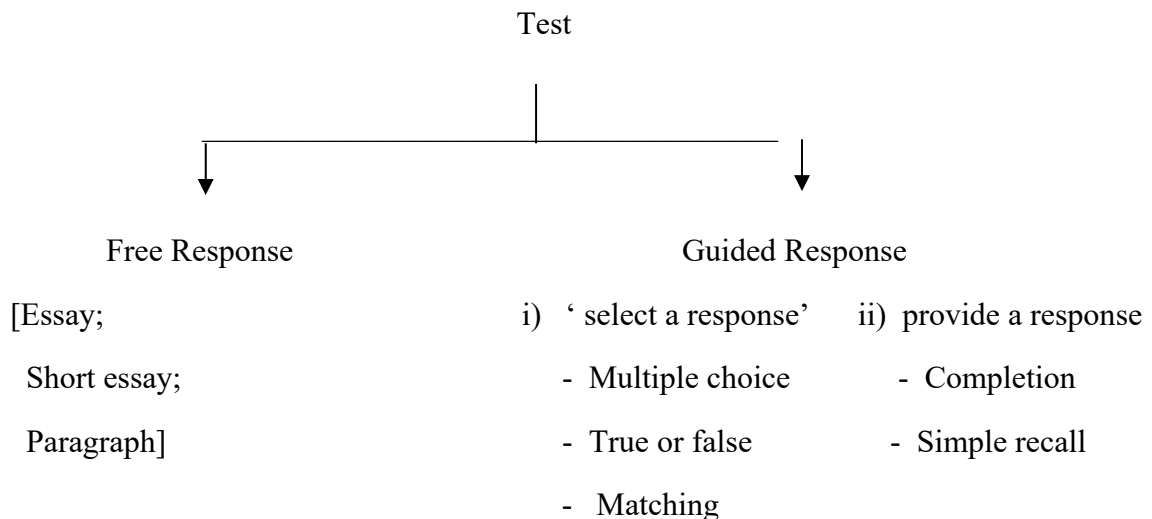
Prognostic evaluation leads to quality prediction.

Diagnostic evaluation leads to quality improvement.

Formative evaluation leads to quality assurance

Summative evaluation leads to quality assessment

9.40 Achievement Tests

9.41 Types of Test (structural classification)

Test

Free Response | Guided Response

[Essay;   i) ' select a response'   ii) provide a response

Short essay;   - Multiple choice   - Completion

Paragraph]   - True or false   - Simple recall

   - Matching

9.42 Free Response

Essay (short essay or paragraph) item requires the student to make a comparison, write a description, or explain certain points. The student is allowed freedom of expressions in analyzing; comparing, describing or reasoning. Essay items have been criticized on basis of

- Lack of content validity ('what to write' is not specified; it allows the students for 'freelancing')

- Subjective scoring (handwriting / 'Halo' effect impressing the examiner with the first paragraph or quoting from his favorite scholars and such other factors; number of pages also counts for certain examiners; trading on examiner's ignorance (ie) making certain observations not known to the examiner; colour works; unwanted diagrams / flow charts to impress the examiners; some students intentionally choose baffling (ambiguous questions) so that they can baffle the examiner back).

Points to be considered in constructing Essay items.

- Decide upon the objectives to be assessed

- Call for specific answers

- Require the student to 'compare', 'explain why', 'describe' or 'tell how' not to 'list' or 'enumerate'

- Determine definite specifications for marking.

How to improve Essay items?

An illustration:

Examine the qualities of leadership associated with Satan in Paraside Lost, Book I **(Original)**

Improvement Phases:

1. Identify five leadership qualities in Satan as manifest in Paradise Lost, Book I.

2. Satan is portrayed by Milton as possessing striking leadership qualities in Paradise Lost, Book I. Identify five such qualities citing appropriate situations and relevant lines.

3. Satan, as portrayed by Milton, possesses the following leadership qualities: Initiative and Drive, Motivational Skills, Effective Communication, Concern for Co-workers, Human Relations Skills. Examine this statement, in about 750 words, by quoting appropriate situations and relevant lines.

9.43. **Guided Responses** (objective type)

The essential features of a test of objective items are that the examinee.

- Operates within an almost completely structured task

- Selects one of the limited number of options

- Responds to each of a large sample of items (adequate content coverage)

- Receives a score for each response in accordance with a scoring key (scoring is easy and objective).

9.43.1. **Multiple choice items**

A multiple choice item consists of a question or an incomplete statement followed by several possible responses. The student must select the right / the most appropriate / best response.

The question or the incomplete statement is called **Stem**.

The several possible responses that follow the stem are called **Responses**.

The right / correct / most appropriate / best response is called **Keyed Response**.

Other responses are called **Distractors** (since they distract the student from the keyed response).

Illustrations:

Right answer type

Summative evaluation leads to…. (or what does summative evaluation lead to?)

