

Quadrant-I (e-Text)

Details of Module and its Structure

Module Detail	
Subject Name	Education
Course Name	Assessment for Learning
Course Code	EDU503
Module Name/Title	Process Oriented Tools: meaning and construction of interview, inventory, observation, schedule, check list, rating scale and anecdotal record.
Module Code	AFL015
Learning Outcomes	<p>After going through this lesson, the learners will be able to:</p> <ol style="list-style-type: none"> 1. Describe the meaning and importance of process oriented tools. 2. Outline the uses and merits of various process oriented tools. 3. Discuss the steps for construction of process oriented tools. 4. Construct and administer process oriented tools.
Keywords	Interview, Inventory, Observation, Schedule, Checklist, Rating Scale, Anecdotal Record, etc.

2. Development Team

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1.0 Introduction

Dear learners, it seems me very significant to confer on the term assessment before discussing on process oriented tools. When we talk about the progress of the individual in schools and colleges, it is only through assessment that the educators come to know. It assists teachers and parents to identify the strengths and weaknesses of the learners which is advantageous for their further improvement. Teachers use a variety of tests to collect data about learning and progress of pupils. These instruments give the way to the educators to advance the progress of the learners at all levels. There are variety of assessment techniques classified on the basis of their purpose.

Formative assessment is done on regular basis and it is helpful for the teachers to identify the learning problems of the students and additional inputs needed to help their learning and understanding. Some of the formative assessment tools are; homework, teacher observations, oral or written reports, quizzes, etc. Summative assessments, on the other hand helps teachers to judge about the overall knowledge of the learners in a specific subject. Mid-term exams, end-term exams, term papers, capstone projects, etc. are the summative assessment tools which help teachers to decide about the promotion of the students to the next grade.

Diagnostic tests are helpful to assess the pupils' prior knowledge and acquisition of a particular skill i.e. reading, speaking, mathematical ability, etc. These tests are generally administered in the beginning of the session as a screening device and during the session as a progress monitoring tool. Institutions also use some informal assessment tools which are not standardized like checklists, small group activities, portfolios, etc. to know about overall outcome of the learning process required to convey the learners' achievements to the educators and the parents.

Process oriented assessment seems very significant to gauge the actual task performance of the individuals. It emphasizes on the assessment of the teaching-learning process in order to reach at the output or the products. Here learning objectives are stated with reference to the observable behaviour

of students. Process oriented assessment provides teachers the freedom to use multiple sources to integrate data, focus on learners' behaviours, decide precise tools for assessment, understand students' pattern of strength and needs, use most appropriate methods, strategies as interventions.

