

A Critical Review of Literature on Employment Selection Tests

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Abstract

This independent conceptual study paper discusses a critical review of literature on employment selection tests. The objectives are: to establish whether employment selection tests are the panacea of getting the right people for the right job. Secondly, to identify and classify employment selection tests and indicate weightings for different job fits. Finally to advance a critical analysis of employment selection test types and grey areas for recommendations to potential employers based on available research findings by various scholars. The paper further focusses on the various types of employment tests, definitions of tests, role of tests and the basis on which employment tests are determined; methods, objectives and aptitude as a process in Human Resource hiring by various organizational sectors. The paper also covers several areas in detail to give in-depth review and analysis of testing as a means of identifying the right people on right jobs namely employee selection, purpose of selection, employee selection styles and stages thereon. The paper discusses types of tests namely; attitude tests, achievement tests, personality tests, objectives tests, projective tests, situation tests, interest tests and the process namely; recruitment, methods and objectives are also highlighted. The critical review of this paper captures a section on review of theories relevant to the concept of selection tests for employment process and placement of Human Resource personnel in organizations.

Keywords

Employment, Job Placement, Selection Tests, Psychomotor Tests, Personality Tests

1. Introduction

Organizations globally invest on human capital for the day to day management

of their activities. Individual job knowledge and skills in every department is critical for the ultimate success of any organization, be it a private entity, government or even Non-profit making. Organizations need to get human resource that fit the various aspects of a specific job. To succeed in this process, all organizations insist on some pre-employment tests to determine knowledge, integrity, cognitive ability, personality, emotional intelligence and physical abilities before placement. That is the more reason why it is necessary to critically review on literature on employment tests for an in-depth understanding of the how, why the processes are designed and conducted for a meaningful outcome in line with the objectives of any organization.

Selection Tests are defined as a sample of an individual's behaviour performance or attitude. According to Cronbach, L. J., & Meehl, P. E. (1955), a test is a systematic procedure for comparing the behaviour of two or more persons. While conducting tests, the selection panel ensures the following are achieved; first, tests eliminate incompetence and unsuitability of candidates, tests ensure psychological, mental and analytical capacities of a person are identified. Tests can also be used as a tool to understand the nature of a person and their career development by providing analytical, rational and objective comparison between the candidates, finally, tests ensure that accuracy and perfection in the selection procedure is duly achieved. The above scenario is only possible by determining tests types on the basis of methods of focus on either individual or group objectives and aptitude.

Employee Selection can be defined as a process of putting right people on right job. It involves matching the requirements of an organization with the right skills and qualification. These qualifications should be relevant to ensure full success of the organizations objectives and goals to achieve this while conducting selection during recruitment process. It must identify the common package of knowledge skills and abilities (KSA). This is according to F. John Reh (2019), the acronym KSA is mostly used to define the requirements of job opening and comparing of candidates when making a final selection. The recruiter may therefore look for an applicants' KSA profile to determine the selection criteria. The use of KSA framework was associated with the United States Federal Government Agencies and since then, the model (KSA) has expanded to include assessment of training and coaching needs in existing workforce. However one of the criticisms of KSA, is that it's easy to see the three terms (knowledge, skill and ability) interchangeable or at the very list, overlapping and yet they are distinctly different dimensions of an individual's qualification.

The challenge in selection of candidates lies on the fit element between what the applicant can and wants to do against the organization's needs. It is more difficult to possibly tell exactly what the interviewee (applicant) really can and wants to do. The fit between the two aspects of both on the side of the person and the organization shall determine the willingness for both the employer and the employee to accept placement.

Merits and Demerits of Selection Tests

Moving forward lets discuss some advantages and disadvantages of tests in the selection process for employees. For advantages we find the issues of proper assessment. Tests provide the basis for finding out the suitability of candidates for various positions. Proper assessments provide the indications of mental capability, aptitude, liking and interests of the candidates for the job for which the candidate applied. Secondly tests provide objective assessment in terms of objective criteria than any other methods since it eliminates subjectivity of every kind in a candidate. Thirdly it is a uniform basis in assessment (tests) because tests provide a uniform platform for comparing the performance of applicants. Some tests are given to candidates and their scores will enable the selectors to determine their levels. The other advantage of selection tests is the provision (selection) for better persons. Tests determine as earlier indicated, the aptitude, temperament and adjustability of candidates on jobs for which they are most suitable for the purpose of exposing their efficiency and satisfaction. Finally tests through proper selection of persons will also reduce labour turnover. If unsuitable persons are selected, they may leave their jobs sooner than later. For this reason, interest tests will help in knowing/predicting the liking of applicants for different jobs. It is therefore safe to observe that when a person secures a job according to his interest and temperament, he or she would not dream of quitting the job thus ensuring control on irregular job mobility (Lite, 2021).

