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**FACULTY of ARTS & SCIENCES**  
**PSYCHOLOGY DEPARTMENT**  
**PSY 470 INDUSTRIAL PSYCHOLOGY**  
**WEEK 4**

# ASSESSING & SELECTING EMPLOYEES



# Employee Selection Model

Recruiting effective employees follows a simple model with two key variables: criteria and predictors.



# Understanding Criteria

## 1 Performance Measures

Criteria are measures of success. For cable installers, it's units installed. For salespeople, it's dollar figures.

## 2 Beyond Performance

Success includes loyalty, commitment, attendance, interpersonal skills, and growth potential.

## 3 Ultimate Criterion

"Success on the job" is aspirational. We may never fully capture it with limited measurements.

# Exploring Predictors

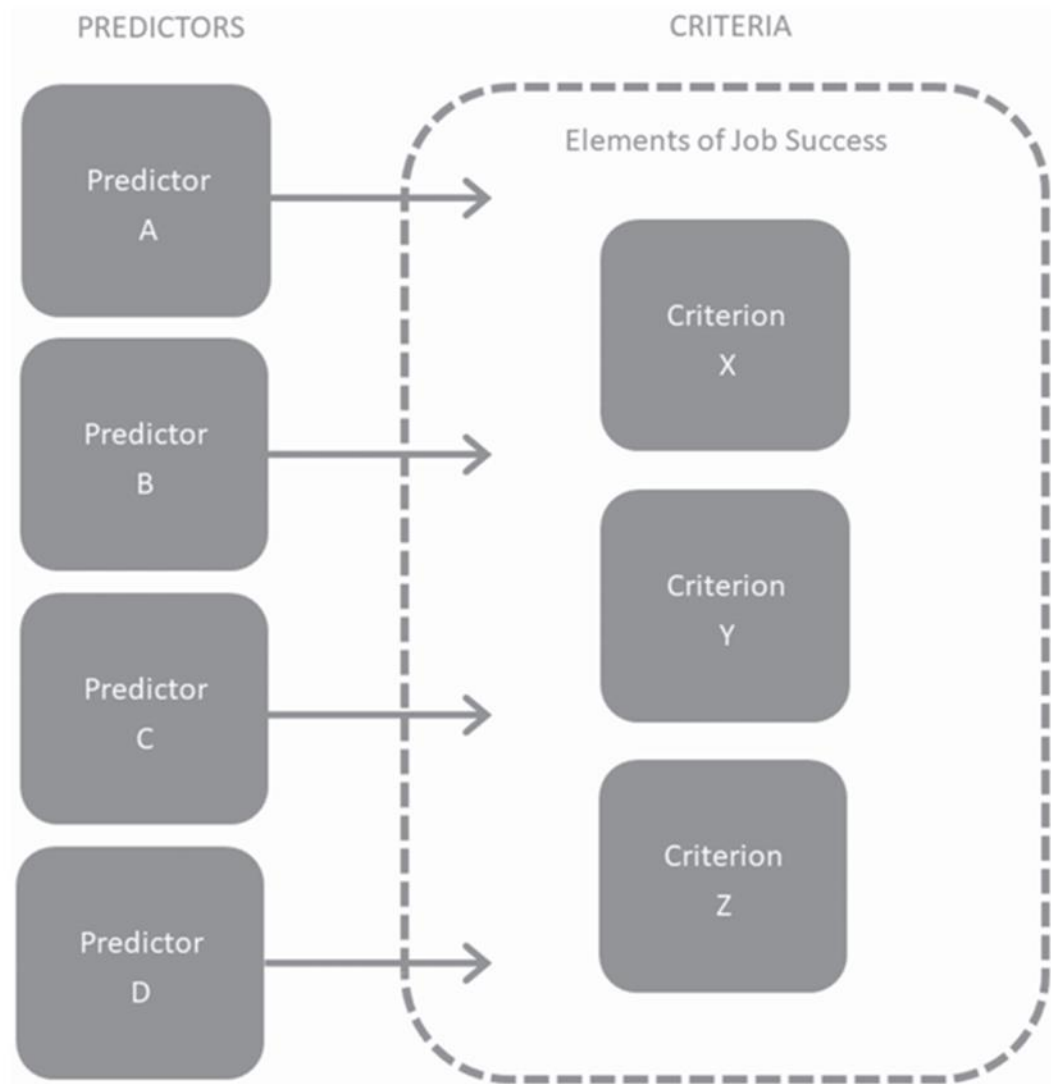


Figure 4.1 Multiple predictors are used in selection decisions to get at the different success criteria.

## Definition

Predictors are measurable information about applicants that relate to success criteria.

## Common Examples

Job-related knowledge, expertise, education, and skills help predict who will succeed.

Criteria: measures of job success typically related to performance

## Collection Methods

Predictors are gathered through resumes, interviews, and employment tests.



# The Complete Model

1

## Measure Predictors

Evaluate resumes, interviews, and test results to gather predictor variables.