2.0 Process Oriented Tools

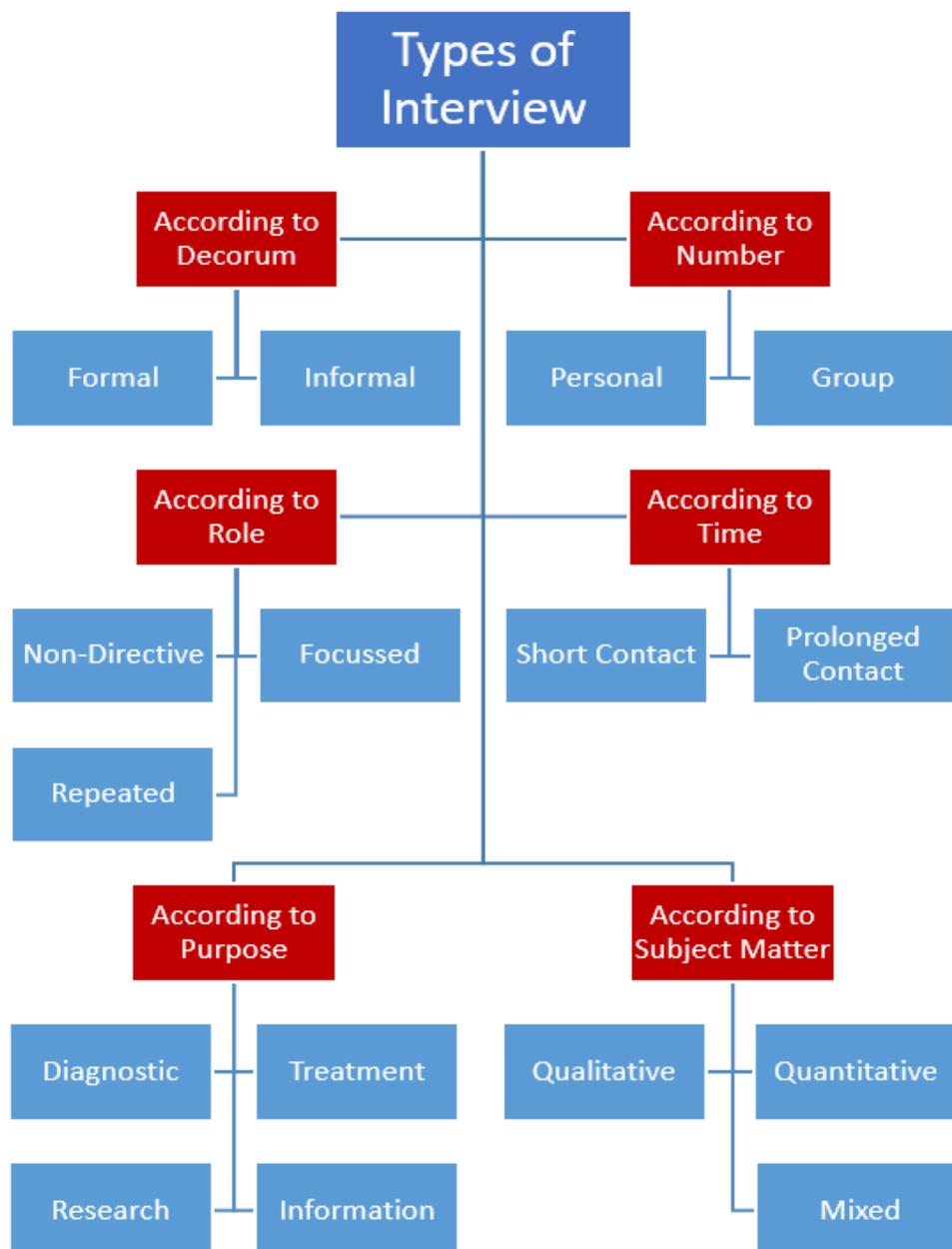
The assessment tools used to assess the process rather than product or outcome are known as process oriented tools. The focus of these tools is basically the performance and behaviour of the individual. These help to identify the strengths and weaknesses of the learners and thereby providing them desirable support for better learning experiences and improved outcomes. The commonly used process oriented tools of assessment are interview, inventory, observation schedule, checklist, rating scale, anecdotal record, etc. Let us discuss the meaning and construction procedure of all these tools one by one.

2.1 Interview

Interview is a very good tool in which a bond is established between the interviewer and the interviewee. If it is used as an assessment tool, it not only removes the physical distance but also the social and cultural barriers and it develops a free mutual flow of too and fro ideas among the teacher and the taught. They come at the same level and laying down all formalities try to get enrichment from the situation. Here students can put up their queries and teachers can be aware about the strengths of the learners so as to help them learn better by using different strategies.

Broadly speaking, the purpose of interview is to obtain specialized information. The interviewer steps in to help in cases where other methods are inadequate. Generally, interviews are used for varied purposes, like: hiring or recruitment interviews assess the persons' suitability for the available position; in research interviews questions are asked for the purpose of testing a hypothesis; in television, radio and newspaper interviews there is a continuous exchange of ideas and information which can be attributed to

several factors; ability of the interviewers to ask questions and encourage the interviewee refers to their ability to probe deeper and do follow ups on the questions to gain more information; responsiveness and ability of the interviewee to express fully can provide the answer that the interviewer is looking for in the interviewee; and finally, interview settings include the venue or location, the language used and other external factors that set the overall tone of the interview. The interviews are categorized in different ways as follows:



2.1.1 Steps to Construct Interview

1. Write down the superior questions and outline the broad areas of knowledge that are relevant to answering these questions.
3. Develop questions within each of the major areas, keeping in view the respondents so as to tap into their experiences and expertise.
4. Language of the interview must be according to the respondents (children, professionals, etc.).
5. Questions should be simple and clear so that respondents are motivated to answer as completely and honestly as possible.
6. Ask “how” questions rather than “why” to get stories of process, e.g. “How did you come to join this group?”
7. Develop probes to elicit more detailed and elaborate responses.
8. Begin the interview with a “warm-up” question. This initial rapport-building will put you more at ease with one another and thus will make the rest of the interview flow more smoothly.
9. Think about the logical flow of the interview. Which topics should come first? What follows more or less “naturally”?
10. Difficult or potentially embarrassing questions should be asked toward the end of the interview.
11. The last question should provide some closure for the interview, and leave the respondent feeling empowered, listened to and glad.

