

THE USE OF PSYCHOLOGICAL TESTS

A GUIDE FOR MANAGEMENT

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Wat moet deur Bestuur gedoen word om te verseker dat die regte man vir die regte pos gekies word?

Behoort mens uitsluitlik staat te maak op sielkundige toetse of behoort keuringsonderhoude gebruik te word om vas te stel watter applikant die vakature moet vul?

In hierdie artikel word verskillende beskikbare toetse bespreek en word daarop gewys dat onderhoude en sielkundige toetse as aanvullend tot mekaar beskou moet word.

The field of psychological testing is a complex and controversial one which is little known and understood by the general public. Executives are also often at a loss about how to value the advice given by so-called experts in psychological testing. The present short article is an attempt to offer a few guidelines to management about the possible help that psychological tests may provide.

In the first place, it should be noted that it is impossible to tell whether a certain psychological test works in a particular situation unless an objective research study has been carried out. When the many studies into this question are carefully examined, it can be seen that for the most part psychological tests **do** work. By this industrial psychologists simply mean that the use of psychological tests usually results in some significant degree of improvement over other methods. In this respect, psychological tests are evaluated, not in terms of whether they achieve perfection, but instead whether the ratio of successes to failures in personnel selection is better after using the tests than it was before.

For instance, if the labour turnover in a given department has been 25% per year among employees placed by previous methods, if it is found that new employees placed by psychological tests consistently show a turnover of only 20% per year, and if the expense of administering the testing programme is less than the amount saved by the reduction in labour

turnover, then the testing programme would be considered a sound investment — even though it did not achieve perfection in reducing labour turnover to zero.

When psychological tests are examined in this light it can definitely be said that they work. However, not all tests or procedures are equally effective.

Background Questionnaires:

The greatest success industrial psychologists have had so far is with the personal background questionnaire or, the weighted application blank in which the applicant is asked about his hobbies, school performance, previous jobs, attitudes towards past experiences, etc. However, instead of answering in his own words (as he would in an interview), the applicant checks one of several alternative answers in the questionnaire. There is a growing body of evidence that questionnaires of this nature, if they are developed and analysed in accordance with standard research procedures, can result in the selection of better employees and reduce labour turnover.

In the development of a weighted application blank, the industrial psychologist first determines the extent, if any, of the relationships between responses to the items in the questionnaire (or blank) and some criterion of the employee's success on the job. Items which are shown to be related to the criterion (or criteria), such as industrial productivity for supervisors' ratings, are then weighted to reflect the extent of this relationship and the total questionnaire (or blank) is 'scored' by summing the weights of responses to the items.

It should be stressed that in the development of such weighted application blanks only those questions are retained which have been **proved** to be related to the job success. For instance, a

question regarding number of children would only be included if, say, applicants with many children perform much better than applicants with few children (or vice versa). If there is no difference between the performance of applicants with few or many children, this item would be dropped.

It is not possible to structure a weighted application blank that will be usable for all jobs in a given organization or even for similar jobs in different organizations. Every selection programme presents an unique set of problems with respect to the phrasing of items to be included in the blank and the weighting of responses to these items. However, when weighted application blanks are specially tailored to meet the needs of a specific set of jobs in a given firm, the results are impressive. For instance, by using this technique, industrial psychologists of the Life Assurance Agency Management Association in the United States have shown that 40% of their applicants for insurance sales positions who fall in the top quarter of the questionnaire are successful; whereas only 11% of those in the bottom quarter meet the same standards. Similar positive results with the weighted application blank have been reported for a wide range of positions, including industrial salesmen, production workers, office clerks, chemists and engineers, and high-level executives.

Intelligence Tests:

The results from using intelligence tests to predict later job performance are rather mixed. Probably the major reason for this lies in the fact that, in present-day society, intelligence and educational achievement are inextricably intermixed; with the result that most unsuitable candidates, in terms of the required intelligence level, have been eliminated from consideration before they present themselves for selection.

For instance, most of those applicants for an accountant's position who are intellectually unsuitable have already been weeded out because of their inability to cope with the complex material presented to them at University. As a result, for positions like this, the applications are usually intellectually suitable, with only a small range between the level of intelligence of the

brightest and dullest applicant. This means that among those applicants, success depends more on **other** qualities, like perserverance and conscientiousness, rather than the relatively small differences in intelligence that exist among them. Hence, in jobs requiring a large amount of pre-training (accountancy, engineering, medicine, law etc.) intelligence tests are not a useful selection instrument.