2

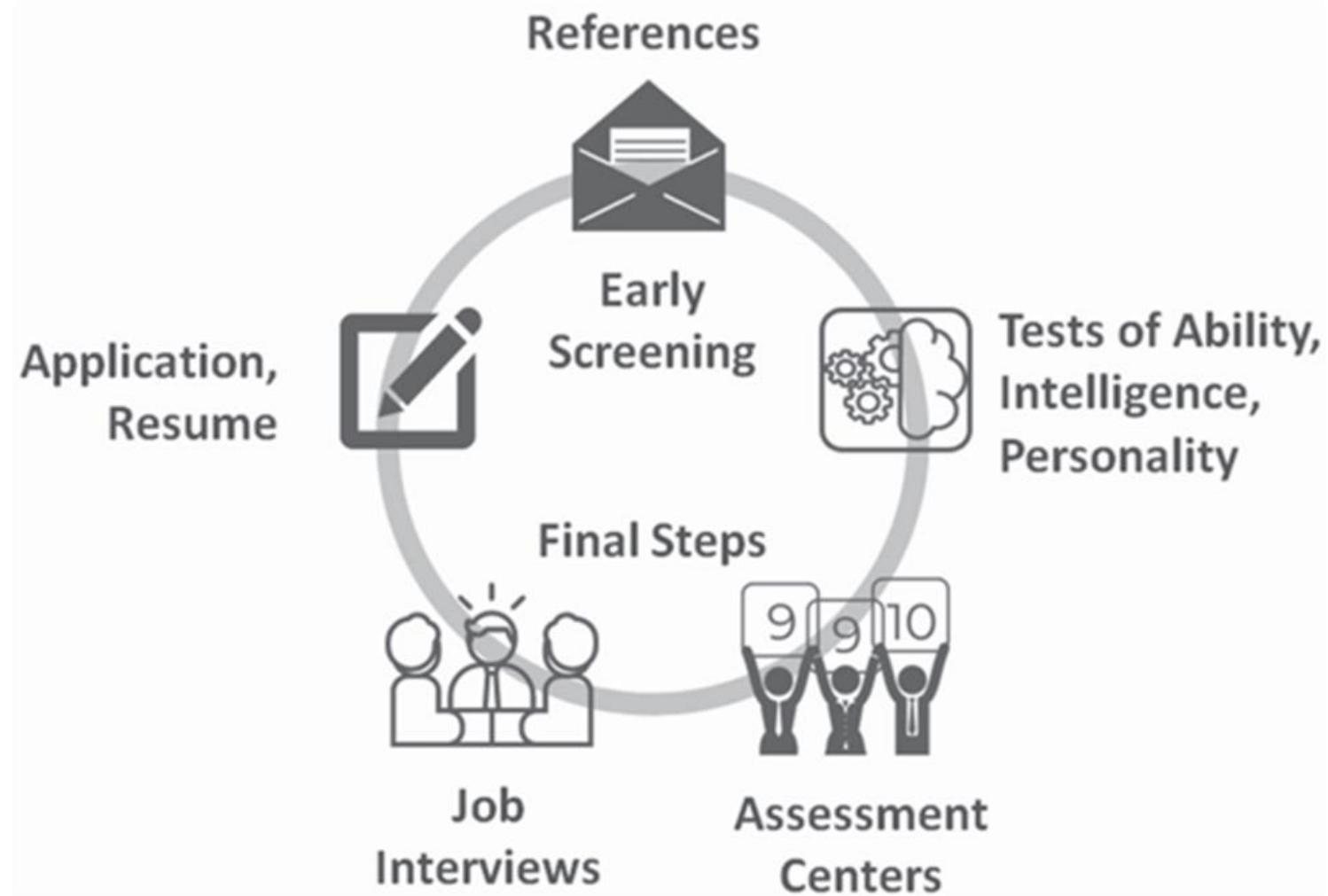
## Select Applicants

Use predictor variables to make hiring decisions.

3

## Evaluate Success

Demonstrate that predictors accurately forecast job success.



*Figure 4.2* Multiple assessment methods are often used during selection. During early screening, most job openings require a resume or application along with references and testing. Once a finalist slate has been determined, most organizations will conduct job interviews and sometimes use assessment centers for higher-level jobs.

# Optimizing Application and Resume Screening

Application and resume screening is the critical first step in identifying qualified candidates.



# Collecting Key Background Information

## Education

Verify that applicants meet the minimum educational requirements for the role. Note any relevant coursework or certifications that align with job responsibilities.

## Work Experience

Assess the quality and quantity of work experience. Consider the complexity of previous roles and the applicant's tenure in each position.

## Accomplishments

Highlight outstanding achievements and contributions. Look for evidence of quantifiable results and transferable skills that demonstrate the applicant's potential.

Applications and resumes serve as a primary source of background information about candidates, including details about their education, work experience, and notable accomplishments. This information is crucial in determining whether an applicant meets the minimum qualifications for a job, such as specific educational degrees or years of relevant experience.



# Avoiding Bias and Discrimination

## 1 Job-Related Questions

Ensure all questions on the application form are directly related to the job requirements and avoid inquiries about protected characteristics.

## 2 Inferred Characteristics

Be aware of potential biases related to race or gender that can be inferred from applications and resumes, and implement training to mitigate these effects.

## 3 Fair Evaluation

Use standardized evaluation criteria and multiple reviewers to minimize subjective judgments and promote fair assessment of candidates.

Avoid asking any non-job-related questions, especially those that may lead to job discrimination. Some of these inquiries involve age, ethnic background, religious affiliation, marital status, or finances.



# Creating a Positive First Impression

1

## Accuracy

Verify that resumes and cover letters are free from typos, grammatical errors, and inaccuracies.

2

## Clarity

Ensure that information is presented in a clear, concise, and well-organized manner.

3

## Relevance

Focus on relevant skills, experiences, and accomplishments that align with the job requirements.

Resumes and cover letters are important because they provide the employer with a first impression of the applicant, and impressions of qualifications from written applications influence impressions of applicants in their subsequent interviews. Therefore, applicants should ensure that there are no typos or mistakes on their resumes and cover letters.





# References and Letters of Recommendation in Employee Selection

References and letters of recommendation provide four types of information: employment history, character evaluations, job performance assessments, and rehire recommendations.

Despite widespread use, these tools have significant limitations in the hiring process.

# Limitations of Recommendation Letters

## 1 Positive Bias

Applicants choose favorable references. This creates overly positive letters that fail to distinguish candidates.

## 2 Legal Concerns

Fear of litigation leads many employers to provide minimal information about former employees.

## 3 Length Matters

Research shows longer letters and those from positive authors receive better evaluations.



# Gender Bias in Recommendations

## Female Descriptions

Women are often described in terms of social skills rather than competence.

## Adverse Impact

This focus on interpersonal qualities can disadvantage women in hiring decisions.

## Better Practices

Letter writers should emphasize women's competence and task execution abilities.

# Improving Recommendation Effectiveness

## Standardized Forms

Graduate programs use forms asking for ratings on specific dimensions.

## Quantifiable Metrics

Graphic rating scales help quantify recommendations for better comparison.

## Confidentiality

Having applicants waive rights to see references can improve accuracy.