However, the flip side of tests—disadvantages or demerits for that matter includes the following: unreliability, wrong use and fear of exposure. Tests can be unreliable because the inferences drawn from the tests may not be correct in all cases. This is so because the skill and ability of a candidate may not be properly judged with the help of tests. Secondly, tests may also be misused by the employees since the interviewers may be biased towards certain persons based on vested interest. The third demerit is that some persons may not submit to tests for fear of exposure of inherent weakness and yet they are equally competent thus depriving the services of such personnel who are unwilling to appear for tests but are otherwise suitable for the concern

(<https://www.yourarticlelibrary.com/hrm/job-selection-test-purpose-types-ability-and-developing-a-test-programme/35278>).

2. Theories of Selection Tests

It is abundantly clear that while attitude can have a powerful effect on behaviour, they are not cast on stone. The same influences that lead to attitude formation can also create attitude change. A review of relevant theories below could shade more light on the above statement of fact.

2.1. Learning Theory

Propounded by Piaget (1972), Bloom (1956) and Gardner (1983). This theory is relevant to selection tests in several ways. The methods used involve, drill and practice for example when selecting police officers, armed forces officers and

National Youth Service training programme. The physical abilities of candidates is crucial in identifying the right person for the job. Role learning is required to establish their memory level when recruiting forces, authors, collaborative group work, self-guided learning based on personal experience, mind maps and charts to facilitate memorization are all achievable through learning theory. Learning theory promotes the following ternate in candidates lined up for a selection process; Behaviourism, Cognitivism, Constructivism and Connectivism. Discussing this further, the above named psychologists noted that Behaviourism suggests that behaviours are influenced and learned from external forces and can be observed and quantified. Pavlov Dog experiment is a popular element of behaviourism. Classical Conditioning are directly motivated by reward to be obtained. Similarly employees are motivated by rewards they are expected to receive from a job well done. Panel and interviewers can apply this concept during selection process to enable the potential employee to open up to the panellists for better assessment of the person's behaviour. Constructivism theory of learning is equally relevant in selection process since it promotes further learning based on previous experience. This theory expresses the fact that change in attitude can be achieved through classical conditioning, operant conditioning and observational learning. Classical Conditioning can be used to create positive emotional reactions to an object, person or event by associating positive feelings with the large object. Operant Conditioning can be used to strengthen desirable attitudes and weaken undesirable ones. People can also change their attitudes by observing the behaviour of others.

2.1.1. Elaboration Likelihood Theory

Propounded by **Charles M. Reigeluth (1992)**. He believes that instruction is made out of layers and that each layer of instruction elaborates on the previously presented ideas. This is a theory of persuasion. It suggests that people can alter their attitudes in two ways. First they can be motivated to listen and think about the message thus leading to attitude shift or they might be influenced by the characteristics of the speaker, leading to a temporary or surface shift in attitude. Messages that are thought-provoking and that appeal to logic are more likely to lead to permanent changes in attitude.

The relevance of this theory to selection test is that an organization can hire a person without a wide experience for the job but subject him/her to training programmes and through such, learning instructions will elaborate on the employees previously acquired ideas/knowledge for the jobs' effective delivery. However, this theory (ET) falls short of providing for authentic or situated learning since the use of the three primary structures (conceptual, procedural and theoretical) are viewed as a design constraint in promoting effective learning process. Also Elaboration theory does not accommodate learner's prior knowledge. This is an outstanding criticism of the theory.

2.1.2. Dissonance Theory

This theory observes that people can also change their attitudes when they have

conflicting beliefs about a topic or a subject matter. Dissonance theory, explores how to reduce the tension created by these incompatible beliefs (<http://www.psychologynotesHQ.com>). People often shift their attitudes from the concepts advanced by the above theories. It is pertinent to note the significance of conducting attitude test in the process of hiring certain cadres of employees and in general, since attitude can affect several outcomes in any organization in terms of human resource placement. According to Berens, V.L. (2001), individuals of different personality types may shift to take the roles needed by the mission of their team and thus look like other temperaments.

3. Review of Selection Test Types

3.1. Psychomotor Tests

This is a test that assesses the subject's ability to perceive instructions and perform motor responses often including measurements of the speed of the reaction. Psychomotor tests are used for determining the precision, coordination, control, dexterity and reaction time for candidates in the hiring process. It not only assesses the mechanical performance of the candidate but also their ability to understand and follow instructions and perform motor responses. The test measures the candidate's reaction time, multitasking capacity and coordinating abilities. The evaluator rates the candidate's performance against a predefined benchmark. This is standardized for all applicants. Good examples may include tasks like pilot of planes, drivers, machine operators, surgical activities conducted by doctors, sports (football, volleyball, basketball) all require speed and accurate reaction in time by the subject (person). In this regard therefore there is need to design tests (aptitude) that would identify the most suitable person for the job during the recruitment process. In nursing, psychomotor skills such as taking blood pressure and inserting an intravenous line are activities that are movement oriented. These skills have an underlying rationale and many of the skills require clinical reasoning to decide on what the findings mean and implication for patients care. In effect this means that while hiring health care workers in general, the psychomotor test approach is desirable to ensure proper identification of the right person for clinical activities for the benefit of patients.