2.2 Inventory

Inventory is a criterion referenced test designed to determine if an individual has an accurate working knowledge of specific field. It is generally a multiple-choice test in order to aid interpretability and facilitate administration in large classes. Inventories are used in the research purposes. In research inventory aims to ascertain the range of what individuals think a particular question is asking and the most common responses to the questions.

An inventory is a kind of self-report instrument. The individual checks responses to certain questions or statements. Inventories yield scores which are assumed or have been shown to measure certain tendencies or traits. Interest inventories attempt to yield a measure of the types of activities that

an individual has a tendency to like and to choose. In 1907, Hall, a psychologist, standardized “Recreational Interest Inventory” and in 1934, Kuder, another psychologist, standardized “Occupational Interest Inventory”.

2.2.1 Types of Inventory

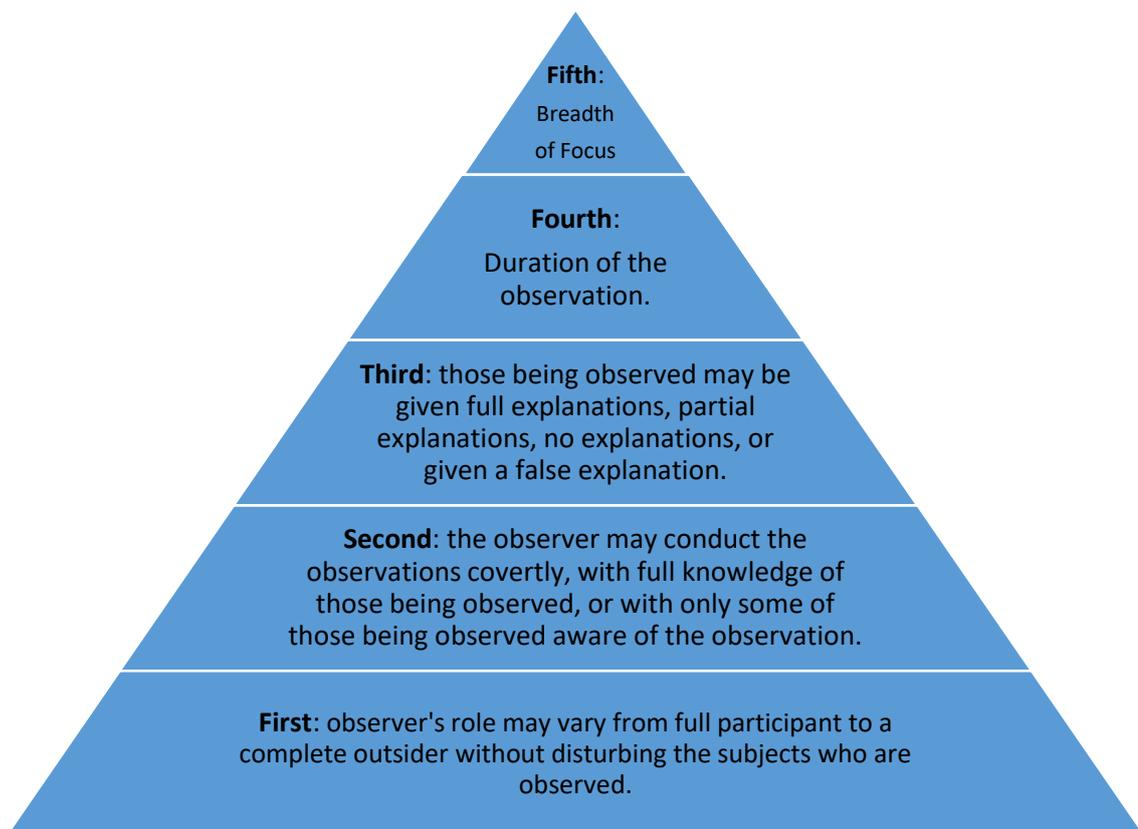
1. Direct Questioning - It presents questions like - 'Do you like to play cricket?'
2. Direct Observation - Behaviour of the individual is observed and it is found out in which activities the individual is more interested.
3. Tested Interest - The individual is exposed to various experiences related to different types of interests and it is observed in which area the individual is showing more interest.
4. Interest Inventory - This is most preferred way of measuring interest. It consists of various statements and the individual is asked to arrange them in order of preference. Mostly interest inventories are of verbal type.
5. A Personality Inventory attempts to measure certain personality traits such as individual need, adjustment, etc. It consists of questions of 'Yes/No' type.