A) Quality prediction   B) Quality improvement

C) Quality assurance   D) Quality assessment   [KR: D]

Best answer type

   -   The fame of Shakespeare rests primarily on his…

A) Philosophy   B) Characterization

C) Plot construction   D) Lyrical intensity   [KR : B]

   -   What is the square root of 9?

(A)   3   (B)   +3   (C) ± 3 (D)   -3   [KR : C]

9.43.2 Principles of Construction:

   i.   The <u>stem</u> must clearly state a problem.

   ii.   Include as much of the item as possible in the <u>stem</u>.

   iii. Don't load the stem with irrelevant material.

   iv.   Be sure there is only one correct answer. (In 'correct answer' type)

   v.   Beware of clang association (key word of the stem and keyed response may sound alike).

(e.g. Which of the following inventory attempts to study abnormal behaviour?

A. Guilford – Zimmerman Temperament Survey

B. Edwards Personal preference Schedule

C. Minnesota Multiphasic Personality Inventory

D. Cattell 16PF questionnaire

(the key word of the stem-inventory tallies with the last word of 'C')

vi) Beware of grammatical clues

(e.g.   The test which attempts to assess the present status of mastery in reference to future terminal performance is an…

A. Diagnostic test

B. Survey test

C. Entry behaviour test

D. Mastery test

(The examinee can easily identify the right response)

vii) As far as possible avoid use of 'some of these', 'none of these', 'all of these' or 'all of the above'

Unless when you are not able to identify an appropriate distractor (they can be used as 'fillers') and unless these really indicate the most appropriate responses.

viii) Use the 'negative' only sparingly.

ix) Distractors must be capable of distracting

(e.g. Which personality inventory is the most popular among Indian Researchers?

- Binet- Simon Intelligence scales

- Stanford Teacher Competence Appraisal Guide

- Cattell's Personality Factor Questionnaire

- Strong Vocational Interest Blank).

   (The examinee can easily identify the right response)

9.43.3. **Bloom's Taxonomy** (Cognitive Domain)

Knowledge	-	Can students recall ideas?
Comprehension	-	Can students explain ideas?
Application	-	Can students use ideas?
Analysis	-	Can students split a main idea into a number of subsidiary ones?
Synthesis	-	Can students combine a number of subsidiary ideas and arrive at a main one?
Evaluation	-	Can students make judgements on ideas?

Illustrations

1. Knowledge

   The purpose of Formative evaluation is….

   A) Guidance   B) Remediation

   C) Monitoring progress   D) Global achievement   (   )

2. Comprehension

   What is meant by 'Temperament'?

   A) Typical mood   B) Ethical code

   C) Inter harmony   D) Mind set   (   )

3. Application

   Which type of test is employed to locate learning difficulties?

   A) Formative   B) Summative

   C) Diagnostic   D) Prognostic   (   )

4. Analysis

   The process of prognostic evaluation will be in complete without…

   A) Guidance   B) Remediation

   C) Monitoring   D) Assessment   (   )

5. Synthesis

   The one need that implies all other needs of an adolescent is…..

   A) Academic support   B) Sympathetic approach

   C) Sense of independence   D) Emotional support   (   )

6. Evaluation

   In multiple choice items which of the following aspect of memory is tested.

   A) Registering   B) Retaining

   C) Recalling   D) Recognising   (   )

9.43.4. Multiple choice items – Situational

<u>Illustration:</u>

Sam tried to test the idea that sunlight facilitates the growth of plants. He put similar plants in similar pots filled with similar soil. He placed one pot in the dark and the other in the sunlight. He poured the same amount of water on each plant each day. After about a month he measured the plants. The plant that had been in the sunlight had grown 8 cm. The plant that had been kept in the dark had grown 5.5 cm.

1. What is Sam's idea that "sunlight helps plants grow' called?

   A. Theory

   B. Fact

   C. Hypothesis

   D. Criterion

   E. Correlate   [KR : C]

2. Which of the following variables was kept the same in this experiment?

   A. Amount of water

   B. Period of time

   C. Type of plant

   D. Type of pot

   E. All of the above   [KR : E]

3. What probably caused the two plants grow differently in this experiment?

   A. Sunlight

   B. Season

   C. Soil

   D. Type of pot

   E. Climate   [KR ; A]

9.43.5. **Correction Formula:**

There is scope for guessing the keyed responses without knowing them. To avoid guessing – To penalize indiscriminate guessing, marks will be deducted for wrong answers. The correction formula is as follows.

$$S = R - \frac{W}{(n-1)}$$

S……..Score   R…… Right answers

W….. Wrong answers   n…… number of options

(If number of options is 5, then for every 4 wrong answers, 1 mark will be deducted).

9.44. **True – False** Items

The true – false (alternate response) item consists of a simple statement that may be either true or false.

E.g.   The key indicator of mental health is emotional balance   T   F   [KR : T]

Cluster True – False

It consists of an incomplete statement followed by several phrases / clauses / sentences which may be true or false.