3.1.1. Attitude Test

Attitude testing is done to measure people's attitudes, the purpose of which is to quantify theories beliefs and behaviours to inform decisions. In psychology, an attitude refers to a set of emotions, beliefs and behaviours towards a particular object, person, thing or event (Kendra Cherry and Stephen Gaus). The two psychologists observed that attitudes are often the result of experience or upbringing and they can have a powerful influence over behaviour. They further noted that attitudes are enduring and can also change. Social psychology has identified the three major components of attitude namely.

Cognitive component: this aspect of attitude reflects on people thoughts and

beliefs about the subject.

Affective component: reflects on how the object, person or event makes you feel.

Behavioural component: reflects on how attitude influences your behaviour. Attitudes can also be explicit and implicit. Explicit attitudes are those that we are consciously aware of and clearly influence our behaviours and beliefs while implicit attitudes are at the unconscious level and involuntarily formed and unknown to us but are still having an effect on our beliefs and behaviours. Attitude testing in employment sector is a very important aspect of identifying the right person for the right job for any organization. This can be explained by reviewing the aspects of attitude formation determined by a number of factors that can influence how and why attitudes form. Attitude forms from the following factors in life.

Experience: attitudes may emerge due to direct personal experience or from observation.

Social Dimension: social roles and social norms can have a strong influence on attitude. Social roles relate to how people are expected to behave in a particular role or context, while social norms involve society's rules for what behaviours are considered appropriate. An organization seeking to hire a staff for the position of welfare officer, public relations officer or counsellor need to consider this factor for effective output.

Learning: this is yet another factor that can lead to formation of attitude in people; for example advertisers use classical conditioning to influence people's attitudes towards a particular product. An organization seeking to hire a marketing director need to design attitude tests that can provoke this ability in the potential employee. Other ways of attitude formation may include conditioning and observation. Social psychologist have also found that attitudes and actual behaviour are not always perfectly aligned and hence have identified the following factors influencing attitude strength; expertise on the subject, expectation of favourable outcome, personal experience, win/lose situation due to an issue and effect of repeatedly expressed attitudes.

3.1.2. Vocational Aptitude Test

This is an instrument designed to assess the abilities, interest, personality traits and other factors deemed essential for success in a particular occupation namely a test designed to test a person's physical abilities needed for a particular job such as police officer, army officer, national youth service graduates, fire fighters among others. Such tests are often used to assess how well the participants profile on these dimensions, matches the profile of the typical or ideal person in the occupation.

3.1.3. Logical Aptitude Test

This refers to a broad group of aptitude tests which test candidate's problems solving ability. These tests may be administered for any position at any level of

recruitment but they may be particularly common when recruiting for positions which require significant problem solving ability or higher use of logic. Practising logical reasoning tests is an ideal method of preparation as it allows one to learn from self-mistakes, and this leading to improved performance with every subsequent trials. Furthermore it promotes experiencing time limits, the tests layout and overall test norms that could ease worries and anxieties about the test in terms of familiarization with such tests. The end effect of such experience is that a candidate who has undertaken a logical test numerous times and noted mistakes is likely to learn from them and hence develop less nervousness than first time candidate. Therefore Aptitude tests focus on specific areas namely vocational and logical aptitudes. These are used to measure individuals attitude, interest and capacity to work, whereas group tests involve a large number of people (candidates) tested together like terminal examinations, police/military selection (physical), exercise. Tests are also conducted on assessing leadership skills. Intelligence tests require to identify a person's mental ability, judgement capacity and learning skills to let the imagination and visualization capacity to be well understood. For personality tests, people are evaluated in terms of traits such as emotions, expressions, confidence and courage. Trade tests identify how much a person is competent to do a specific nature of job and level of understanding.

Finally, achievement tests practically checks people skills, abilities and knowledge during the selection process in a practical manner. During an interview process, candidates are exposed to an artificial environment to stimulate their behaviour in one particular circumstance in a measureable way since the selected candidate(s) will have to take up a lot of job responsibilities. In future an assessment test becomes mandatory since this type of test is conducted to extract the potential of the candidate to work in an authoritative position. While selection process of candidates are administered, interviewers need to understand the adaptability of them for the job allocated to that person(s). It is necessary to find out how much they are receptive towards the job they applied for and this can only be measured on the basis of aptitude through vocational aptitude test approach. Some candidates apply their own minds and ideas to make their work perfect and interesting by using their logical capacity and innovation in a unique way. This category of employees are only identifiable through logical aptitude tests

3.1.4. Different Types of Logical Reasoning Tests

There are several types, namely Inductive Reasoning—the ability to reach general conclusion based on perceived-patterns observed overtime in specific events. This type of reasoning is often used in everyday life and is therefore practical to work place environment. The second type of logical reasoning in Deductive Reasoning—this involves a general rule or principle that leads to specific conclusion. These tests are used to evaluate and measure a candidate ability to make

logical arguments and draw sound conclusions based on provided data as well as identify flaws in a piece of information.