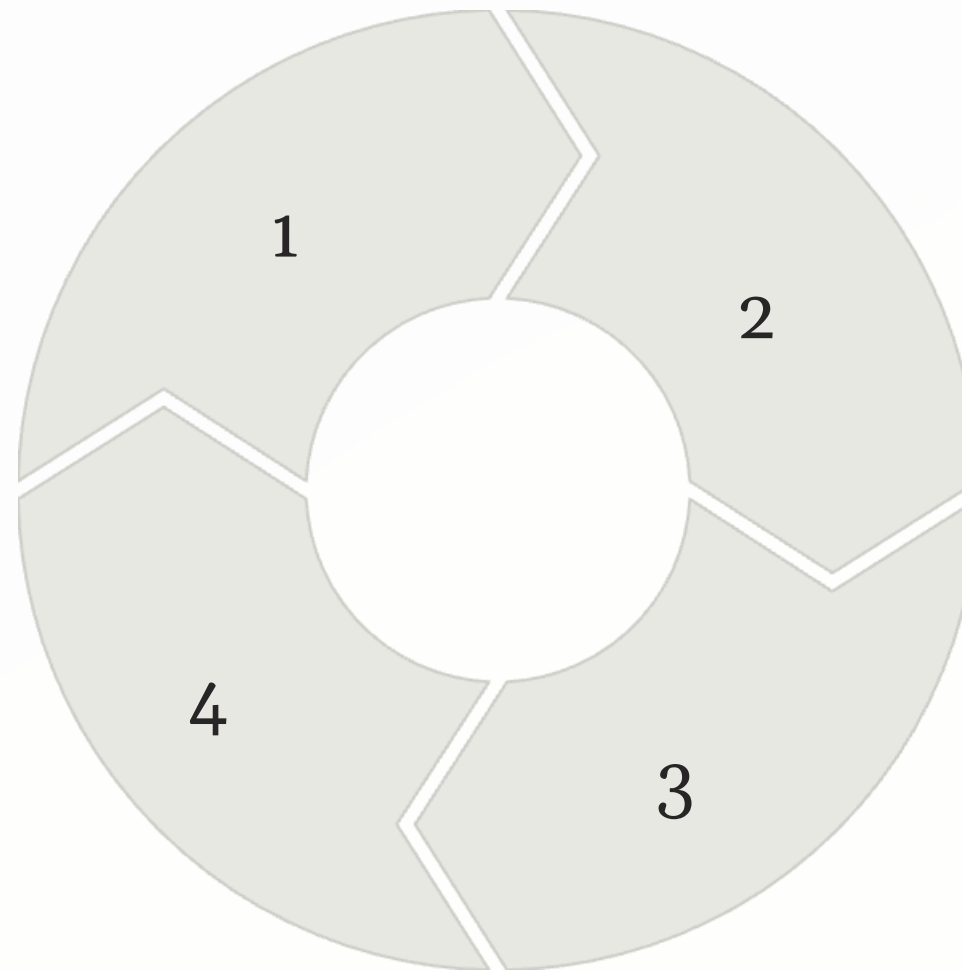
# Background Checks on the Rise

## Growing Trend

Criminal background checks have become routine in hiring processes.

## Limited Research

Despite widespread use, little research exists on organizational impact.



## Common Applications

Standard for law enforcement, childcare, and government positions.

## Employer Protection

Companies use checks to prevent litigation and poor hiring decisions.

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## Using Social Network Sites when Prescreening Job Applicants

The use of social network sites (SNS), such as Facebook and LinkedIn, has become so common that many hiring managers are now searching their job applicants' comments, pictures, and profiles on SNS. According to a survey conducted by CareerBuilder.com, 45% of hiring managers reported that they searched applicants on SNS. The same report also revealed that 35% of employers decided not to hire certain applicants because they found unfavorable comments or pictures of the applicants on the internet. However, the survey also found

that information on a more professional SNS (e.g., LinkedIn) could help strengthen a candidate's likelihood of getting hired.

Are you a potential job applicant? Activity on SNS has both pros and cons. You can now share your life with many friends. You can also join a community to share similar interests or enhance professional skills. Occasionally, however, you may accidentally share information that you did not intend to share, or you may post

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comments that would be considered unacceptable in a professional situation.

One study found that the information on SNS can reveal an individual's personality, work ethics, behavior, and tendencies (Back et al., 2010). Therefore, investigating job applicants' daily behaviors on SNS to see if candidates are suitable for positions may seem to make sense to many employers (Brown & Vaughn, 2011). Nevertheless, organizations need to be cautious when using the information found on SNS for their hiring decisions. For their selection processes to be legally defensible, the information they obtain and utilize should be relevant to job requirements (i.e., ensuring the validity of such information). The use of SNS allows employers to unearth a variety of information about job applicants, including age, marital status, or religious affiliation. The discovery of such information is prohibited

in traditional job application and interview processes. Moreover, contrary to the common perception that SNS reveals undisclosed information about a person, these sites are places where people may present themselves in a socially desirable manner. As a result, employers may end up with inaccurate assessments of job applicants. In addition, there is no consistency in the type of information employers can find, because SNS users can edit privacy settings and customize their profiles. This leads to inconsistent assessment across different job applicants.

Despite these limitations in using information from SNS, such information does have some impact on hiring decisions. If you are an SNS user, you may want to reconsider how and why you use certain SNS. Ultimately, acting more professionally in the "bare-all" online world is advisable.



# Employment Testing: Navigating Stereotype Threat

Employment testing has evolved since World War I intelligence tests. Today, companies and government agencies use various tests to predict job performance.

These assessments measure specific skills, cognitive abilities, and personality dimensions relevant to particular occupations.





# Understanding Stereotype Threat

## 1 Definition

Stereotype threat occurs when group members fear being judged according to negative stereotypes about their group.

## 2 Impact

Performance can be undermined when test-takers encounter cues of negative stereotypes in testing environments.

## 3 Consequences

This situational stressor can create a self-fulfilling prophecy, causing individuals to perform poorly.

# The Challenge for Organizations

## Adverse Impact

Tests should not disadvantage different demographic groups.  
I/O psychologists must mitigate stereotype threat.

## Systemic Issues

Stereotype threat is reinforced through cultural, societal, and organizational levers, making it difficult to eliminate.



# Effective Mitigation Strategies



## Clear Communication

Telling test-takers there are no mean differences across race or gender can reduce threat effects.