E.g.   A behavioural manifestation of adjustment is:

- Positive perception of others   T   F
- Extrinsic motivation   T   F
- Healthy interpersonal relations   T   F
- Concrete intelligence   T   F
- Positive perception of life   T   F

                                      [KR : T;   F;   T;   F;   T]

9.45. **Matching items:**

E.g. on the left column there is a list of the names of psychologists. On the right column there is a longer list of some concepts in psychology. Match each item of the left with an appropriate item on the right.

L	R
1. Thorndike	A. Achievement motivation
2. Thurstone	B. Multiple intelligence
3. Stanley Hall	C. Social intelligence
4. Maslow	D. Psychology of adolescence
5. McClelland	E. Primary mental abilities
	F. Positive psychology
	G. Hierarchy of needs

[KR   1. C   2. E   3. D.   4. G   5. A]

P.s. If there are 'n' items under 'L' there should at least 'n + 2' 'items' under 'R'.

9.46. **Simple Recall / Completion item**

The simple recall item requires the student to provide an answer in a word / phrase.

The same items can be phrased in the form of an incomplete statement requiring the student to complete it with a word / phrase

E.g. Simple recall

How did Stanley Hall describe the period of adolescence?

[KR : 'stress and strain' 'storm and strife']

Completion item

According to Stanley Hall adolescence is a period of…..

[KR: 'stress and strain' 'storm and strife']

9.50. General Principles of Test Construction:

Test construction requires a systematic, organized approach if positive results are to be forth-coming. The following steps will serve as guidelines to the test maker:

9.51. Guidelines:

1. List the major objectives for which an appraisal is desired.
2. Analyse and define each objective in terms of expected student outcomes.
3. Establish a table of specifications.
4. Construct one or more test items for each objective listed.
5. Assemble the items of the test.
6. Write clear and concise directions for each type of question.
7. Construct the key.
8. Discuss every aspect of the test with other teachers.
9. Make necessary modifications.
10. After the test has been administered to one or two groups of students, analyse and improve it.

9.52. Specific Instructions

1. It is not possible to measure all outcomes of instruction with one type of test.
2. Make the test comprehensive, but exclude insignificant and trivial items.
3. Devise items which require application skill of the students.
4. Make certain that the type of item used for measuring each objective is the one that will measure best that objective.
5. Avoid trick or 'catch' questions.
6. Include a large number of items in the test.
7. Do not 'lift' statements directly from books and use them as test items.
8. Whenever possible, avoid items with only two choices from which the student selects one.
9. Make each item independent of others.

10. Make sure that no item can be answered simply by referring to other items.

11. Include no item for which the response is obvious to a person who does not know the subject matter.

12. Word the items in the simplest possible manner.

13. State questions clearly. Eliminate ambiguous questions.

14. Keep the method of recording responses as simple as possible.

15. Leave sufficient space for all responses without crowding.

16. Arrange blanks for responses along one side of the page, if possible.

17. Arrange the items so that responses will not form a particular pattern.

18. Arrange the items in such a way that it will not be necessary for the student to refer to more than one page in answering an item.

19. Number the responses consecutively from the beginning to the end of the test.

20. The practice of underlining crucial words, if not done too frequently and indiscriminately, tends to increase the objectivity of test items.

21. All items are to be equally weighted.

22. If certain items are to be corrected for guessing, this should be clearly indicated in the directions.

23. Make sure the directions are clear and complete.

24. Prepare a proper heading for the test.

9.60. **Stages of Test Construction**: (with reference to Guided Response)

- List the Specific Instructional Objectives (SIO's) of the unit for which you are constructing the test.

  [Eg. Unit: Psychology of Adolescence: The learner,

- defines the term 'Adolescence'

- indicates the age range

- classifies it into three stages

- identifies the key terms employed by Stanley Hall

- identifies the problems and needs related to – physical, mental, emotional and

  social aspects

- indicates the corresponding developmental tasks

- identifies the role of parents and teachers in providing guidance and counselling.

The last three global SIO's can be further classified into several SIO's…]

- Construct items (at least 2 or 3 for each SIO) – Multiple choice /TF / Matching / Simple Recall / Completion depending upon the concept / skill involved.

- Place them before a panel of judges (experienced and effective Teachers) for expert opinion.

- The items will be content-validated when their suggestions for refinement are incorporated.

- The items may be tried out on a small sample of students (around 15 – 5 High Achievers; 5 Mediocre Achievers and 5 Low Achievers) to study their reactions on the clarity of instructions and phrasing of the items.

- The items may be further refined based on their feed back.

- The test thus structured may be validated through 'item analysis' by administering it on '**Tryout**' sample.

9.70**. Item Analysis**

- Administer your test to a sample of around 100 students (representing High Achievers, Mediocre Achievers and Low Achievers in proportion to the general student population).

- Score all the papers in accordance with the scoring key.

- If you are going to apply correction formula make a mention of it in the instructions (avoid guessing; marks will be deducted for wrong answers).