The third type is Abstract Reasoning—also known as conceptual reasoning. It measures ones lateral thinking ability. In these tests candidates will be tested on their ability to identify relationships, patterns and trends. A series of images that follow a logical sequence or underlying rules that may include following a rule in a sequence, code or finding missing diagram. The forth type is Diagrammatic Reasoning—these are tests that assess the ability of abstract reasoning by showing a flowchart of diagrams and symbols with an input and output, for candidates to identify which inputs effect diagrams to generate a specific output based on those rules. Finally, Critical thinking—it tests verbal critical reasoning task which assess various different types of logical reasoning in arguments, assumptions and conclusions. Typically the logical abilities tested in critical thinking include analysing arguments, making inferences and evaluating conclusions. (Ones, Anderson, Viswesvaran, & Sinagil, 2018)

3.1.5. Mechanical Tests

In this concept of testing, mechanical reasoning tests measure your knowledge of mechanical and physical concept. However, they do not measure ones underlying mechanical aptitude in the same way that abstract reasoning questions measure ones underlying intellectual ability. This is the point of departure in constructing mechanical test question for recruitment. In furtherance to this, we note that in mechanical tests, fault diagnosis questions are applicable while selecting personnel for technical roles where they need to find and repair faults in say electronic control systems. This is so mainly because the questions in fault diagnosis tests appear rather abstract and require pure logic to solve. Faults that develop in electronically controlled system often with no physical clue as to the cause obviously burnt out component in a car for example can only be diagnosed by a process of logical elimination. A motor industry is bound to design mechanical tests sifts that can lead to identification of a proper person with such relevant skills.

3.1.6. Achievement Test

An achievement test is a test of developed skill or knowledge. The most common type of achievement test is a standardized test developed to measure skills and knowledge learned in a given grade level, usually through planned instruction such as training or classroom instruction. This type of test is very suitable in the process of recruiting teachers who have specialized in subject areas. However they can be used to assess skills when people are trying to learn a new sport.

If one was to learn a dance, martial arts or some other specialized athletic skill an achievement test can be important for determining ones current level of ability and possible need for trainings. It is worth to note that achievements tests are not used to determine what you are capable of. They are designed to evaluate what you know and your level of skill at the given time and moment. Simple

example of achievement tests may be reflected as under:

- A mathematics exam covering the latest character in a book
- A test in ability or social psychology class
- A final exam in a degree programme
- A skills demonstration in your martial arts class e.g. tyqundo

Comparatively, achievement tests differ in important ways from aptitude test. Whereas an aptitude test is designed to determine ones potential for success in a certain area, for example to determine for a student which type of career they might be suited for an achievement test, on the other hand, would be designed to determine what student already knows about a specific subjects.

3.1.7. Job Knowledge Test

Job knowledge test by definition means a test that is an assessment used to judge an individual's knowledge about the various aspects of a specific job. It will assess the person's factual knowledge about the role as well as his or her procedural knowledge. In contrast, aptitude test assess an individual actual skills, and abilities as job knowledge tests are designed to confirm the individuals' technical knowledge or professional expertise. The test assesses the individual's current state of knowledge about the subject matter of the test. But the test is not intended to predict the individual's aptitude in applying that knowledge on his/her personality traits. The concept of job knowledge test can best be understood in a workplace scenario. Since most job knowledge tests are job or role-specific, for one to pass a job knowledge test an individual requires to have knowledge that is specific to the job.

A job knowledge test will usually ask questions related to each and every task for a specific job e.g. mechanic, nurse, laboratory technologist etc. In addition to that, the test subject will often need to demonstrate competence in the general job field. For example an electrician or a mechanic would be expected to demonstrate a full understanding of the safety procedures related to his or her job in addition to the specific skills for their roles as electricians or mechanics. Similarly a Human Resource manager might be asked questions related to employment (labour) laws as well as internal company policies of that organization. Employers use job knowledge tests to confirm an individual's fitness for the job in order to rank several applicants based on their performance on a uniform job knowledge and to test for desired role and crediting or certification purposes. Similarly in some instances, mastery tests are required by government agencies or self-governing trade for organizations like engineers, doctors, Human Resource professionals, accountants in order for an individual to be licensed to perform certain jobs.