2.2.2 Advantages and Limitations

Interest inventories are useful in educational and vocational guidance. They are helpful to the teachers to provide educational facilities to the students as per their interests. Inventories can be administered of individuals as well as on groups. Personality inventories have been proved valuable in diagnosis in clinical situations for the psychiatrists. An inventory is not very much time-bound. Any can administer the inventory without any training to get expertise. But, because of individuals' inability or unwillingness to report their own reactions accurately or objectively these instruments may be of limited value. This limitation may be attributed to the inadequate theories of personality upon which some of these inventories have been based.

2.3 Observation

Observation is the process in which individuals observe the events and occurrences in the real life situations and classify and record those happenings according the prior plan. It is used to evaluate the overt behaviours, events, and the contexts surrounding the events and behaviours in controlled and uncontrolled situations. Patton (1990) has suggested five dimensions along which observation varies:



Observational methods have occupied an important place in the field of education and research. These include the observation of the setting or physical environment, social interactions, physical activities, non-verbal communications, planned and unplanned activities and interactions. Observation needs proper planning, expert execution and adequate recording and interpretation so as to prove itself a good technique. Let's discuss these steps one by one to understand the process of observation better.

2.3.1 Planning for Observation

The planning for observation includes definition of specific activities or units of behaviour to be observed, the nature of the groups of subjects to be observed, the scope of observation-individual or group, length of each observation period, interval between different periods, deciding about the tools to be used in making the observation and recording, training of the observer to develop expertise, interpretation of observation, etc.

2.3.2 Execution of Observation

Execution of the observation can be done appropriately if the observer is aware of the type of the observation being utilized for the purpose. Observation may be classified as participant or non-participant and unstructured or structured observation. In the participant observation, the observer becomes one of the members of the group under observation. Here the observer remains in the site of the person being observed and actually take part in some activity within the group. Participant observer has to play any role in the group may be as a stranger, an attentive listener, an eager learner, etc. In non-participant observation, observer takes a position where it does not disturb the group. In this type of observation, a one-way vision screen that permits the observer to see the subject but prevents the subject from seeing the observer, is useful.

Unstructured observation is associated with participant observation. It is an exploratory technique. In this type of observation, it is not possible to categorize behaviour in advance. Instead of using predetermined categories, the observer considers aspects of behaviour in terms of their context or the situation of which they are part. On the other hand, structured observations are formal and designed to provide systematic description to test casual hypotheses. It is executed in controlled situations like classroom or laboratory settings. Interaction analysis of the classroom verbal behaviour of a teacher is an example of structured observation. Structured observation starts with relatively specific formulations. There is much less choice with respect of the content of observation. The observers set in advance categories of behaviour

in terms of which they wish to analyze the problem, and keeps in mind the time limit under which the observations are to be made.

2.3.3 Recording and Interpreting Observation

The recording of the observation data may either be simultaneous or soon after the observation. In viewing, classifying and recording behaviour, the observer must take utmost care to minimize the influence of his biases, attitudes and values on the observation report. In order to overcome the biases introduced by the human observer, various mechanical instruments are used to obtain a more accurate record of events. The use of camera, tape-recorder, stop watch, one-way vision screen or mirror, etc. allows behaviour to be measured to a degree of accuracy which could not be achieved by the human observer. It is advisable to develop an observation form or schedule while making observations.

Observation provides a direct procedure for studying various aspects of human behaviour, which may be the only effective way to gather data in a particular situation. It enables the observer to code and record behaviour at the time of its occurrence. The limitations of this method are that, sometimes a subject may intentionally attempt to exhibit an artificial behaviour when knows about being observed. Also, observation method is time consuming and sometimes too costly.