## Question Placement

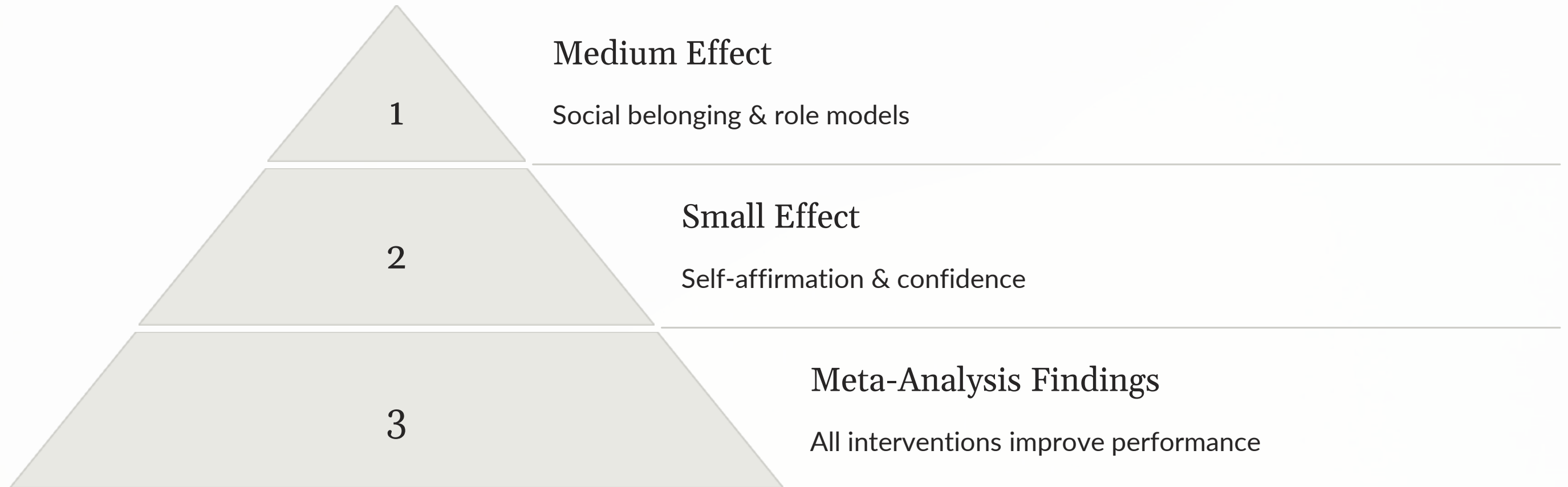
Placing demographic questions at the end of tests instead of the beginning reduces race and gender salience.



## Protective Measures

Simple interventions can significantly improve performance for stereotyped groups.

# Research on Intervention Effectiveness



A meta-analysis of stereotype threat interventions revealed that all approaches help, but with varying effectiveness. Promoting social belonging and providing in-group role models showed stronger results than resilience-focused interventions.



# Creating Fair Testing Environments

## Recognize the Issue

Acknowledge that stereotype threat affects test performance for women and people of color.

## Implement Interventions

Use evidence-based approaches to reduce threat in testing environments.

## Monitor Outcomes

Continuously evaluate if interventions are effectively reducing performance gaps.



# Understanding Test Formats

Test formats vary widely in employment settings. They can be categorized by administration method, timing, and response format.

Each format serves different assessment needs and measures distinct attributes.

# Individual vs. Group Testing

## Individual Tests

Administered to one person at a time. Requires more administrator involvement.

Used for tests with sophisticated apparatus or requiring constant supervision.

## Group Tests

Administered to multiple people simultaneously. Administrator serves as monitor.

More cost-effective. Increasingly administered online, blurring the distinction.



# Speed vs. Power Tests

1

## Speed Tests

Fixed time limits. Focus on number of items completed.

Examples include typing tests and scholastic achievement tests.

2

## Power Tests

Sufficient time to complete all items. Focus on accuracy.

Typically contain difficult items. Measures maximum performance potential.



# Paper-and-Pencil vs. Performance Tests

## Paper-and-Pencil Tests

Written responses in forced choice or essay format.

Includes paper versions and online tests requiring written replies.

## Performance Tests

Involve manipulation of physical objects.

Examples include typing tests, manual dexterity, and grip strength assessments.

## Computer-Based Testing

Most written tests now web-based. Offers greater flexibility.

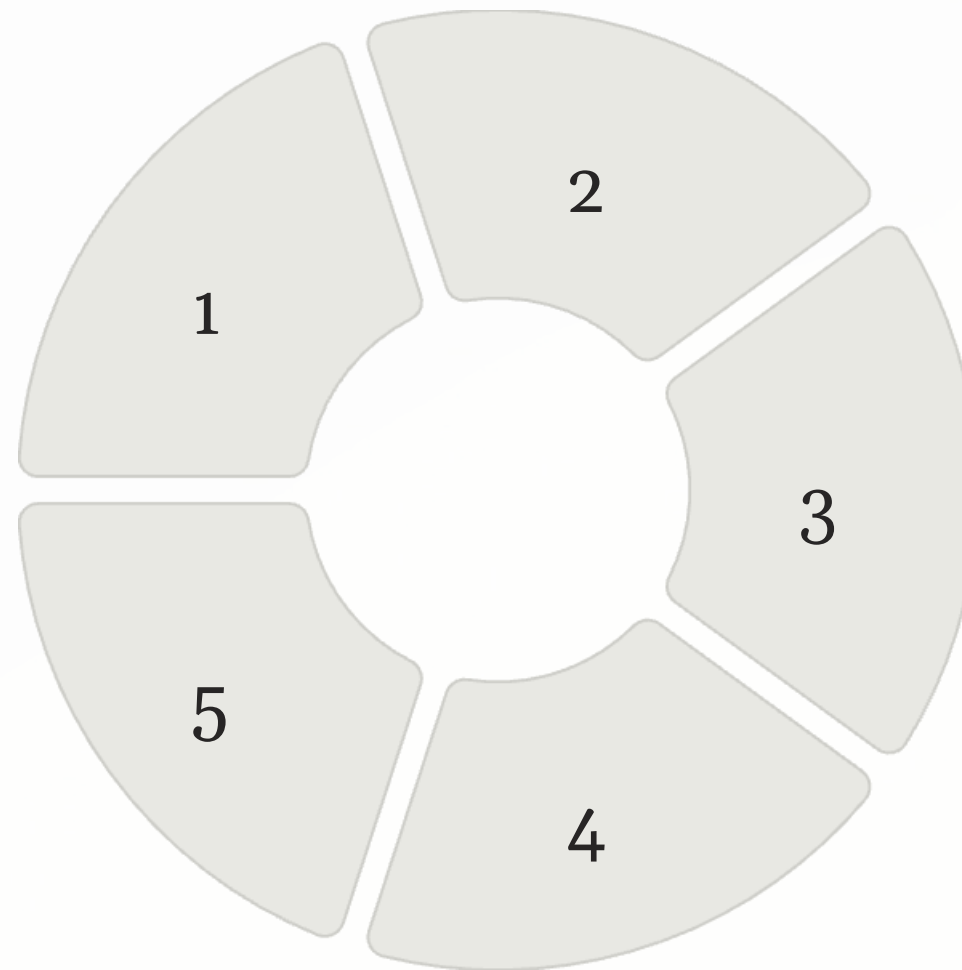
Performance tests can use computer simulations.



