In this session, we shall discuss the various techniques used in selecting personnel or employees in an organization. We shall also discuss usefulness or utility of the selection techniques, that is, the extent to which they can be used to predict or forecast employee performance, hence guide us whether to select them or not. The techniques include: Aptitude testing, Interviewing, formal education, relevant working experience, and references/recommendation letters. Further, we shall discuss three major approaches or models to selection: Multiple cut-off/hurdle approach, Multiple regression/predictors approach, and the Hybrid approach.
At the end of the session, the student will

- Understand and explain aptitude testing, Interviewing, formal education, relevant working experience, and references/recommendation letters in personnel selection.
- Understand and explain the validity and utility of aptitude testing, Interviewing, formal education, relevant working experience, and references/recommendation letters in personnel selection.
- Identify, distinguish and understand three major approaches or models to personnel selection: Multiple cut-off/hurdle approach, Multiple regression/predictors approach, and the Hybrid approach.
The key topics to be covered in the session are:

- **Topic One**: Utility of a Selection Procedure
- **Topic Two**: Biographical Data and Selection Tests
- **Topic Three**: Employment Interview.
- **Topic Four**: Formal Education and Work Experience.
- **Topic Five**: Models/Approaches to Personnel Selection


Topic One

UTILITY OF A SELECTION PROCEDURE
Utility is concerned with the accuracy of prediction. It is the usefulness of a predictor in enhancing selection decisions. Thus how well a selection tool predicts a job behavior.

Some factors used to assess the usefulness of a selection technique:

- Validity
- Base Rate
- Selection Ratio
Validity

• This is the relationship between the selection procedure (predictor) and the job behavior (criterion).

• The correlation between the predictor and the criterion variable - the validity coefficient (r) in selection design computed using Pearson r. (Remember).

• The stronger or higher the validity coefficient of the predictor (0.6 to 0.9), the more useful the procedure/predictor will be for selection.
Base Rate (BR)

- A measure of the quality of the applicant pool. It is the proportion of applicants who will be satisfactory performers on the job.

\[
BR = \frac{\text{No. of applicants who will be satisfactory Performers on the job}}{\text{Total no. of applicants}}
\]
Significance of the Base Rate

• If all the applicants are satisfactory, (base rate = 1) then there is no need for a selection technique no matter how valid. Anyone that the recruiters turn up will be satisfactory.

• The greater the base rate, the less potential contribution a selection procedure can make. The lower the base rate the more useful a selection procedure would be.
Selection Ratio (SR)

- The proportion of applicants hired/selected for a job. The ratio of the number of available job openings/vacancies/number of applicants offered jobs to the total of available applicants. (See figure)
- \( SR = \frac{\text{Number of applicants offered jobs}}{\text{Total number of applicants}} \)
Correct Selection Decisions and Errors

- **D** = False negatives (error)
  Rejection of persons who turn out to be successful

- **B** = False positives (error)
  Selection of persons who turn out to be unsuccessful

- **C** = True negatives (correct decision)
  Rejecting poor performers

- **A** = True positives (correct decision)
  Selecting good ones
USEFULNESS UTILITY OF A SELECTION PROCEDURE/PREDICTOR

- There are two objectives of the selection procedure
- To increase the proportions of correct decisions (A and C)
- To minimize the chance of making the two types of errors (D and B)
- Main concern is to avoid the last error B (False positives).
- The cost of hiring a poor performer would have enormous consequences to the organization
- Designers of the selection procedure attempt to minimize the risk of making false positives
Topic Two

BIOGRAPHICAL DATA AND SELECTION TESTS
One of the oldest procedures in personnel selection

Using these data for selection assumes behavioural consistency; that “past behavior is the best indicator of future behavior”

Thus a person’s personal data and experience need to be gathered in a form that leads itself to validation and interpretation

An example of an application blank is the Biographical Information Blank (BIB)

The BIB usually uses a multiple – choice

Relative to other selection procedures it is one of the most valid, with a validity coefficient of about 0.4. (Millward, 2005)
Ability tests

• Professionally designed cognitive ability tests are valid predictors of performance in all settings
• Predictive validity coefficient is about 0.54
• Ability tests assess individuals’ aptitude and achievements

• **An aptitude** refers to the individual’s potential to acquire a skill. Examples of aptitudes include intellectual abilities, perceptual accuracy, and spatial and mechanical abilities, and motor abilities.