3.1.8. Work Sample Tests

These tests are based on the premise that the best predictor of future behaviour is actually observed behaviour under similar situation/condition (Robertson & Downs, 1989). These tests focus on the tasks that are similar to those that the em-

employee is expected to perform on the job when hired. Work sample tests like any other type of tests have pros and cons. The main advantage would reflect as follows; low adverse impact, high reliability, high content validity since they are samples of the actual work to be performed on the job and for this reason, this type of test is typically viewed as none favourable by examiners than aptitude or personality tests. It also makes it difficult for applicants or job seekers to fake job proficiency and thus helps to promote the relationship between score on the test and performance on the job. In short, it promotes direct correlation between the candidates' ability and performance. Work sample tests therefore are tools that are the same or substantially similar to the actual equipment used on the job.

However, major disadvantages of using work sample test to identify employees could also be pointed out as follows: first, the cost factor, its costly to administer to one applicant at a time. Secondly, the tests have less ability to predict performance on jobs where tasks may take a long period of time to complete as opposed to shorter periods of time. The third disadvantage is that the test is less able to measure aptitude of an applicant thus restricting the test to measure ones ability to perform the work sample and not more difficult tasks that may be encountered on the job, criterion related validity notwithstanding.

3.1.9. Example of Work Sample Tests

There are about four different work sample tests that the employer can administer on applicants seeking for jobs namely; work sample test of trainability. These are suitable for untrained applicants with no previous experience. Secondly the simulation of an event, these are work sample tests that present the candidate with a picture of an incident along with quotation from those involved. Candidates then respond to a series of questions which they sort down in terms of decisions they intend to make. It's important to note here that such tests are scored by subject experts to ensure accuracy in identifying the right candidate for the job, generally referred to as simulation of an event. The third sample test type is the low fidelity simulations, they present applicants with descriptions of work situation and five or so alternative responses for each situation. The applicants rate their responses on most likely and least likely basis in each situation. The fourth example is work sample where applicants are made to perform observable job-related behaviour as predictors of criterion performance. However, this type of sample test has since been dropped from consideration on account of test security issues (Roth et al., 2008).

3.1.10. Validating Work Sample Tests

According to (Roth, Bobko, & McFarland, 2005); there are two major approaches applicable in this area namely:

- 1) Content validity: it compares the tasks and duties performed on the job
- 2) Criterion Validity: focuses on two dimensions of the applicant; supervisory ratings of the incumbents job performance and production measures such as quality or quantity of work

3.2. Personality Test

This is a method of assessing human personality constructs. Most personality assessment instruments are in fact introspective self-report questionnaire measure or reports from life records such as rating scales. Personality tests are taken by self to gauge or rate ones strengths and possible weaknesses. It measures what psychologists refer to as the big five personality traits in individuals. They are the most scientifically validated psychological model to measure personality since they are fast and reliable. [Tony Alessandra and Michael O'Connor \(2014\)](#) acknowledge that the Golden Rule, “Do unto others as you would have them do unto you” has done much good in the world. He lays out a Myers-Briggs-like model of personality that is customized for the workplace and goes ahead to state that the social world is segmented into four types of people. “Directors” are firm and forceful, confident and competitive, decisive and determined risk-takers. “Socializers” are outgoing, optimistic, enthusiastic people who like to be at the center of things. “Relaters” are genial team players who like stability more than risk, and who care greatly about relationships with others. “Thinkers” are self-controlled and cautious, preferring analysis over emotion. Directors and Thinkers focus on work tasks, in contrast to Relaters and Socializers, who focus on people. Some of the recommended tests on personality are: career aptitude tests, competency test and work values test. For decades, the relationship between personality psychology and social psychology has been defined by its contrasts: sometimes highly overlapping and intertwined, at other times conflicting and even competing. This contradiction has been ultimately counterproductive, as it has precluded the understanding of people as both individuals and social beings ([Deaux & Synder, 2019](#)). [Table 1](#) below can illustrate how one would construct questions and responses for self-personality assessment. [Table 2](#) gives a summary of suitability ranges of selection tests ([Thomson & Paul, 2020](#)).

Table 1. Sample personality rating structure.

Sample Question/Statement	Rating Scale			
	Strongly Disagree (..)	Disagree (.)	Agree (+)	Neutral (++)
I make friends easily			+	
I trust others		.		++
I often feel sad			+	
I love to help others			+	
I work hard			+	
I enjoy reading books			+	
I panic easily	..		+	
I sympathize with the sick			+	
When I do things I do them well			+	
I try to be in charge			+	

Table 2. Summary of suitability ranges of selection tests.