On the other hand, whenever a wide variety of applicants are tested for a position for which they have had little pre-training (but which requires a minimum level of intelligence) intelligence tests are not only useful but virtually indispensable. This is because they enable the industrial psychologist to eliminate those applicants whose intelligence level is definitely too low (and sometimes too high) for the particular position. In short, it is in the elimination of unsuitable candidates rather than in the prediction of later success that intelligence tests are most useful.

Personality Tests:

A rather dismal history of failure has been recorded for personality tests in personnel selection. While there have been a few isolated successes with some modern techniques, on the whole the typical personality inventory has not been able to predict later job success or failure. This is a great pity for it appears that for many types of jobs, especially those at the managerial level, personal characteristics are more important for success than skill or job knowledge.

Probably the major reason why personality tests have not proved very successful is that in the usual assessment situation the 'right' answer for the particular job is often obvious to the applicants. As a result most applicants do not answer truthfully, but rather give those answers which they feel will result in them being favourably evaluated by the company. However, in view of the complexities of human nature, even if applicants were to answer truthfully, it is by no means certain that test responses would be predictive of later success. In view of the importance of personality factors in job success, industrial psychologists have not 'given up', but have continued to devise more intricate and more

sophisticated personality inventories. Management must wait for the results of this research before hastily introducing personality tests into their selection procedures.

In their attempts to obtain measures of personality which are not too easy to falsify and to tap areas of personality not covered by the typical personality inventory, industrial psychologists have made some use of the so-called projective tests of the clinicians. In those projective tests the applicant is faced with a relatively instructed or ambiguous set of stimuli. He is then encouraged to respond freely, telling whatever he sees in the ink-blot or making up a story about the picture. Responses to such blots or pictures are then analysed by a highly-trained psychologist, working under the assumption that the differences in what people say under these circumstances reflect differences in personality.

The best known of these tests, the Rorschach Inkblot test, has been studied the most thoroughly and has accumulated such a long history of failure that until someone develops and verifies a new approach to analysing it, it is a waste of time for selection purposes. While other projective tests have fared somewhat better, it is the present writer's opinion that projective tests, along with personality inventories, have not reached a sufficiently advanced stage of development to justify their inclusion in selection batteries.

Aptitude Tests:

In addition to general tests of mental potential (intelligence tests) industrial psychologists have devised special aptitude tests, which measure an individual's capacity to perform fairly specific tasks that are similar to those he will have to perform in the jobs for which he is being tested. For instance, an applicant might have to perform certain standardized visual or motor tasks involving a high degree of muscular co-ordination. Such specific aptitude tests have been found to be very useful in the prediction of later performance in certain technical positions, especially when the applicants have had little industrial training.

In order to be useful, however, the aptitude tests have to be custom made to fit the requirements of a particular job. They should also be validated against criteria of subsequent performance. If the test is found to relate highly

to later performance, it should be retained; if not, it should be excluded. The big drawback is that so many jobs, especially at the managerial level, do not lend themselves to standardized aptitude tests. Success in such jobs requires abilities and qualities that can not easily be measured by objective tests. Nevertheless, provided only validated and custom-built aptitude tests are used, their inclusion in a selection pattern for certain low-level technical positions, is likely to increase its predicting power quite considerably.

Selection Interviews:

It should be stressed that psychological tests of any kind should be used to supplement the selection interview, in which the interviewer meets the applicant in a face-to-face relationship. On the other hand, while the interview, if properly conducted, may be justified as a selection device when **certain** aspects of an individual are being assessed (physical appearance, personal mannerisms, certain social traits), it should never be considered a substitute for psychological tests when the applicant's background, aptitudes, intelligence, and job knowledge, are being assessed. These latter factors, which are of demonstrated importance for most jobs, can be much better assessed by objective psychological tests than the unreliable and subjective selection interview.

In short, the interview should only be used to assess certain limited aspects of an individual; it ought not to be the sole way of judging his overall suitability for a certain position. Psychological tests give a vital break to an individual who may otherwise not make a good impression in an interview. For instance, those applicants who are not particularly attractive, who lack social sparkle or who find it difficult to 'warm up' quickly in an interview, but who are very well suited for the particular job, would be missed if psychological tests were not used.

Provided too much is not expected of psychological tests, the 'correct' tests are chosen or devised with the aid of an industrial psychologist, and they are used to supplement the results of a well-conducted interview, then they can be of great benefit to management in the difficult task of selecting the right person for the right job.