2.4 Schedule

Schedule is a device consisting of set of questions which are asked and filled in by an interviewer in a face to face situation with another person. It differs from the questionnaire in that the former is administered personally to a respondent or a group of respondents while the later can be mailed. The schedule has many advantages over the questionnaire. It helps the researcher to explain the nature and purpose of investigation and to make the meaning of the questions clear to the respondents if they misinterpret or give incomplete or indefinite responses. It also economizes time and expenses of the investigation. Sometimes, it may not be possible to contact personally all

the respondents either individually or in a group and it is one of the limitations of the schedule.

The procedure of constructing a schedule, analysis and interpretation of data gathered through it is almost same as that of a questionnaire.

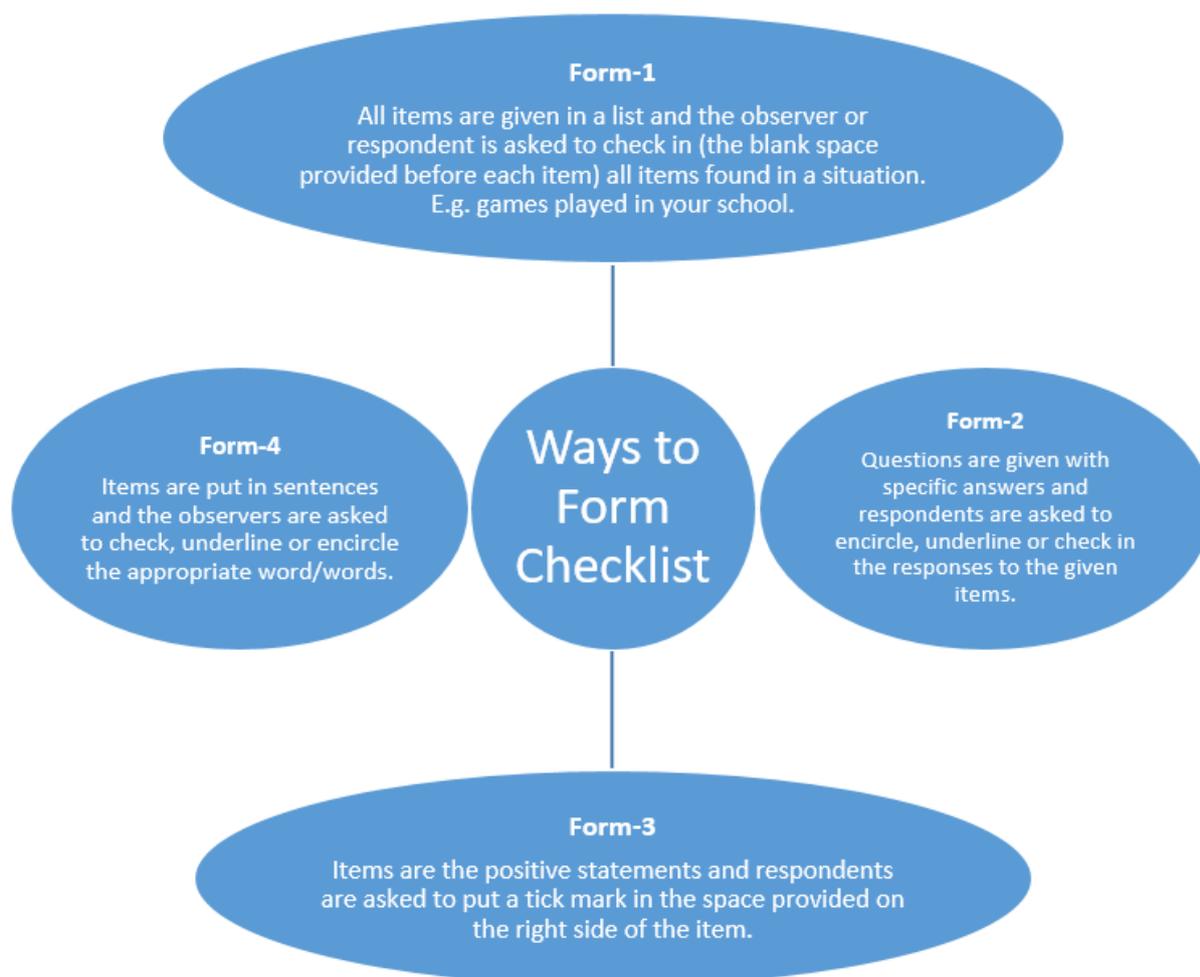
2.5 Checklist

A checklist is a simple device consisting of a prepared list of items which are thought by the researcher to be relevant to the problem being studied. After each item a space is provided for the observer to indicate the presence or absence of the item by checking 'yes' or 'no', or a type or number of items may be indicated by inserting the appropriate word or number. A checklist draws the attention of the observer to relevant factors and enables him to record the data quickly and systematically. Thus the responses to the checklist items are a matter of 'fact', not of 'judgement'.