No	Test type	Suitability
1.	Psychomotor tests	Ability to perceive instructions
2.	Attitude tests	Ability to quantify theories, beliefs and behaviours to inform discussions
3.	Vocational Aptitude tests	Ability needed for a particular job
4.	Logical Aptitude tests	To determine a candidates ability in problem solving
5.	Mechanical tests	To measure the candidate's knowledge of mechanical and physical aptitude to identify ones underling intellectual ability
6.	Achievement tests	To assess the level of a candidates developed skill and knowledge acquired in any grade or level e.g. academic or professional
7.	Job Knowledge tests	To assess a candidate's individual knowledge about various aspects of a specific job-job fit
8.	Work Sample tests	Focuses on the tasks that are similar to those the employee is expected to perform when hired by the employer
9.	Personality tests	To assess human personality constructs, to gauge or rate a candidates SWOT analysis
10.	Objective tests	To assess the candidates ability to recall facts and figures and their comprehension
11.	Projective tests	To uncover in a candidate the hidden conflicts or emotions for purposes of future psychotherapy
12.	Situation tests	To assess a candidates inventory of knowledge for effective performance on the job

3.2.1. Objective Test

An objective test by simple definition is a test that has right or wrong answer and so can be marked objectively. Objective tests require a user to choose or provide a response to a question whose correct answer is predetermined. They further assist the learner ability to recall facts and figures as well as their comprehension of course materials, by presenting a number of factual questions to be answered by one word or a checkmark instead of verbal expression and organization of material, this is according to (Merriam Webster Dictionary). Objective tests also have the characteristic of assessment procedures where the various test items can be marked with total reliability by anybody. Self-objective tests measures also maximize objectivity in responses in the sense that response options are structured such that examiners have only limited set of options (e.g. in Likert Scale responses: TRUE or FALSE, YES or NO, the later often applicable in responding to referenda questions. It is also worth to note that objective questions tend to be better at testing "low order". Thinking skills such as memory, basic comprehension and application, fill-in blank questions and short essay questions. Objective type questions have the following advantages: standardized marking of questions, computer aided assessment platforms e.g. Numbers, Maple TA and STACK that can host both numeral symbolic and graphical questions. It can reduce the marking workload, particularly on courses with large student cohorts like KCPE, KCSE and some university exams. Finally, the objective questions al-

low teachers to quickly assess a broad range of topics and provides immediate and direct feedback to both the students and staff in a school. It is also necessary to note here that in order to achieve reliability, validity, fairness and inclusivity through objective test assessment, overall weighting should not be high in the beginning. The questions should be submitted to widespread review by peers particularly, teachers responsible for both courses to be examined. It has been noted through several studies that objective tests may favour some candidates over others especially in STEM disciplines. This calls for periodical statistical analysis of exam results in order to identify potential biases in the examinations.

3.2.2. Projective Tests

This is a type of personality test in which one would offer responses to ambiguous scenes, words or images. The aim of such tests is to uncover the hidden conflicts or emotions that you project onto the test with the hope that these issues can then be addressed through psychotherapy or other appropriate treatment. For example, a cheeky child can decide to fake sickness and behave abnormally by throwing tantrums to members of the family every day he is woken up to go to school. The child can collapse, shout, and gnash teeth to uncover his hidden dislike of a particular school for fear of some teacher, subject or school rules. Once the specialist psychotherapist discovers this hidden emotion and puts a suggestion of change of school, the child suddenly recovers out of their behaviour back to normal. The process is referred to as interpreting responses to ambiguous cues by a psychologist with a hope to uncover unconscious feelings that might be causing problems in a person's life. Sampson, E.E. (1980) evaluates four main types of projective tests commonly used by psychiatrists/psychologists namely:

- 1) The Rorschach inkblot test: it was developed by Swiss psychiatrist known as Rorschach (1921). It is one of the first of such type of projective test and one of the best known and most widely used. It consists of 10 different cards that depict ambiguous inkblots. Each card is flashed to a person being tested and responses are recorded verbatim by the tester. Gesture, the tone of voice and other reactions from the observer of the cards are duly noted and analysed.

- 2) The second type is the Thematic Appreciation Test (TAT). In this TAT test one is asked to look at a series of ambiguous scenes and then tell a story describing the scenes on happening behaviour of characters feelings and the how the story ends. The outcome are put in scores of the test based on the needs, motivations and anxieties of the main characters and final end of the story.

- 3) Third type is the Draw-A-Person test. The interpretations from this type of projective test is subjective and lacks validity since the test projection has very low correlation.

- 4) The fourth type is the House-Tree-Person Test. Here she is asked to draw a house, a tree and a person as opposed to Draw-A-Person type where only the drawing of person is required. A series of questions are then asked about the

House, Tree and The Person drawn (Propounded by John Buck). Projective tests are mostly used in Therapeutic settings to enable therapists to learn qualitative information about the persons, mainly as ice breaker to encourage you to discuss issues or examine your thoughts and emotions. Major weaknesses with projective tests include, influence of attitude, subjective scores and lack of standards and hence no reliability from responses.