# Test Classification by Attributes

**Biographical Information**  
Biodata instruments capturing personal history and experiences.

**Personality Traits**  
Measures behavioral tendencies and character attributes.



## Cognitive Abilities

Measures intelligence, reasoning, and problem-solving capabilities.

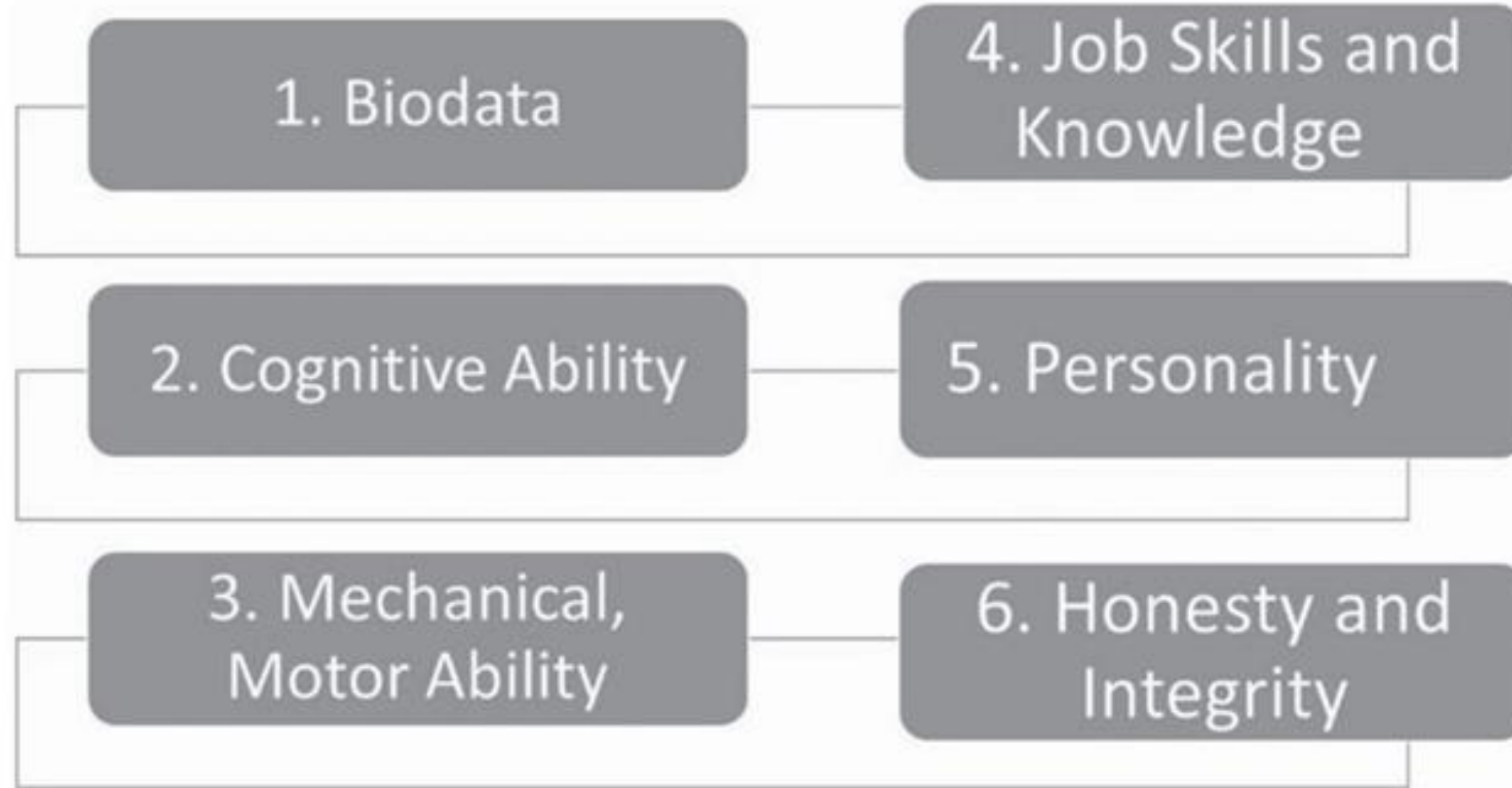
## Mechanical & Motor Skills

Assesses physical capabilities and technical aptitudes.

## Job Knowledge

Evaluates specific skills and knowledge required for positions.

## Types of Tests



*Figure 4.4 Types of tests.*



# Biodata Instruments in Employee Selection

Biodata tests measure background information and personal characteristics. They help select employees systematically.

These instruments transform application information into forced-choice employment tests. They assess education, work history, attitudes, values, and preferences.

# Development and Application

## 1 Custom Development

Unlike standardized tests, biodata instruments require extensive research to develop and validate for specific jobs.

## 2 Targeted Use

Typically designed for one specific job, they're most commonly used for higher-level positions.

## 3 Predictive Power

They provide detailed behavioral history descriptions, which strongly predict future behavior.





# Considerations and Limitations

## Privacy Concerns

Many questions are personal in nature, raising privacy considerations.

## Discrimination Risk

Questions about age or finances may unintentionally discriminate against minority groups.

## Expert Administration

Should only be developed and administered by professionals trained in test validation.

## Underutilization

Despite proven success, biodata instruments remain surprisingly underused in selection processes.



# Cognitive Ability Tests in Employee Selection

Cognitive ability tests range from general intelligence to specific skills. They predict job performance across various roles.

Tests like Otis and Wonderlic measure verbal and numerical abilities. They help screen for clerks, assembly workers, and supervisors.





