

Criteria to Select a Physical Capability Evaluation Vendor

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The purpose of this document is not to evaluate the pros and con's of various forms of physical capability evaluations, but rather to provide selection criteria used to select a vendor that is best for your company.

Physical capability evaluations (PCE) are not new to industry. Many companies have been using some form of PCE's for at least 20 years. In the late 70's and early 80's, the primary form of PCE was performed against NIOSH standards and involved isometric testing. An isometric test is a static test in that an individual pulls a cable that does not move and the force generated is measured by a strength gage. Another form of PCE involves being tested on an isokinetic machine. This is a dynamic evaluation in which an individual is tested in specific movement patterns. The isokinetic machine accommodates an individual's weaknesses and strengths by providing resistance equal to the force applied against the machine. Another form of PCE is the functional capacity evaluation (FCE), which is sometimes referred to as work simulation evaluation or work tolerance test. The FCE generally involves lifting and carrying certain weighted items in a box to simulate the physical demands of the job. It may also involve a cardiovascular evaluation or other movement patterns. There are machines on the market that use a combination of isometric and FCE types of tests such as the Hanoun and Ergos machines.

The purpose of this document is not to evaluate the pro's and con's of these various forms of performing a PCE but rather to provide selection criteria used to select a vendor that is best for your company. Because there are many options available to industry today, a company should apply critical selection criteria to make sure the company's best interests are protected and that the company receives the greatest return-on-investment.

Assessing the physical capability skills of a worker, to determine if the worker meets the physical demands of the job, is becoming more prevalent in industry particularly in physically demanding jobs. Correctly matching the physical capability of the worker to the physical demands of the job should enhance productivity and efficiency of the worker and, thus, the company, as well as minimize on-the-job injuries. This is best accomplished with a correctly matched worker, which results in fewer turnovers and less fatigue during the workday. In contrast, a worker not correctly matched will fatigue, resign or attempt to do work for which he/she does not possess the physical skills. This results in injury, lost time and many other indirect cost factors that contribute to lost productivity and the inability to service the 'customer'.

Validated Process

Key Questions:

- *Does the vendor have a validated process?*
- *Is the validated process current (validated in the last 3 years)?*

The PCE vendor selected should be able to document its validation process. Validity is a process in which the PCE is evaluated to determine if it is doing what it has proposed to do.

There are several validation procedures that can be used to validate a process or technology. Construct validity uses a process in which a known condition exists and then a treatment is applied to determine if the known condition can be altered. If the known condition is altered, then the treatment is purported to do what it was designed to do; thus, it is validated. Criterion validity is based on a demonstrated relationship between a performance criterion (i.e., on the job injuries) and scored evaluations in the assessment process (i.e. the PCE evaluation).

Since the physical capability skill of strength is critical to performing the essential functions of the job, it is safe to assume that workers who possess the critical strength perform the job better and more safely. One way to assess this is to review the company's injury history (a criterion measure) as it relates to strength. The most common injury associated with strength is the overexertion injury. Most overexertion injuries occur because the worker lacks adequate strength to perform the essential functions. A company that uses a validated physical capability strength test should experience an increase in productivity and efficiency because of fewer overexertion injuries.

One aspect of the validation process for those vendors that use testing machines, like isokinetic and isometric machines, is validity of the testing machine. An isokinetic dynamometer used to determine the force generating capability of an individual should have many independent research studies demonstrating the validity and reliability of the dynamometer. Some vendors have opted to build their own dynamometer and have failed to demonstrate this very important and critical independent research. A dynamometer that can't be documented to be valid invalidates the physical capability evaluation test.

Case Studies and Publications

Key Questions:

- *Does the vendor conduct current research to document the effectiveness of its technology? What is the return-on-investment?*
- *Has the research been published in scientific, scholarly journals as opposed to a document prepared and printed internally within the vendor's company?*
 - *Ask to see the scientific publication!*

A PCE vendor should be able to document on an on-going basis (at least yearly) current case studies demonstrating the effectiveness of its technology. This is normally measured by comparing both the frequency and severity of injuries with the PCE vendor to historical injury data. The expectation is that the PCE vendor's evaluation will dramatically reduce the frequency and severity of injuries in comparison to the historical data. This should also demonstrate significant return-on-investment (ROI).

This comparison, if done correctly, should be able to be presented to and/or published in a scientific, scholarly journal. A scientific and scholarly journal is one that relies on a peer review of the research before it is accepted for publication and/or presentation. Some reviews will result in the rejection of the research because it did not meet certain scientific standards. Some vendors prepare case studies in-house without peer review and call their internal case studies "publications". Therefore, ask to see the scientific journal in which their publication appears.

Some PCE vendors today rely on research that is many years old and is not current. Current research is critical should any EEO challenge occur.

External Review

Key Questions:

- *Does the PCE vendor use an external source to review its validation process?*
- *Does the PCE vendor rely on an external source to review its PCE process in terms of complying with the various EEO guidelines?*
- *How current is the external review?*

A PCE vendor should do every PCE evaluation with the understanding that it could be in a court of law because of an EEO challenge. Relying on an external law firm that specializes in EEO issues on behalf of the employer is critical to defending against any EEO challenge that might occur.

The review process should be done on a regular basis, such as every two years. This way the PCE vendor can insure its clients that its technology is in compliance with the latest EEO guidelines and its technology can be defended as a validated process if challenged.

Job Task Analyses (JTA)

Key Questions:

- *How current is your Job Task Analysis (JTA)?*
- *Can your JTA withstand an EEO court challenge?*

Many JTA's were done in the early 1990's in preparation for the implementation of the Americans With Disability Act. The JTA is critical to an EEO court challenge because it represents the physical demands of the job; and, thus, the target score needed to be achieved by the individual tested to be considered for employment.

Even if the physical demands of the job have not changed, it is recommended that the JTA be reviewed every two years and that it be re-written to reflect the current review date. Further, to withstand an EEO court challenge, it is recommended that the JTA be done by an external source that has the expertise to defend the JTA in case of a challenge.

Data Mining Capability

Key Questions:

- *What is the recommendation rate versus the not recommendation rate for new hires?*
- *Does the PCE vendor have the capability to provide your company with tracking by a variety of demographic variables?*
- *How quickly can the PCE vendor respond to your data mining inquiries?*
- *What are the qualifications of the PCE vendor's personnel responsible for the data mining?*

A PCE's vendor data mining qualifications is critical and it is a must. Without the data mining capability, it is nearly impossible to respond to any EEO challenge, to document the effectiveness of the vendor's technology and to document the return-on-investment of the PCE.

Being able to respond to an EEO audit and/or challenge in a timely manner is critical. Building a database that allows for quick analysis to provide the company with information such as number of evaluations by gender or by age group as well as by location or job class is a must. Further, the database should allow for the appropriate statistical analysis to determine the effectiveness of the technology and a company's return-on-investment. In other words, is the technology working?

Turning data around in a timely manner is critical to your company's hiring process. Delays in processing the data means that your company can't hire people to get the job done.

The PCE vendor should be able to document its acceptance and rejection rates by job class. Some vendors have a 100% acceptance rate for physically demanding jobs, which defeats the purpose of the evaluation. Care must also be taken to insure the data does not show any disparate impact should a challenge occur.

Miscellaneous Topics

Key Questions:

- *What is your company's retest policy?*
- *What do you say to someone not recommended?*

Does your PCE vendor become a resource to your company by asking the right questions to insure your entire PCE process can stand up in a court of law?

Making sure a company has a consistent retest policy in place and a standardized policy in place as to what should be said to a person not recommended is critical should any challenge occur.