3.2.3. Situation Test

According to Wikipedia, Situational Stress Tests are defined as psychological test which present the test-taker with realistic hypothetical scenarios and ask the individual to identify the most appropriate responses in order they feel is most effective. This is a kind of inventories type approach of situations. An outstanding organization that conducts situation test is the one known as National Institute of Fashion Technology (NIFT). It conducts situational tests to examine the candidates' skills for material handling and innovative ability on a given situation with a given set of materials. This test type can be administered on students intending to study psychology, medicine, management among others. Situational Judgement Tests (SJT) is designed to determine behavioural tendencies assessing how an individual will behave in a certain situation and knowledge reaction which evaluates the effectiveness of possible responses for example, driving tests and pilot tests. Situational Judgement Tests could also reinforce the status quo with an organization e.g. airlines.

Situational Tests are developed by conducting a job analysis through collecting critical incidents. The critical incidents are then subjected to different situations where the judgement of the prospective new hire would be expected to make a decision. The cohort of these critical situations are then developed and subject matter experts analyze and suggest which ones can lead to effective and less effective solutions to the situation. The outcome at this level is further subjected to a different cadre of experts for rating of these responses from BEST-WORST with scores and ranked accordingly. The validity of the test results are equated to the various domains in human beings: knowledge, internship, performance and interpersonal behaviour. The problems associated with SJTs are mainly on the following parameters-expert-novice. Different expert judgement and consensual scoring where a score is allocated to each option according to the percentage of people choosing that option. But more importantly, SJTs prepares a candidate on possible course of action one need to take in sudden emergency situations in a ranking order from most desirable to least desirable. Take a hypothetical situation where suddenly in a production unit in a factory, operators report to a supervisor that one machine in the work place is malfunctioning and may endanger the welfare of workers. Possible courses of action in ranking order could be as follows:

- 1) Shut off the machine immediately
- 2) Evacuate the workforce team from the production facility
- 3) Individuals ask other production operators about problems with the ma-

chines

- 4) Report to the director of safety
- 5) Call a meeting of the team members to discuss the problem

Take note that the response order of ranking to the above five possible parameters will differ from person to person depending on how one rates the level of seriousness in line with ones ability in decision making process in that situation.

3.2.4. Merits of Situational Judgement Test in Selection of Employees

It has been noted that Situational Judgement Tests (SJT) have wide spread advantages over other forms of measures. The basic ones are reduced levels of adverse impact by gender and ethnicity compared to say cognitive ability tests, the measures used directly assess job relevant behaviours, bulk administration of testing either via pen (writing) on paper or on line. The results from SJT design process reflect higher content than other psychometric assessments and therefore more acceptable and engaging to candidates as compared to Cognitive Ability Tests since they are based on scenarios on real incidents. The fifth advantage of this type of test is the unlikely hood that practice will enhance candidates' performance as the answers cannot be arrived at logically because a response to a situation may be appropriate in one organization and not in another. The other advantages will include, tapping into variety of constructs, ranging from problem solving and decision making to interpersonal skills. It is also noted that traditional psychometric tests do not account for the interaction between ability, personality and other traits. Last but not least SJT can build consciousness as a test factor of individual differences and finally SJT tests scan be used in combination with acknowledge-based test to give a better overall picture of a candidate's aptitude for a certain particular job.

However, given critical analysis on the overall, this type of testing has shown to cause gender and socio-economic bias.

The scenarios in most SJTs tend to be brief, and thus reducing the candidates' engagement in the scenarios and hence removing some of the intended realism of the scenario in terms of quality and depth of assessment. SJTs also have the potential of reducing full enough range of responses from candidates and therefore failing to differentiate between candidates' work place performance, by forcing the candidates (some) to select action responses that do not necessarily fit their behaviour and so affects the validity of such measures—Job knowledge. Because the SJTs are suitable for adaptability measures and are therefore best suited for assessing multiple constructs and as such it is difficult to separate the constructs such as cognitive skills. Conscientiousness, agreeableness or emotional ability of the candidate. By using SJTs and due to their multidimensional nature, it is problematic to assess reliability through the use of standard measures. Finally this testing approach, though possibly able to reduce certain kinds of visual bias, it may reinforce others by building monolithic work and cultural values, socio-economic advantage, as well as those with social links to the organization.

3.2.5. Purpose of Selection Process

The main purpose of selection process is to identify and pick up the most suitable person for the job in terms of meeting the requirements of the job for an organization best success. To achieve this objective the organization obtains and assesses information about the applicants in terms of age, qualification, skills and experience. Constitutional requirements on how—discrimination not—withstanding particularly if the hiring process is for national or county government officers (Anderson, Salgado, & Hulsheger, 2010). The needs of the job however, whether public or private must match with the candidates profile. Through successive stages of selection process the best suitable is picked up after eliminating unsuitable applicants—applicants-shortlisting—interviews—best fit (qualified)—appointment—acceptance (by the candidate)—placement/deployment.