# Effectiveness and Concerns

## Predictive Value

Research shows general intelligence tests are good predictors of job performance (Bertua et al., 2005).

## Training Success

UK meta-analysis found cognitive tests predict both job performance and training success.

## Potential Bias

Concerns exist about adverse impact on women, people of color (Rupp et al., 2020), and older applicants (Fisher et al., 2017).

# Standardized Ability Tests for Job Screening

Standardized tests measure mechanical, motor, and sensory abilities. They help screen job applicants for specific positions.

These tests predict job performance in roles requiring specialized skills. They ensure candidates have the physical capabilities needed.





# Types of Ability Tests

## Mechanical Tests

The Bennett Mechanical Comprehension Test (BMCT) measures ability to apply physical laws. It predicts performance in machinery and engineering jobs.

## Motor Skills Tests

Crawford Small Parts and Purdue Pegboard tests measure fine motor dexterity. They time how quickly someone can manipulate small parts.

## Sensory Tests

Visual acuity tests like the Snellen Eye Chart and hearing tests screen candidates. They're crucial for inspectors and drivers.



# Job Skills and Knowledge Assessment

Standardized tests assess specific job skills or knowledge domains. These range from clerical skills tests to computer competency evaluations like the Judd Tests.

Work sample tests measure applicants' abilities to perform critical job tasks under standard conditions. They're highly job-related but expensive to develop.

# Work Sample Tests

1

## Job-Related

Work samples directly test critical job tasks under standardized conditions.

2

## Realistic Preview

They provide applicants with a clear picture of actual job duties.

3

## Strong Predictor

Research shows they effectively predict job performance.

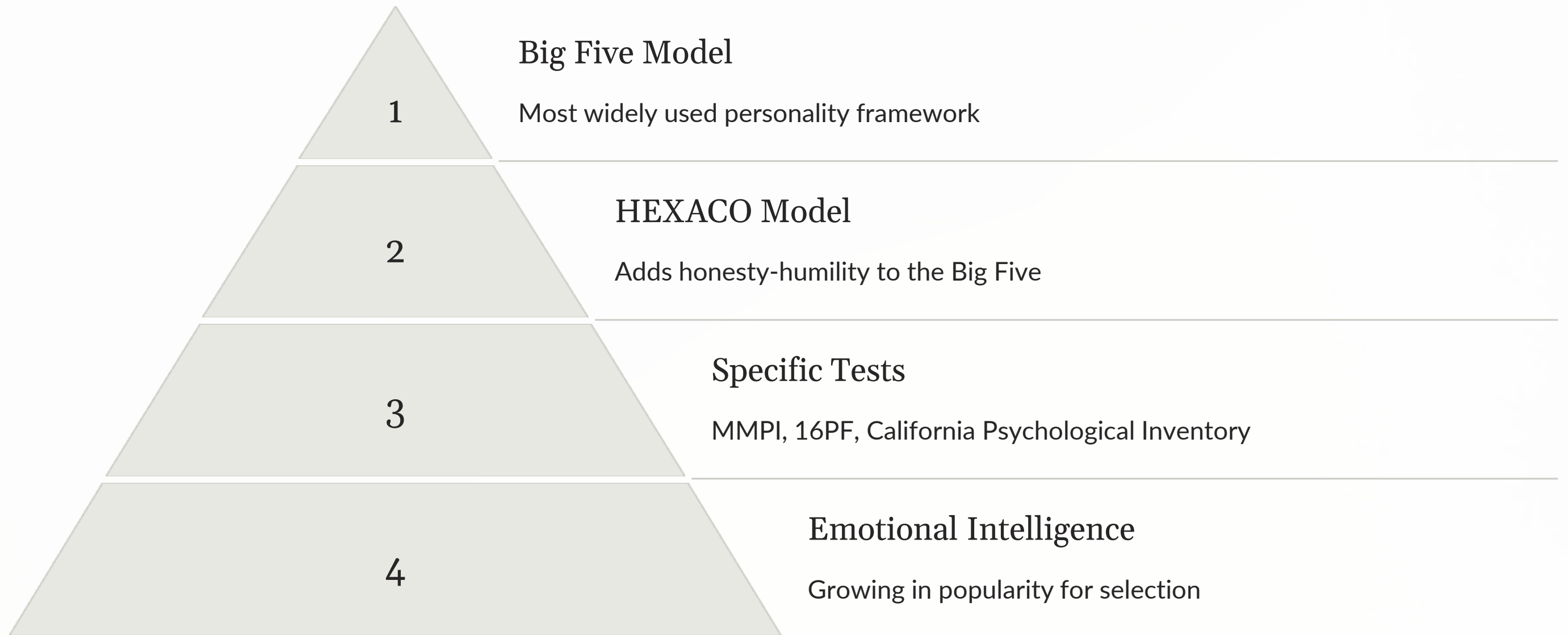
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## Resource Intensive

They're expensive to develop and time-consuming to administer.



# Personality Assessments



Conscientiousness is the strongest predictor of job performance, followed by emotional stability.



# Considerations and Concerns

## Legal Concerns

Personality tests may violate the Americans with Disabilities Act by affecting those with psychological disorders.

## Gender Bias

Extraversion traits like assertiveness can be perceived differently based on gender stereotypes.

## Emotional Intelligence

This construct combines personality, ability, and intelligence. It can be trained and improves performance.

# Honesty and Integrity in Employee Selection

Polygraphs were once widely used to screen job applicants for dishonesty. These devices measured physiological reactions like respiration and blood pressure.

Research questioned their validity, particularly due to "false-positive" errors. This led to federal restrictions in 1988 limiting their use in employment screening.





# The Shift to Integrity Tests

## Paper-and-Pencil Measures

Employers now use integrity tests that ask about past dishonest behavior or attitudes condoning dishonesty.

## Validity Concerns

Like polygraphs, these tests raise concerns about "false positives" - honest people judged dishonest.

## Research Support

Meta-analyses show integrity tests predict counterproductive behaviors, organizational citizenship, and task performance.





## Other Screening Tests: Beyond the Basics

Many employers use screening tests to ensure workplace safety and performance. These go beyond traditional assessments we've discussed previously.

Drug testing is common in the U.S., though accuracy concerns exist. Unlike polygraphs, few restrictions limit their use.