The checklist is an important tool in gathering facts for educational surveys i.e. checking of libraries, laboratories, game facilities, school buildings, textbooks, etc. checklists are sometimes used in the form of a questionnaire which are completed by the respondent rather than by the observer.

2.5.1 Construction of a Checklist

Before constructing a checklist, the researchers should carefully examine the already available and used checklists in various fields of educational research. Then, they should determine the items on which information is required for investigation. The items thus determined may be arranged in logical and psychological order. There are various ways of writing and arranging the items in a checklist. Kempfer (1960) has suggested four ways to form a checklist depicted in figure.



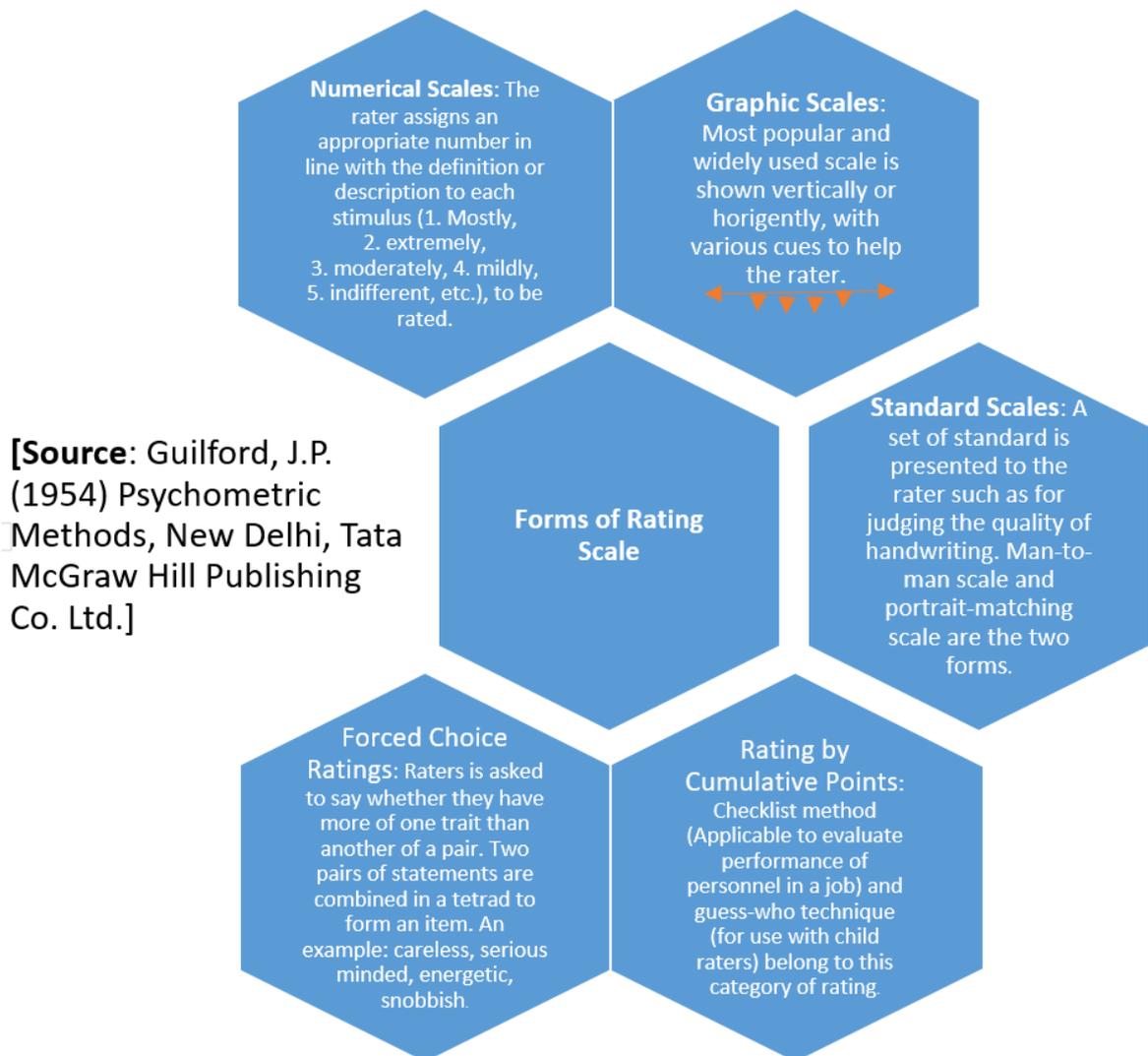
The items of the checklist should be phrased in such a way that they are discriminative in quality. It will increase the validity of the checklist. A preliminary tryout of the checklist may also prove helpful in making the tool more objective.