- Arrange the answer scripts from the top most score (aggregate) to bottom most score.

- The top 27% of the students form the high group.

- The bottom 27% of the students form the low group.

- The middle 46% may be discarded (they will not be used for item analysis).

- For each item, calculate discrimination index (also called validity index) by using the formula:

$$\text{D.I.} = \frac{R_H - R_L}{\frac{1}{2}\,T}$$

R_H → Number of students who answered the item right in the high group

R_L → Number of students who answered the item right in the low group

T → Total number of students 27% + 27% = 54%

½ T → ½ of 54% = 27%

(in other words, 27% of the total number of students)

The value is given in decimals

- For each item, calculate difficulty value (also called facility index)

$$D.V. = \frac{R_H + R_L}{T} \times 100$$

(The value is given in percentage.)

- Option analysis (are all our options valid? Are distractors capable of

distracting? Hence this analysis. Each option must be chosen by not less than

$$\frac{N}{n^2} \rightarrow \text{Students}$$

(N – Total number of students

 n - number of options

E.g. Suppose N = 100

          and n = 5

then each option must be chosen by not less than (100/25) 4 students.

If an option is chosen by less than 4 students, it is not capable of distracting. It

must be replaced by another suitable option and tried out again or the very item

is to be dropped / rejected.

- Based on the calculation of these three values a Table is structured as below:

Item No.	D.I. / V.I.	D.V. / F.I.	$\frac{N}{n^2}$	Remarks S / R S – Selected R - Rejected

Criteria of Selection

    i.   D.I. should not be less than 0.20

    ii.   D.V. should range between 25% and 75%

    iii.   Number of students choosing

           an option should not be less than $\dfrac{N}{n^2}$

Rationale:

    i.   Items must be capable of discriminating between high achievers and low achievers.

    ii.   Too difficult items and too easy items must be rejected.

    iii.   Distractors must be capable of distracting.

- Each item must meet all the three criteria; then only they will be selected.
- Items thus selected constitute the final test (well structured and validated)

P.S.   Research studies on construction of achievement tests reveal that if the test maker writes 100 items initially and tries them out for 'item analysis', then only around 50 items are likely to be selected for the final tool.

9.70. **Characteristics of an Effective Test**:

Validity (Truthfulness)

A test must be valid. A test must actually measure what it is supposed to measure. In other words a test should test what it ought to test. A test designed to measure the mathematical ability of the students should test the mathematical ability only. If a test is so constructed that a highly intelligent student can find the correct answers without mastery of the subject matter, then it tests only Intelligence, not achievement in the subject. Such a test is not valid. A test constructed to test a particular area of learning should test that particular area of learning only.

Face Validity   :   The test seems to be relevant for the purpose.

                                  (to be confirmed by a panel of fellow-teachers)

Content Validity   :   It is estimated by evaluating the relevance of the test items.

                                  (to be confirmed by a panel of experts)

Construct Validity   :   Psychological aspects or factors involved in the area of learning.

                                  (to be confirmed by a panel of psychologists)

Concurrent Validity   :   The test concurs with another validated and standard test on the

                                   same area of learning.

                                  (to be confirmed by calculating the 'correlation coefficient' between   the scores of the two tests).

Reliability: (Trustworthiness)

A test must be reliable. A reliable test is a trustworthy test. It is consistent. In other words, a highly reliable test should yield essentially the same score when administered twice to the same student provided of course no new learning occurs between the two tests. A valid test is reliable but a reliable test is not necessarily valid.

Methods of Finding Reliability:

Test – Retest method:

The same test may be administered a second time to the same group. Correlation coefficient between the two sets of scores, called self correlation or reliability – coefficient of the test is calculated. If this index is high enough then the test is reliable.

Parallel Forms of Equivalent Forms:

Two separate but equivalent forms of the test are administered to the same group of individuals. The reliability coefficient between them is calculated.

Split – Half Technique:

The items of a single test are divided into two equivalent and separately scored tests. Then the two sets of scores are correlated. (A test may be divided into two parts – odd items 1,3,5,,,etc. and even items 2,4,6 etc. In this case the items must be serially graded in order of difficulty).

Objectivity:

A test must be objective. It affects both validity and reliability. There are two aspects of objectivity. The first is concerned with the scoring of the test. The second refers to the interpretation of the test items by the students. The personal judgements of the individual who corrects the test, his whims and fancies should not be a factor affecting the score. After the key has been made out there should be no question as to whether an item is right or wrong or partly right or partly wrong. As regards the student's interpretation of the test items, well constructed test items should lend themselves to one and only one interpretation by the student.

Validity, reliability and objectivity are closely related and interdependent; there is no fine line of demarcation. Evaluation necessarily depends upon accurate and correct measurement. This measurement in turn depends upon the precision of the instrument – the test. If the test is to be precise, it must be valid, reliable and objective. These three factors constitute the major criteria of a good test.