• The results of an aptitude test indicate what a person might be able to do, given training or experience
SELECTION TESTS

• Aptitude tests serve to estimate the extent to which an individual may profit from training.

Achievement tests

• In contrast, these get at what the individual already knows.
• Achievement covers the effects of training and experience, such as the learning which occurred in apprenticeship or a prescribed programme of study. For example, Standardized Achievement Test eg.; Graduate Record Examination, knowledge of mechanics, plumbing, electrical principles, and recognition of various tools may be used as aptitude tests.
• They focus on measuring the knowledge presumed necessary for successful work behaviors. Other examples include
• Most achievement tests used for selection have been developed for semiskilled and craft jobs. (Milkovich & Gluek, 1985; Millward, 2005; Saal and Knight, 1995).

Personality and Interest Tests/Inventories

• They were not originally designed for use in employment selection. Conceptually, the notion that an employee’s personality affects job performance makes sense, at least for managerial jobs

• The Guilford-Zimmerman Temperament Survey is an example of a test that presumably measures personality traits, including general activity, restraint, aggressiveness, sociability, emotional stability, objectiveness, friendliness, and more
SELECTION TESTS

• Some studies have found that the sociability and emotional stability factors are valid predictors of managerial performance
• Personality inventories have predictive validity coefficient of about 0.18

Interest inventories
• The primary use of an interests test is vocational counseling, not selection
• Assesses an applicant’s preferences
• By comparing their responses to those successful people in a field, it is possible to find similar and different patterns of interest
• The predictive validity coefficient of interests is about 0.12 (Milkovich & Gluek, 1985; Millward, 2005; Saal and Knight, 1995).
Topic Three
EMPLOYMENT INTERVIEW
The employment interview is one of the most widely used selection techniques. Yet reviewers of over 150 research studies conducted over 20 years conclude it is rarely a valid predictor of job success. It has predictive validity coefficient of about 0.25.

Research indicates that about 56% of organizations consider interviews as the most important aspect of the selection process. Ninety percent report that of all selection procedures, they have the most confidence in it.
EMPLOYMENT INTERVIEW

• Despite the fact that the reliability and validity of interview is low, it retains its popularity for the following reasons:

• The interview offers the opportunity for making inferences about applicants interpersonal and communication skills and perhaps their work motivation.
EMPLOYMENT INTERVIEW

• It furnishes an opportunity to answer applicant’s questions and to provide them with realistic sets of expectations about available jobs (s)

• The interviews may accomplish the purpose of creating good organizational – public relations in the community
Types of Interviews

There are three general types of employment interview:

- Structured
- Semi-structured
- Unstructured

Structured Interviews

In the structured types, the interview prepares a list of questions in advance and does not deviate from it.
• **Semi – structured Interviews**

Calls for greater flexibility than the structured approach. The interview is free to probe into those areas that seem to merit further investigation

• **Unstructured Interviews**

The unstructured interview involves little preparation of questions in advance. The interviewer may prepare a list of possible topics to be covered
EMPLOYMENT INTERVIEW

• Some limitations on the Use of interviews- Why Low Reliability and Validity
• Milkovich and Guelph (1985) provide a summary of why interviews have low reliability and validity
• Over emphasis on negative information
• Interviewer stereotypes. Often interviewers develop a stereotype of the ideal job candidate. Successful interviewees are thus not necessarily the ones best qualified but the ones who conform to the stereotype
EMPLOYMENT INTERVIEW

- **Job information** – lack of relevant job information can increase the use of irrelevant attributes of interviewee in decision making.

- **Different use of cues by interviewers** – some interviewers may place more weight on certain attributes than others, or they may combine attribute differently as they make their overall decisions.
EMPLOYMENT INTERVIEW

• **Visual cues** – interviewees’ appearance and non-verbal behavior can influence the evaluation in an interview greatly, yet perhaps unrelated to job success.

• **Similarity to interviewer** – sex, ethnicity, attitude similarity to interviewer may lead to favourable evaluations.
• **Contrast effects** – the order of interviewee’s influences rating e.g. strong candidates who succeed weak ones look even stronger by contrast.