2.5.2 Analysis and Interpretation

Quantification of data obtained by the checklist is generally achieved through tabulation and counting. The totals are converted into proportions or percentages. Calculation of contingency coefficients or correlations is often made in order to suggest probability of relationship among data. Computation of Chi-square statistics is also advisable.

2.6 Rating Scale

Rating is the expression of opinion or judgement regarding some situations, objects, persons, etc. These opinions are usually expressed on a scale or categories of values. In order to scale the traits and attributes rating scales are used commonly. The special feature of the rating scale is that the attitudes are evaluated not on the basis of opinions of the subjects but on the basis of the opinions and judgements of the experts. A rating scale is a method by which one systematizes the expression of opinion concerning a trait. The ratings are done by parents, teachers, a board of interviewers and by the self as well. Forms of rating scales are also depicted in figure below:



In rating scale, the expert or the teacher collects the data/information by varied means like; non-verbal behaviour such as accepting or rejecting customs; verbal behaviour such as expressing concurrence or objection; secondary expressive cues as facial expression, etc.; clinical type interview; personal documents such as autobiography, letters, diary, etc.; projective techniques such as ink block test; and immediate experience such as the emotions, thoughts perceptions, imagination of the individual, etc. Guilford (1954) have suggested five broad categories of rating scales.

2.6.1 Construction of a Rating Scale

While constructing a rating scale the following points should be kept in mind:

1. Name of the Trait to be Rated: Guilford (1954) has suggested some rules for defining and describing the traits like: trait should be described univocally, objectively and specifically; not be a composite of a number of traits; refer to a single type of activity; be grouped according to the accuracy with which they can be rated; no scales should be used for traits on which reliable or more objective data can be obtained.
2. Cues: A rating scale should make use of good cues. According to Guilford (1954) these cues should take care of: clarity (short statements, simple and unambiguous terminology), relevance (consistent with the trait name and its definition), precision (should not overlap other cues), variety (avoid the use of same terms in different cues), objectivity (cues with implications of good/bad, worthy/unworthy, etc. should be avoided) and uniqueness (cues for each trait should be unique and avoid using very general characters like excellent, superior, average, poor, etc.).
3. No Hard and Fast Rule: There are no rules concerning the scale divisions to be used in a rating scale. In general, 5 to 7 point scale seem to serve adequately.

2.6.2 Constant Errors in Constructing and Using Rating Scales

Rating based on human judgements are subject to many sources of personal biases and errors such as: the error of leniency (easy-raters and hard-raters); the error of central tendency (tendency to rate the stranger individuals on the middle instead of extremes of the scales); the halo-effect (raters general opinion about the person influences the overall rating and it can be counteracted with the practice of rating one trait at a time and by using forced choice technique); the logical error (giving similar rating for traits which raters feel logically related to each other); the contrast error (tendency to rate others in the opposite direction from himself in a trait); and the proximity error (adjacent traits on a rating form tend to inter-correlate higher than remote ones, their degree of actual similarity being approximately equal). Such errors can be counteracted to some extent by placing similar traits farther apart and the different ones closer together.

2.7 Anecdotal Record

Anecdote has been the most widely used method for describing naturalistic behaviour. It is a word description of a behaviour episode. Although, there is no set pattern for anecdotal writing, but there are different styles of making anecdotal records. Quality of anecdotal records can be improved by keeping in view the following points:

1. write the anecdote immediately after the event so as to avoid the forgetting of the important points to be recorded.
2. Record the major actions or the statements of the individual in the episode.
3. Note down the what, where, when, etc. of the behaviour or the why of the occurrences in the event.
4. Record the responses, feedback, actions of others about the key person in the event.
5. Note down the direct quotations wherever possible to make the record lively.
6. Anecdotal record should preserve the sequence of actions and responses of the original behaviour incident.