Comprehensiveness:

A test must be comprehensive i.e. long enough to do the task. In constructing and achievement test it is equally important to sample liberally all phases of instruction which are supposed to be covered by the test. It is not necessary and it would not be practicable to test every point taught in the course; there is no specific formula for meeting this criterion; it is a matter of judgement.

Administration and Scoring:

A test is to be easily administered and scored. Consideration must be given to the features of the test which make it readily administered and scored. It should be so designed that a minimum of student time will be consumed in answering each item. The test items should also be constructed in such a manner that they can be scored quickly and effectively.

9.80 Self Evaluation

Multiple choice items:

Choose the right / correct / most appropriate / best response and indicate your choice (A, B, C or D).

1. Evaluation is the process of finding the extent to which……..are realized.

   A) Institutional objectives   B) Instructional objectives

   C) Cognitive objectives   D) Affective objectives.   ( )

2. Which among the following indicates maximum performance?

   A) Aptitude tests   B) Mental ability tests

   C) Achievement tests   D) All of the above   ( )

3. Which among the following denote typical behaviour?

   A) Formative tests   B) Summative tests

   C) Attitude scales   D) None of the above   ( )

4. Prognosis is operative at the….stage

   A) Entry   B) Exit

   C) Enroute   D) All of the above   ( )

5. Diagnosis will not be complete without……

   A) Guidance   B) Remediation

   C) Assessment   D) Monitoring   ( )

6. Summative evaluation focuses on….

   A) Periodic progress   B) Learning readiness

   C) Learning difficulties   D) Global achievement   ( )

7. 'Monitoring learning progress' is the objective of…evaluation

   A) Formative   B) Summative

   C) Prognostic   D) Diagnostic   ( )

8. Scoring of essay items is often….

   A) Subjective   B) Time – consuming

   C) Laborious   D) All of the above

9. The stem of a multiple choice item is…..of the item

   A) Option   B) Distractor

   C) Keyed response   D) The question part   ( )

10. Bloom's Taxonomy identifies……levels of cognitive domain

   A) Different   B) Hierachical

   C) Assessment   D) Instructional   ( )

11. Why is 'correction formula' applied to scoring a multiple – choice items?

A) To discourage guessing   B) To penalize erratic choices

C) To avoid boosting of marks   D) To encourage mastery of the subject   ( )

12. An incomplete statement followed by several responses (right / wrong) belong to…type.

A) Cluster True – False   B) Completion

C) Simple True – False   D) Alternate response   ( )

13. 'Matching items' belong to…..type

A) 'Free response'   B) 'Select a response'

C) 'Provide a response'   D) 'Subjective'   ( )

14. A 'simple recall' item can easily be converted into a

A) Multiple choice item   B) Matching item

C) True – False item   D) Completion item   ( )

15. Which level of Bloom is cumulative of other levels of cognition?

A) Evaluation   B) Synthesis

C) Analysis   D) Application   ( )

16. Content validation of the test items is done by…

A) A panel judges   B) A sample of students

C) Option analysis   D) Item analysis   ( )

17. Effectiveness of an item to discriminate between high achievers

and low achievers is tested by…

A) Facility index   B) Validity index

C) Distractor analysis   D) Expert opinion   ( )

18. Items must facilitate learners to respond as easily as possible. This aspect is tested by

   A) Discrimination index   B) Difficulty value

   C) Correction formula   D) Distractor formula   (   )

19. The validity of responses is tested through…

    A) Item analysis   B) Option analysis

    C) Content validation   D) Try out with students   (   )

20. 'A test should test what it ought to test'. Which aspect of a test is implied by this statement?

   A) Reliability   B) Validity

   C) Sociability   D) Administrability   (   )

21. Psychological factors implied in the area of learning are verified by…validity

   A) Face   B) Content   C) Construct   D) Concurrent (   )

22. Reliability of a test refers to its…

   A) Consistency   B) Verifiability

   C) Scorability   D) Internal validity   (   )

23. Items are to be arranged in order of difficulty if the following

    test of reliability is to be applied.

    A)   Test – retest method   B) Parallel form method

    C) Split – half technique   D) None of the above   (   )

24. Parallel forms of tests are advocated in a….

    A) Pre test – post test process   B) Prognosis – diagnosis process

    C) Formative – summative process   D) Instruction – evaluation process   (   )

25. Evaluation depends upon measurement. Measurement depends upon the precision of the instrument. What is referred to as 'instrument' in situations of academic achievement?

A) Institution   B) Instruction   C) Tester   D) Test   ( )

SCORING KEY

1.	B	6.	D	11.	A	16.	A	21.	C
2.	D	7.	A	12.	A	17.	B	22.	A
3.	C	8.	D	13.	B	18.	B	23.	C
4.	A	9.	D	14.	D	19.	B	24.	A
5	B	10.	B	15.	A	20.	B	25.	D

Effective Instruction (mostly through class room presentations supplemented by other modes of facilitation of knowledge enrichment) and Effective Evaluation lead to Effective Teaching Evaluation is an integral part of Teaching. One cannot be an effective teacher without mastering the techniques of effective evaluation.