• **Primacy and recency effects** – interviewee’s first expression (primacy effect) and final impression (recency effect) may have significant effect on the evaluations.
Topic Four

FORMAL EDUCATION AND WORK EXPERIENCE
Most employers attempt to screen for abilities by specifying educational and experiential criteria.

Indicate ability of skills present, and level of accomplishment.

May indicate the degree of work motivation and intelligence of the applicant.

Thus the educational criteria must be validated against job performance.

The employer must examine the amount and type of education that correlates with effectiveness on a particular job to use it as the selection criterion.
• Formal Education is more effective than relying on preferences, and it is a legal and professionally sound way to set an educational criterion.

• Relevant Working Experience
  • Employers usually prefer more experience to less
  • relevant experience to less relevant
  • significant to insignificant

• Reference Checks and Recommendation Letters
  • For years, as part of the selection process, applicants have been required to submit references or recommendation letters
  • These are supposed to indicate past behavior and how well the applicant did at the last job
The letter of recommendation has been called “much used but little researched.”

Employers equate experience with ability as well as with attitude, reasoning that a prospect who has performed the job before and is applying for a similar job likes the job and will do it well.

For a letter of recommendation to be useful, it must meet certain conditions:

- The writer must have known the applicant’s performance level and be competent to assess it.
- The writer must communicate the evaluation effectively to the potential employer.
- The writer must be truthful.
FORMAL EDUCATION AND WORK EXPERIENCE

- Validity of written references have not been comforting to those using them in selection.
- In addition to validity (validity coefficient of about 0.28), there is another problem with written references. The Privacy Act of 1974 gives applicants a legal right to examine letters of reference concerning them unless they waive their right to do so.
- As a result, objective reference letters are now hard to come by.
- Many prior employers will verify in writing only the last job title, salary, and date of employment.
- One way to get around the privacy law is for applicants to sign a release form stating that they waive the right to examine the letter(s).
FORMAL EDUCATION AND WORK EXPERIENCE

• Although little data for reliability exists, it appears to be very useful to find out how the applicant performed on previous jobs.
• This can be the most relevant information for predicting future work behavior.
• Reference checks would seem in order for the most crucial jobs at any time.
• Costs of these checks vary from a few cents for a few quick telephone calls to severe hundred dollars for a thorough field investigation.
• For a letter of recommendation to be useful it must meet certain conditions.
FORMAL EDUCATION AND WORK EXPERIENCE

- The writer must have known the applicant’s performance level and be competent to assess it.
- The writer must communicate the evaluation effectively to the potential employee.
- The writer must be truthful – should not gloss over shortcomings or over emphasize the applicant’s good points. (Milkovich & Gluek, 1985; Millward, 2005; Saal and Knight, 1995).
Topic Five

MODELS/APPROACHES TO PERSONNEL SELECTION
• Multiple Regression approach

• This approach is a compensatory process/model.

• Designed to recognize that applicants’ limitations on some qualification can be counter – balanced by strengths in others.

• In addition to minimizing errors in prediction, the model combines the most efficient estimate of criterion status (MilKovich & Glueck, 1985; Saal & Knight, 1995).
MODELS/APPROACHES TO PERSONNEL SELECTION

• Multiple Cut – off Approach / Multiple Hurdles Process
• assumes that an applicant’s strengths and weaknesses do not balance each other
• Selection is then made from the group of applicants who meet or exceed the required cut – offs on predictors. Failure on one predictor disqualifies the applicant for further consideration.
• **Multiple hurdles/cut-offs approach is appropriate when:**
  • Stringent procedures are required
  • You have a large applicant with low selection ratio
  • Compensation is claimed inappropriate, for example, visual acuity, auditory acuity, manual dexterity, high degree of eye – hand co-ordination are needed for aircraft pilot success.
  • It is essential that every single hurdle must be job – oriented and free from illegal discrimination.
• Hybrid Approach / Process
• In this process, multiple hurdles and compensatory logic are both used.
• For most jobs, certain minimum qualifications are required for successful performance, e.g. college degree, typing speed, two year experience etc.
• Usually the hybrid process begins with hurdles to screen out those not minimally qualified (Milkovich & Gluek, 1985; Saal & Knight, 2000).
• “In spite of its low validity, employment interview appears the most popular personnel selection technique”. Discuss.