# The Cannabis Testing Controversy

## 1 Legal Complexity

States vary widely in their approach to cannabis testing. Some limit pre-employment screening, others have specific medical exceptions.

## 2 Workplace Impact

Cannabis use before work correlates with performance declines. However, after-hours use shows no relationship to job performance.

## 3 Employer Rights

Some states still allow employers to deny employment to those testing positive for cannabis, despite changing legal status.



# The Effectiveness of Employee Screening Tests

Standardized tests for screening potential employees remain controversial. Critics cite low validity coefficients (0.20) of certain tests, while supporters believe tests are the best predictors of job performance.

The effectiveness depends on how well tests measure specific skills required for the job. Most effective screening uses multiple instruments in combination.



# Test Batteries: Combined Approach

## Multiple Tests

Most jobs are complex with various tasks. A single test can only predict one aspect of job performance.

## Better Prediction

Using combinations like personality and ability tests predicts job performance better than either test alone.

## Cost-Effective

Utility analyses show standardized testing programs are usually cost-effective for employers.



# Economic Impact & Ethics

## Financial Gains

Hunter and Schmidt estimated improved screening could increase U.S. gross national product by tens of billions per year.

## Ethical Concerns

I/O psychologists prioritize ethics in testing. SIOP published guidelines for validation and use of selection procedures.

## Privacy Protection

Protecting the privacy of test-takers remains an important consideration in employment testing.

# The Issue of Faking

## 1 Common Misconception

Laypersons believe employment tests are easily faked. Research shows this isn't true.

## 2 Detection Methods

Some tests include subscales designed to determine if a test-taker is attempting to fake responses.

## 3 Difficult to Game

Test-takers often can't determine which responses are the desired ones.

## 4 Robust Measurements

Personality and integrity tests remain valid even when test-takers try to fake their responses.





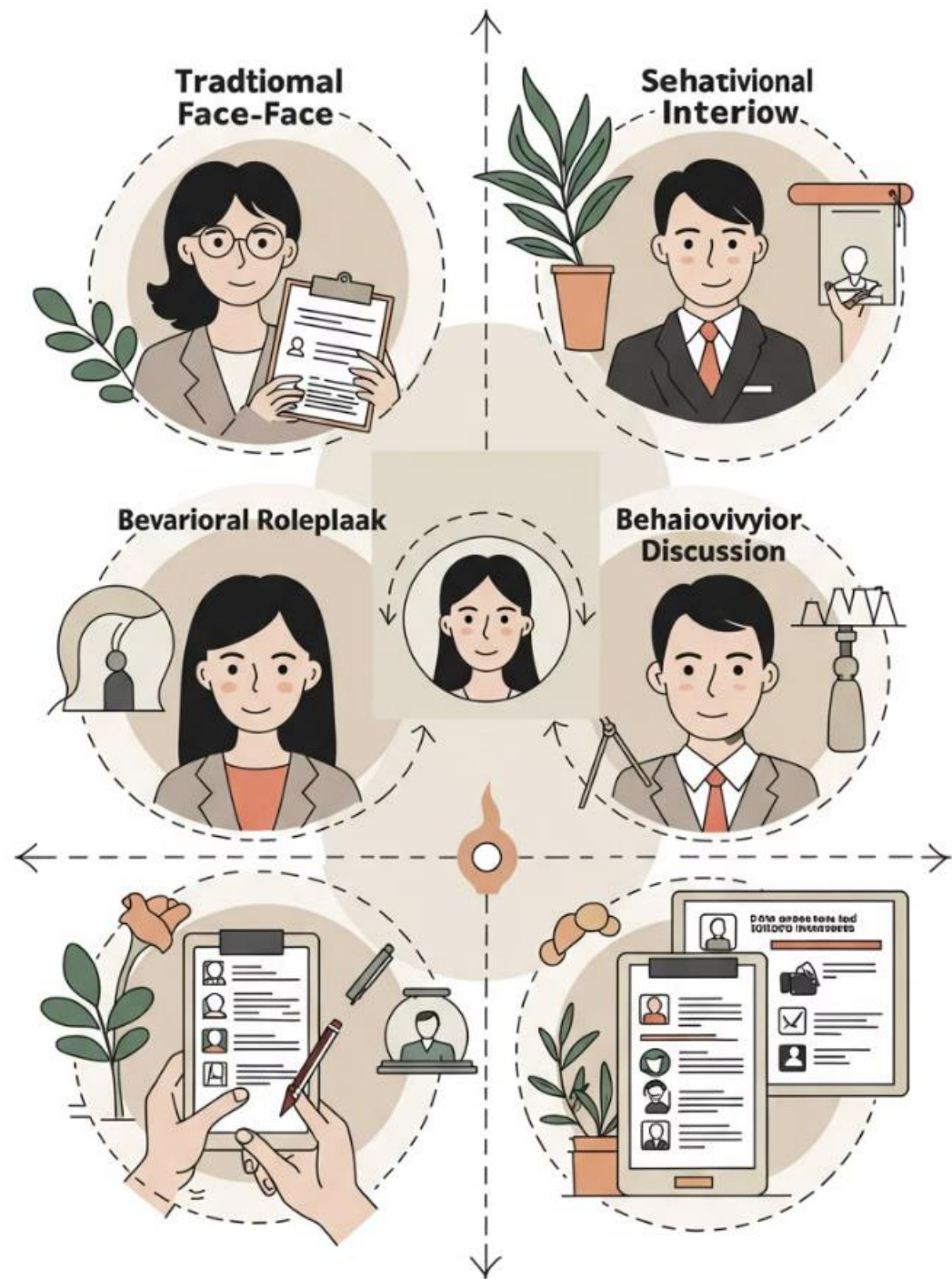
# The Art and Science of Hiring Interviews

Hiring interviews are the most widely used employee screening tool. Despite their popularity, they can be poor predictors of job performance if not conducted properly.

I/O psychologists have contributed greatly to understanding interview effectiveness. Care must be taken to ensure reliability and validity of applicant judgments.



# Interview Formats



Traditionale Interview Formaten

# Interview Formats and Objectives

1

## Traditional Interviews

Often conducted haphazardly with little structure, resembling casual conversations rather than assessment tools.

2

## Situational Interviews

Applicants imagine how they would handle specific job-related hypothetical situations.