Effective evaluation, like effective instruction, is not an accident. It does not just happen. It will be the outcome of a series of sequentially linked academic activities which are usually time – consuming, laborious, taxing and challenging. However the results will be rewarding. Effective evaluation, like effective instruction, is a service teachers render to the student population.

10.00   TEACHING, RESEARCH AND OUTREACH

Content outline:

(Teaching, Research and outreach as key functions of a Teacher in Higher Education – Guidelines on how to write articles (theory or research oriented) for journals; on how to prepare and present seminar papers – Self Evaluation).

Teaching, Research and outreach are the three major key functions of a Teacher in Higher Education.

10.10 **Teaching:**

The best way to learn a subject is to teach it to a challenging audience. Based on the feedback from students (especially challenging questions) we improve our teaching (especially by filling up gaps in our knowledge and skills). Teaching gives us an opportunity to update our knowledge and skills by participating periodically in inservice programmes. It also gives us an opportunity to improve our educational qualifications in a phased manner. There is sufficient scope for professional growth, development and enrichment in Teaching.

Teacher competency depends upon two major factors: Aptitude and Attitude. Both are equally important. Aptitude refers to potential. This potential is manifest in performance (teaching). Aptitude must be supplemented by Attitude – a positive attitude towards teaching. This positive attitude is three dimensional

(Do you love your subject? Do you love your job – 'Teaching'? Do you love your students?).

'Teacher' is considered to be 'a friend, philosopher and guide' to all other members of society. Teachers of the day are expected to perform several functions – several roles to play:

- As an academic (an intellectual)

- As a role model (especially to the student population)

- As a social leader (in helping others in taking right decisions)

- As a student counsellor (facilitating student growth and development)

This is how society views a good teacher. Do we make an attempt to study how we are perceived by society?

We are not what we think we are; (as perceived by ourselves)

We are not what society thinks we are; (as perceived by society)

We are what we think society thinks we are (social perception as perceived by ourselves)

Teaching is a profession (it is more than a salaried job). According to **Eric Hoyle, Ryan and Cooper** the following are essential characteristics of a profession:

A profession

- Is a unique social service

- Is an essential social service

- Depends largely upon intellectual skills

- Requires intensive pre service orientation

- Has academic freedom

- Has a considerable degree of accountability

- Has a code of ethics

Teaching becomes a profession only when its functionaries (Teachers) perceive it as a profession and perform like professionals.

10.20 **Research**:

Research is a search for knowledge, a quest for knowledge based on thirst for knowledge.

It is a formal, systematic, intensive process of carrying on a scientific method of analysis.

The acid test of any Research is its social relevance – its relevance to education. Does your research facilitate effective teaching? Is 'knowledge enrichment' you gain through research useful to your professional enrichment?

Teachers in Higher Education are exposed to research even before taking to teaching – micro research project in their P.G. degree course, a dissertation in their M.phil degree course and a doctoral research (Ph.D.). They will have to take off from this level and reach greater heights. They will have to start supervising and guiding M.phil dissertations and Ph.D. theses of the research scholars who seek their guidance. It will be a joint learning experience for both – the Guide and the Research Scholar. The best way to learn a subject is to teach it. The best way to enrich one's knowledge of Research Methodology is to supervise and guide several research projects. In addition teachers in Higher Education can take up research projects on themes of their interest and choice. They can seek financial assistance from UGC/ICSSR and such other agencies.

One area of research which remains unexplored in most institutions of Higher Education is 'Action Research'. Teachers while in action (teaching) come across certain problems related

'Teaching – Learning' situations which need research based solutions. Teachers can take up a micro research to find a solution. These findings cannot be generalized because they have only local applicability. However they can be used as adhoc solutions (Hypotheses) for other institutions on similar problems.

Suppose you are a Mathematics teacher teaching I year students in a college. You assume your students have mastered the essential mathematical concepts and skills. However you find several students (even high achievers – those who have scored high marks in their Higher Secondary Examination) are not able to follow your lessons because there are gaps in their knowledge and skills. Your assumption is wrong. (A research does not take things for granted) Here is scope for 'Action Research'. Before you start presenting lessons of the I year syllabus structure and administer a prognostic test (readiness test) to your students – partly written and partly oral to find whether they have mastered the essential mathematical concepts and skills so that they can follow the new lessons without any difficulty. Identify gaps in their knowledge and skills and organize and conduct a 'Bridge Course' which will help them fill up the gaps. This will be an educational experiment which has local applicability. However you can share your experience with other institutions. Similarly, during the course, suppose most students find a lesson difficult you can structure and administer a diagnostic test to locate learning difficulties through error analysis. This is also Action Research (with local applicability) but here again you can share your experience with others.

