

Functional Capacity Evaluation Presentation

I. Definition

A. *A systematic method of measuring one's ability to perform meaningful tasks (activities of daily living) on a safe and dependable basis, with an emphasis on Safety. (Harper, 2010, Matheson, 2003)*

B. *A systematic, comprehensive, and objective measurement of an individual's maximum work abilities (Dabatos, Rondinelli, & Cook, 2000)*

C. *A systematic method of measuring one's ability to perform meaningful tasks that may include but are not limited to physical, physiological, and functional measures that are translated into performance potential for activities of daily living. (Roy, 2003)*

D. Deconstructing the term *Functional Capacity Evaluation*

1. Functional
2. Performance of a task that can be measured , meaningful, or useful goal with a beginning and end that has a result that can be measured. (Isernhagen, 2009; Jahn, Cupon, & Steinbaugh, 2004; Matheson, 2003).
3. Capacity
 - a) The maximum lifting ability or capability of the examinee (Isernhagan, 2009)
 - b) Maximum Allowable Effort
4. Evaluation
 - a) A systematic approach used by the evaluator to gather test data designed to measure one' functional abilities (Matheson, 2003)

c) **Outcome Data**

(1) *Reveal achieved functional levels in manual muscle strength tests, collateral ratings, work-sample testing, materials handling, gait analysis, and simulated essential job functions*

(2) *Outcome statement should include identified functional applications to activities of daily living (ADL) and to the essential functions of work in general or to a specific job.*

II. **Origins**

A. *American Medical Association*

1. American Medical Association introduced first process of systematic medical examinations in industry that led to the development of physical demands analysis and functional capacity assessment.
2. United States Civil Service Commission developed classification system of physically disabling conditions to be matched with compatible positions of employment within the federal government

B. *Leonard Matheson, Ph.D.*

C. *Susan Isernhagan, OTR*

D. *National Association of Disability Evaluating Professionals (NADEP)*

III. **FCE Utility**

A. *Overall Purpose and Application of FCE*

B. *Utility defined*

C. *Applications*

1. Address examinee's functional capacity within a particular occupational category or in the general competitive labor market
2. Determine examinee's competency for independent living with a focus on ADLs
3. Establish a functional baseline as well as therapeutic rehabilitation goals
4. Monitor progress in therapeutic rehabilitation programs
5. Identify examinee's propensity to magnify symptoms as well as determine the appropriate and inappropriate factors of one's overall non-physiological performance
6. Determine the examinee's current ability to return to the competitive labor market safely
7. Support the physician's assessment regarding maximum medical improvement as well as specific work-related functional restrictions
8. Matheson (2003); Maher (2006); Soer, Geertzen, Groothoff, Brouwer, Dijkstra, and Reneman (2009)

IV. FCE Validity and Reliability

A. *FCE predicated on the validity and reliability of the FCE multi-component tests used by the evaluator.*

B. *Validity – Refers to when the test measures the properties that it purports to measure and thus, can be used to make inferences regarding functional and worker trait factors (King, et al., 1998)*

1. Validity Types with Test Samples

C. *Reliability – Refers to the extent in which repeated measurements of a single test can produce similar results*

1. Reliability Types with Test Samples
2. Re-evaluations
3. Coefficient of Variation

V. FCE Predictability

A. *Research Studies*

1. *Cheng and Cheng (2010)*
2. *Cheng & Cheng (2011)*
3. *Gross, Battié, & Cassidy (2004)*
4. *Bross & Battié (2004)*
5. *Steibelt, Blume, Kartsen, Reneman, & Meuller-Fahrnow (2009)*

B. *FCE Normative Data*

1. *Soer, Gertzen, Groothoff, Brouwer, Dijkstra, & Reneman (2009)*

C. *FCE Influencers*

1. *Hawthorn Effect*
 - a) *Self Efficacy (Asante, Brintnell, and Gross (2007)*
 - b) *Kaplan, Wurtele, and Gillis (1996)*
 - c) *Cheng and Cheng (2010)*
 - d) *Matheson (2003)*
 - e) *De Jong, Vlaeyen, de Gelder, and Patijn (2011)*
2. *Rater Effect*
 - a) *American Chiropractic Association Study (Jahn, Cupon, & Steinbaugh, 2004)*

VI. *FCE Evaluators*

A. *Who's Qualified*

VII. *FCE Model*

A. *Standardized Components (6) - May and Martelli (1999)*

B. *Test Administration Techniques*

C. *Simulation of Job Essential Functions through Functional Mechanics Activity*

1. *WEST Lift Evaluation Videos*

a) *Lift Capacity Test*

b) *Controlled Lift Evaluation*

2. *Progressive Isoinertial Lifting Evaluation (PILE) Video*

3. *Work Sample Mechanics Application to Work Video*

D. *Case Study FCE report of all Components Review, with Examinee Actual Test Videos*

Participant Questions (only required for Webcast CEUs):

- 1. Who is qualified to perform functional Capacity Evaluations?**
- 2. What are the differences between the traditional vocational evaluation and the functional capacity evaluation?**
- 3. How does the functional capacity evaluation process address the examinee's ability to perform the essential functions of jobs?**
- 4. How is reliability established in test-application in the FCE?**
- 5. Does the FCE process have more than the role of identifying worker-trait profile adjustments for work, or the work-feasibility of the person with a disability?**
- 6. Is the FCE a valid predictor of a person's ability to successfully return to the competitive labor market?**