3.2.6. Employee Selection Cycle

The Human Resource manager in-charge of employment directs the organizations recruitment, screening, interviews and selection and placement activities. They manage employment functions and staff members, extend job offers and establish starting salaries, arrange advertising or employment agencies services and produce affirmative action or college recruiting programmes. The above scenario is summarised in the steps below.

3.2.7. Recruitment and Selection Stages

Stage 1: Job analysis: management convenes and makes job analysis for all the positions to be filled

Stage 2: Recruitment: this could be done internally or externally. Internal process gives the existing employees an opportunity for upward mobility for motivation. To promote effective performance while external process is one and competitive for all who have the necessary qualifications

Stage 3: Application forms: these are received to ascertain /get personal details of applicants

Stage 4: written tests (Examination): to determine each applicants, aptitude, reasoning several knowledge and experience

Stage 5: Preliminary interview: to determine physical appearance, experience and salary expected

Stage 6: Group discussion: HR team sits to discuss the candidates, communication skills and personal initiatives

Stage 7: Testing: to determine the level of mentality, hobbies that may boost the candidates suitability level for the job.

Stage 8: Final interview, reference checks: these are the last stages before employment is awarded to the candidates. It's important to note that at every stage if the candidates 'fit' does not match, he/she may be REJECTED as unsuitable for the job, based on the overall scores in tabular form illustrated below and a sample of how scoring is done is captured on **Table 3**.

Table 3. Recruitment and selection score sheet (sample).

No	Name of candidate	Parameters to be Tested (scores ranges from 1 - 10)					Total
	Qualification	Interest	Intelligence	Personality	Trait	Achievement	
1.	Peter (Diploma)	4	5	3	6	5	23/50
2.	John (Diploma)	6	7	5	7	4	29/50
3.	Pauline (Graduate)	5	6	7	9	5	32/50
4.	Ednar (Graduate)	7	8	6	8	7	36/50
5.	Charles Graduate)	8	4	7	6	7	32/50

General remarks: ____; Panel members: 1) Name Sign: ____; Date: ____; 2) Name: ____; Sign: ____; Date: ____; 3) Name: ____; Sign: ____; Date: ____.

3.3. Conclusion and Reflections

Further to the flipside of tests for placement could as well be argued from the following perspectives; tests suffer from the following disadvantages; unreliability, wrong use and of exposure. Objectively speaking the inferences drawn from tests may not be correct in certain cases. The skill and ability of the candidate may not be fairly judged through tests because tests may not be properly used by the employers. Interviewers may be biased towards certain individuals by falsifying the results of tests either deliberately or without knowing. Since tests are also able to provide unreliable outcomes' particularly if conducted by incompetent persons (interviewers), some people may choose not to appear for selection tests for fear of exposure despite the fact that they may be competent, therefore depriving the organization of a good employee thus compromising on service delivery (Saikind, 2007).

The scenarios discussed above, employers seem to use the following common tests for selection purposes namely; stay calm, research, clarification and figuring out the details first before the action process of selection is started. These include; Talent Q element, Logical ability, Kenexa, Logical reasoning and Ravens Progressive Matrices, other general logical reasoning test devices and most employers use the above as a control measure. Finally it's safe to summarize that logical reasoning is a broad category of skills as reflected widely as variety of tests on the market used by potential employers to assess the abilities of employees (Schmit & Ryan, 1992). It is worth to note that if an employer subjects you to taking a logical reasoning test, it means that one is being considered a potential employee for that organization. Therefore it should be considered as a compliment and a confidence booster in terms of experiences and recruitment procedures which will translate into future job applications. Commonly used selection tests are those that focus on the Aptitude, Attitude, Skills and Knowledge as possible employability traits in candidates (Salkind & Rasmussen, 2007).

4. Recommendations

1) Kenexa Matrix Test is best for employers in terms of weighting for all the test types. It places logical reasoning as best fit since it's broad in terms of skills

and knowledge identification of potential candidates in both Aptitude and Attitude diagnosis process.

2) Achievement and Job Knowledge types seems to provide a general sequence of sourcing for employees as they comply with behavioural patterns in persons, as propounded by an American Psychologist on emotions of normal people as outlined by the concept of DISC. This is a powerful tool to understand people and predict behaviour. DISC is an acronym to represent Dominance (D), Inducement (I), Submission (S) and Compliance (C). This concept discusses links between Emotions, Motivation, Personality, Learning and Recall.

3) From the above table, the test methods that need to be used by employers for effective identification of job-fit employees are; psychomotor (instructional), Attitude tests (Discussions), Aptitude tests (Problem Solving), Achievement Tests (Level of skill and knowledge), Job Knowledge Tests (Job-Fit), in that order. Test questions should be structured to reflect in those test types as much as possible. However, the grey area is the use of tests for selection that researchers need to find more about is whether this approach is the panacea for identifying Human Resource Personnel given the shortcomings discussed above, since in practical terms selection tests produce less capable workforce in some instances and they remain in service on account of labour laws protection.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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