Suppose you are an English teacher. You find almost all students do not speak English even in English classes. (If a language is not spoken, it is considered to be a 'dead' language. For most students English is a 'dead' language). You organize and conduct a programme / course in Spoken English. That is the treatment given to your students. Study its effectiveness. Refine and

improve the programme based on feedback by trying it out with suceeding batches of students. You can share your experience, - knowledge and modus operandi with others.

10.30 **Outreach**

Teachers in Higher Education are expected to share their knowledge with fellow – teachers of their Departments, fellow – teachers of other Departments (of inter-disciplinary nature), other institutions and other organizations to which such knowledge will be useful.

Sharing of your knowledge may be processed through oral presentations or paper presentations in meetings of the associations, publication of papers in magazines and journals or through mass media (if it is useful to the entire society).

Teachers in Higher Education can facilitate the professional enrichment of school teachers. They can find some time to visit schools and interact with teachers. They can address gatherings of school teachers and share their knowledge with them. School teachers may be invited to colleges to make the best use of knowledge sources available – Libraries / Laboratories.

The real outreach is 'Reaching Out' to society. Teachers in Higher Education must share their knowledge with society – not only with classes but with masses as well. They must share their knowledge through meetings organized and conducted by Rotary club and Lions club and the like – through public meetings organized and conducted in cities – through meetings organized and conducted in rural areas. They must make others understand and assimilate what they present. Knowledge must be useful to society. No knowledge is highbrow. We must make our knowledge useful and reach out to society through all the available avenues. This is the best way of registering our gratitude to society which is instrumental to our academic and professional growth, development and enrichment.

10.40 Guidelines on Knowledge Sharing

[Ps. Illustrations are from Education / Psychology; Readers are requested to draw parallels from their respective disciplines].

10.41 Theory Oriented Articles

Identify latest / current / standard books on the theory you are interested in. Read them and prepare notes (with relevant citations). Organize your materials. Prepare your draft beginning with an abstract of about 100 words. Let the title be brief and striking.

[Eg.] Title: **Towards a Positive personality**

Abstract:

This article outlines the need for the development of a positive personality to achieve success and happiness in life. Definitions and theories are outlined. Behavioural manifestations of a positive personality are identified. Need for a positive personality is underlined. Steps to develop a positive personality are furnished. The last paragraph is a fitting finale of the article establishing how a positive personality leads to success and happiness.

The following subtitles are to be elaborated:

➢ What is Personality? (Current key definitions stated by standard authors / psychologists are furnished).

➢ Theories of Personality (Current theories of personality as supplementary and complementary to earlier theories are stated and explained).

➢ What is Positive Personality? (Behavioral manifestations of positive personality are outlined).

- ➢ Need for Positive Personality (How does a positive personality facilitate success and happiness in life?).

- ➢ Steps to develop a positive personality. (Practical tips / steps to develop a positive personality are furnished).

- ➢ A final word (This is the last paragraph stating how a positive personality leads one to success and happiness in life). Positive Personality ⟶ success ⟶ happiness.

- ➢ References (current format for quotations / bibliography: A.P.A. manual is to be referred to)

10.42 Research Oriented Articles

Identify a research topic. Identify a standard research tool. Identify an appropriate population and sample. Administer the tool to the sample. Analyse the data collected. Sum up your interpretations, findings and implications. Organize your materials and prepare a research report.

[Eg.]: Title: **Gender Differences in Intelligence**

Abstract:

A standard intelligence test battery structured and validated by the Centre for Educational Research, Madurai Kamaraj University was administered to a stratified sample of 1000 college students (Boys: 500; Girls: 500) in Madurai. There was no significant gender difference in overall intelligence (aggregate score). However, Boys generally speaking were superior to Girls in numerical ability, space factor and reasoning; Girls generally speaking were superior to Boys in verbal comprehension, word fluency and perceptual factor; there was no significant gender difference in 'Memory'. (Meaningful 'Memory'; not 'Rote')

The following subtitles are to be elaborated:

> Need and significance of the study. (What made the investigator choose this topic for research).

> Current definitions, types and theories of intelligence. (A brief presentation on these aspects is made and the vital factors of intelligence – general mental ability are indicated).

> The study [statement of the problem, objectives, hypotheses, sample, tool of research (intelligence test battery), administration, collection of data, analysis, interpretation and findings]: Key section of the article.

> Educational implications of the study.

> Limitations of the study & scope for further research.

> References (current format: A.P.A. manual)

P.S. It is not potential (intelligence) but functional intelligence – performance that counts. Success in life (achievement) depends upon performance (not on potential alone). How one makes the best use of one's intelligence, determines success in life. (To be highlighted)

10.43 **Seminar Paper**

A seminar is a discussion meeting. Discussion is the key activity of a seminar. In a seminar you have to present your paper and defend it as well. Don't read your paper. Make a brief oral presentation highlighting key points, striking statements and implications. Have a copy of your paper for reference. [Copies of your paper are to be circulated to the participants well in advance to facilitate their perusal before the conduct of the seminar]. You can quote some key lines, here and there, from the paper during the (oral) presentation. After your presentation, you

must be ready to defend your paper – by responding to the questions likely to be posed by the participants – seeking clarifications from the paper presenter.