7. All important details should be objective, accurate and complete in all respects in the anecdotal record.

Anecdotal record is a very useful tool in behavioural research. This is extensively used in examining classroom practices, in analyzing community influences on development of individuals and in assessing change in interpersonal behaviour of hyper-aggressive children undergoing residential treatment.

3.0 Summary

In this module we have discussed in detail about the commonly used process oriented tools of assessment like interview, which refers to a one-on-one conversation between an interviewer and an interviewee. Then, we discussed that inventory is a criterion referenced test designed to determine if an individual has an accurate working knowledge of specific field or not. In addition to this observation is the process in which individuals observe the events and occurrences in the real life situations and classify and record those happenings according the prior plan. A schedule is a device consisting of set of questions which are asked and filled in by an interviewer in a face to face situation with another person. Further, a checklist is a simple device consisting of a prepared list of items which are thought by the researcher to be relevant to the problem being studied. Thereafter, it is described that a rating scale is a set of categories designed to elicit information about a quantitative or a qualitative attribute. It requires the rater to assign a value, sometimes numeric, to the rated object, as a measure of some rated attribute. Finally, it is conferred that anecdotal record has been the most widely used method for describing naturalistic behaviour of the individuals.

Quadrant-III - (Learn More/Web Resources/Supplementary Materials):**References**

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Glossary

Interview: In common parlance, the word "interview" refers to a one-on-one conversation between an interviewer and an interviewee.

Inventory: Inventory is a criterion referenced test designed to determine if an individual has an accurate working knowledge of specific field.

Observation: Observation is the process in which individuals observe the events and occurrences in the real life situations and classify and record those happenings according the prior plan.

Schedule: Schedule is a device consisting of set of questions which are asked and filled in by an interviewer in a face to face situation with another person.

Checklist: A checklist is a simple device consisting of a prepared list of items which are thought by the researcher to be relevant to the problem being studied.

Rating Scale: A rating scale is a set of categories designed to elicit information about a quantitative or a qualitative attribute. It requires the rater to assign a value, sometimes numeric, to the rated object, as a measure of some rated attribute.

Anecdotal Record: Anecdotal record has been the most widely used method for describing naturalistic behaviour of the individuals.

Quadrant-IV: (Self-Assessment)

Description: In self-assessment Question No. 1 to 5 consist of multiple choice questions in which learners are required to select the correct one out of the four alternatives and Question No. 6 has five statements in which learner has to identify about true/false statements.

1. Formative assessment
 - a. is not done on regular basis
 - b. is not used to decide about the promotion of the students to the next grade
 - c. is not helpful for the teachers to identify the learning problems of the students
 - d. does not recommend the additional inputs needed to ensure better learning and understanding
2. Process oriented assessment
 - a. is not significant to gauge the actual task performance
 - b. targets on the output of the learners or the products
 - c. emphasizes on the assessment of the teaching-learning process
 - d. provides teachers with specific tools of assessment
3. Process oriented tools of assessment are helpful to assess
 - a. the process
 - b. the product
 - c. the outcome
 - d. all of these
4. The main focus of process oriented tools is basically
 - a. to assess performance and behaviour of the individual
 - b. to identify the strengths and weaknesses of the learners
 - c. to provide desirable support for better learning experiences
 - d. all of these
5. According to subject matter, which of the following is not a type of interview
 - a. qualitative
 - b. quantitative
 - c. diagnostic
 - d. mixed
6. Identify about true/false statements.
 - a. Interview is an assessment tool in which a bond is established between the interviewer and the interviewee. ()
 - b. A criterion referenced test designed to determine if an individual has an accurate working knowledge of specific field, is known as inventory. ()

- c. Execution of the observation can be done appropriately if the observer is not aware of the type of the observation being utilized for the purpose. ()
- d. Schedule is a device consisting of set of questions which are asked and filled in by an interviewer in a face to face situation with another person. ()
- e. There are strict rules concerning the scale divisions to be used in a rating scale. ()

Answers: 1. b 2. c 3. a 4. d 5. c

6. a. (T) b. (T) c. (F) d. (T) e. (F)