3

## Behavioral Interviews

Candidates draw on past job incidents to address hypothetical future work situations.

4

## Video Interviews

Conducted via live videoconference or computer-video interface, especially during COVID-19.



# Key Interview Objectives

## 1 Fill Information Gaps

Supplement resume data and measure factors only available face-to-face, like poise and communication skills.

## 2 Provide Realistic Job Previews

Help candidates decide if they want the job and offer initial orientation to the organization.

## 3 Serve as Recruitment Tool

Create positive interactions with the public as a direct representative of the company.

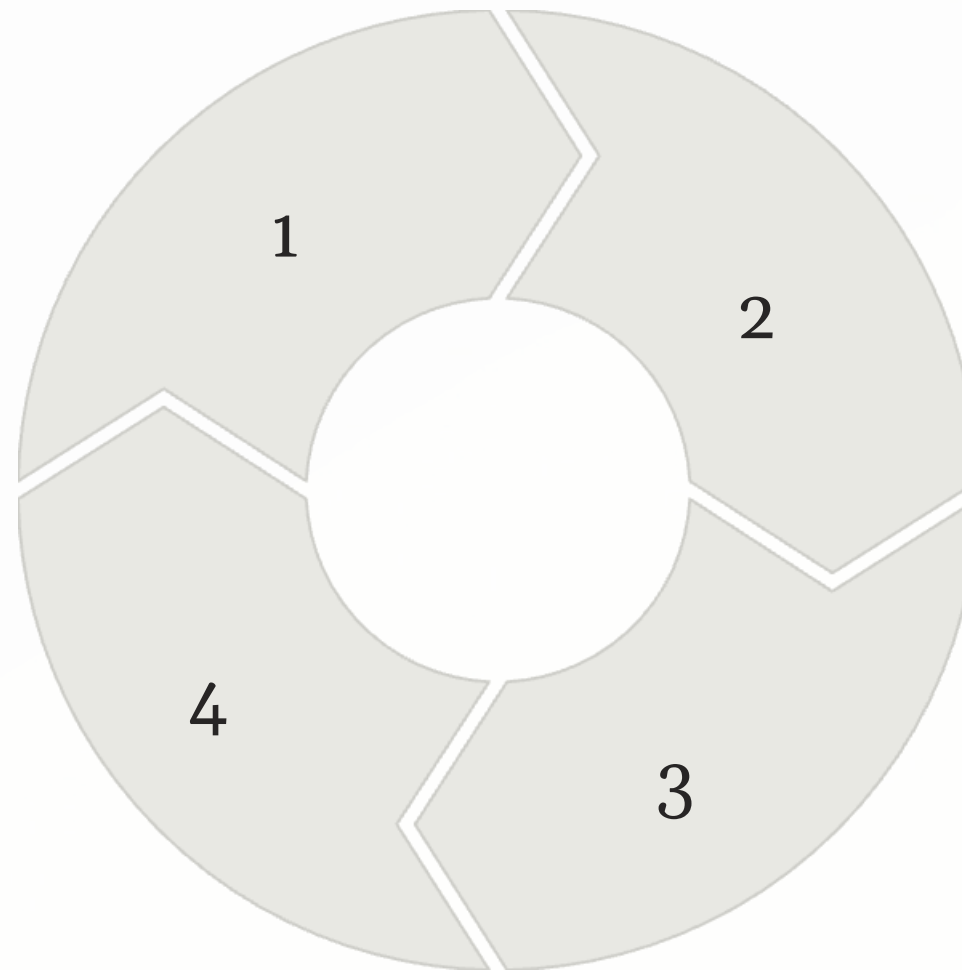
# Challenges to Interview Validity

## Lack of Structure

Different questions for different applicants make comparisons difficult.

## Snap Judgments

Decisions made in the first moments that interviewers then seek to confirm.



## Low Reliability

Different interviewers may evaluate the same candidate differently.

## Interviewer Biases

Gender, race, appearance, age, and other factors can unfairly influence judgments.



# Improving Interview Effectiveness

## Structured Format

Ask the same series of questions to all applicants to enable fair comparisons and reduce snap judgments.

## Multiple Evaluators

Courts favor hiring processes that use multiple interviewers' evaluations to reduce individual bias.

## Job-Relevant Questions

Ensure interview content matches actual job requirements to improve predictive validity.

## Balanced Assessment

Recognize that interviews predict beyond cognitive ability when properly structured.

# Making Employee Selection Decisions

Effective hiring requires balancing data from applications, personality tests, intelligence assessments, and interviews. Organizations must minimize two types of errors: false-positives (hiring unsuccessful candidates) and false-negatives (rejecting successful candidates).



# Clinical vs. Statistical Decision Making

## Clinical Approach

Subjective decisions based on experience and personal beliefs about which information matters most.

Error-prone and often inaccurate despite experience.

## Statistical Approach

Combines information objectively with predetermined weights for each factor.

Processes all applicant data without human limitations.



# Multiple Regression Model

1

## Combines Predictors

Uses several predictors in an additive, linear fashion to predict job performance.

2

## Compensatory

High scores on one predictor can compensate for low scores on another.

3

## Limitations

Some critical job requirements cannot be compensated for by other strengths.



# Multiple Cutoff Model

## Non-Compensatory

Applicants must score above minimum cutoffs on all predictors to qualify.

## Minimum Standards

Ensures all candidates have basic abilities in all required dimensions.

## Legal Considerations

Cutoff scores must be set carefully to avoid unfair discrimination.





# Multiple Hurdle Model

## Initial Screening

First hurdle might be passing a civil service exam or application review.

## Sequential Evaluation

Candidates proceed through ordered sequence of assessments.

## Final Selection

Only candidates who clear all hurdles are considered for hiring.

## Efficiency

Unqualified applicants are eliminated early, saving time and resources.



# Employee Placement: Finding the Right Fit

Employee placement is the process of deciding which job hired workers should be assigned to. It differs from selection, which deals with hiring decisions.

Placement becomes crucial when there are multiple openings or when organizations need to reassign workers from closed departments.

# Beyond Basic Placement

## Traditional Approach

Personnel specialists find the best "fit" between worker attributes (KSAOs) and job requirements.

## Modern Perspective

Today's approach considers how individuals fit with specific work groups and the organization's culture.

## Benefits

Good placement predicts better performers and increases employee well-being.