Usually a topic is assigned to the paper presenter. There are also times when several broad themes are indicated and you are permitted to choose your own topic under any one of the broad theme areas. Be creative, innovative, current and up-to-date in choosing a topic for your paper. The paper may be research – oriented or theory – oriented or a blend of both.

Guidelines advocated for research – oriented and theory – oriented articles are equally applicable to the seminar paper as well.
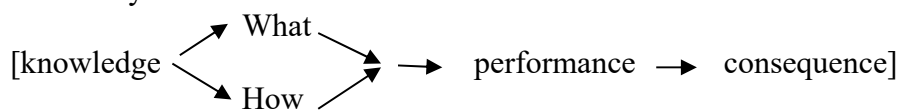
[Eg.]: Title: **Teacher Competency**

Abstract:

This paper makes an attempt to identify the three key layers of teacher competency – cognitive (knowledge) based competency ('what and how'); performance based competency and consequence based competency and how they are related to one another. Measures to develop these competencies through pre-service and in-service programmes are also advocated. 'How teacher competency facilitates student (academic) achievement' is the final phase of the paper.

The following subtitles are to be elaborated:

➢ What is Teacher Competency? (Definition of teacher competency).
➢ Cognitive based (knowledge based) competency. [knowledge of the subject matter (what) – mastery of the subject matter – up-datedness; knowledge of the methods of teaching (how)] – knowledgeable.

➢ Performance based competency (classroom presentation – set induction – presentation – closure – clarity of thought and expression – phrasing – pacing – organization of ideas – good speaking voice – sense of humour] – efficient.

➢ Consequence based competency. [Is teaching consequential? Does teaching result in student (academic) achievement? To what extent are instructional objectives realized] – effective

➢ Path analysis

[knowledge $\nearrow$ What $\searrow$ $\nwarrow$ How $\nearrow$ $\rightarrow$ performance $\rightarrow$ consequence]

(A few striking recent research studies are quoted to establish that teacher competency facilitates student (academic) achievement.

➢ Reference (current format: APA manual).

Self – Evaluation

Multiple choice items:

Choose the right / correct / the most appropriate / the best response out of the four options (A, B, C or D) that follow the stem.

1. Indicate the key major function of a teacher in Higher Education

   A. Teaching   B. Research

   C. Outreach   D. All the three   (   )

2. Which role of a teacher in Higher Education is related to classroom presentation

   A. Academic   B. Role model

   C. Social leader   D. Student counselor   (   )

3. Ethical aspect of the profession of teaching is highlighted by…

   A. Accountability   B. Academic freedom

   C. Code of conduct   D. Service orientation   (   )

4. Acid test of any research in Higher Education is its relevance to….

   A. Education   B. Institution

   C. Students   D. Teachers   (   )

5. The limitation of 'Action Research' is its…

   A. Less rigorous method   B. Local applicability

   C. Less sophisticated method   D. None of the above   (   )

6. 'Outreach' to society is called….

   A. Knowledge sharing   B. Knowledge seeking

   C. Research   D. None of the above   (   )

7. The 'abstract' of an article refers to its brief…

    A. Introduction   B. Summary

    C. Rationale   D. Background   ( )

8. A research article will be incomplete without indicating….

    A. Need for the study   B. Rationale of the study

    C. Background of the study   D. Scope for further research   ( )

9. In a seminar you have to present a paper and…it

    A. Elaborate   B. Defend

    C. Summarise   D. Supplement   ( )

10. The key activity of a seminar is….

    A. Discussion   B. Debate

    C. Question session   D. Open session   ( )

Key:

1. D	2. A	3. C	4. A	5. B
6. A	7. B	8. D	9. B	10. A

Epilogue

Fellow academics,

This is a modest attempt of the author to expose Teachers in Higher Education to 'Basic and Applied Pedagogy' – an attempt to orient them to play their role effectively. The author does not claim this to be a major breakthrough. However some ice has been broken. This is only the first step – the first mile stone. 'And miles to go' before reaching the final step–step of excellence in Teaching, Research and Outreach.

Some great teachers are admired and adored; several good teachers are recognized and rewarded. Yet there are hundreds of teachers – good and great who remain unhonoured and unsung. You may be one of such 'unknown' teachers. Remember you are loved and remembered by your students. God loves you and will reward you since you are sharing God's service – the service of educating all irrespective of their economic or social status, caste, community or creed.

May God Bless You

Feedback is most welcome.

S. Sathiyagirirajan

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Readers are requested to refer to the latest editions – revised, refined and enriched. The books authored by S. Sathiyagirirajan under E (Miscellaneous), are out of print; 75% of the copies of these books were gifted to the libraries of educational institutions known to the author.