

# Work Capacity Evaluation: Concepts to Maximize Participation in Vocational Activities for Youth with Disabilities

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## Introduction

The intent of education, and especially special education, is to educate students for their future, which includes work for many students. The goal is Competitive Integrated Employment (National Technical Assistance Center on Transition, 2017). Stakeholders (i.e. school districts, local education agencies, teachers, educators, employment transition specialists, parents) supporting high school students in vocational/work awareness training, need to develop programs which build work capacity of their students by maximizing fitness levels, physical attributes, attention levels, and self-advocacy skills. This can best be accomplished by understanding the specific work requirements so that strategies can be developed to optimally prepare students for work. Using a strengths based approach, occupational and physical therapists need to understand the fitness, work capacity/ergonomics and task analysis concepts that inform Work Capacity Evaluation for youth with disabilities in schools.

## Work Capacity Definitions

### Who can benefit from Functional Capacity Evaluation?

- "Someone seeking vocational rehabilitation services" (AOTA, Functional Capacity Evaluation, 2012)
- "Students receiving transitional services from school to the work settings to determine their skills and the extent of support required to perform a job" (AOTA, Functional Capacity Evaluation, 2012)

### Competitive Integrated Employment (CIE)

- "Real work for real pay is the gold standard of transition outcomes for students with disabilities. The work should align with the post-school employment goals of the student and is the desired transition outcome for all students with disabilities who choose to work, regardless of disability or needed accommodations or support. CIE should be a realistic and desirable expectation for all students" (NACT, 2017)

### Functional Capacity Evaluation

- "Evaluates an individual's capacity to perform work activities related to his or her participation in employment. The FCE process compares the individuals' health status, and body functions and structures to the demands of the job and the work environment." (AOTA, 2012).
- "Comprehensive battery of performance-based tests that are commonly used to determine ability for work, ADL or leisure activities..." (APTA, 2011).

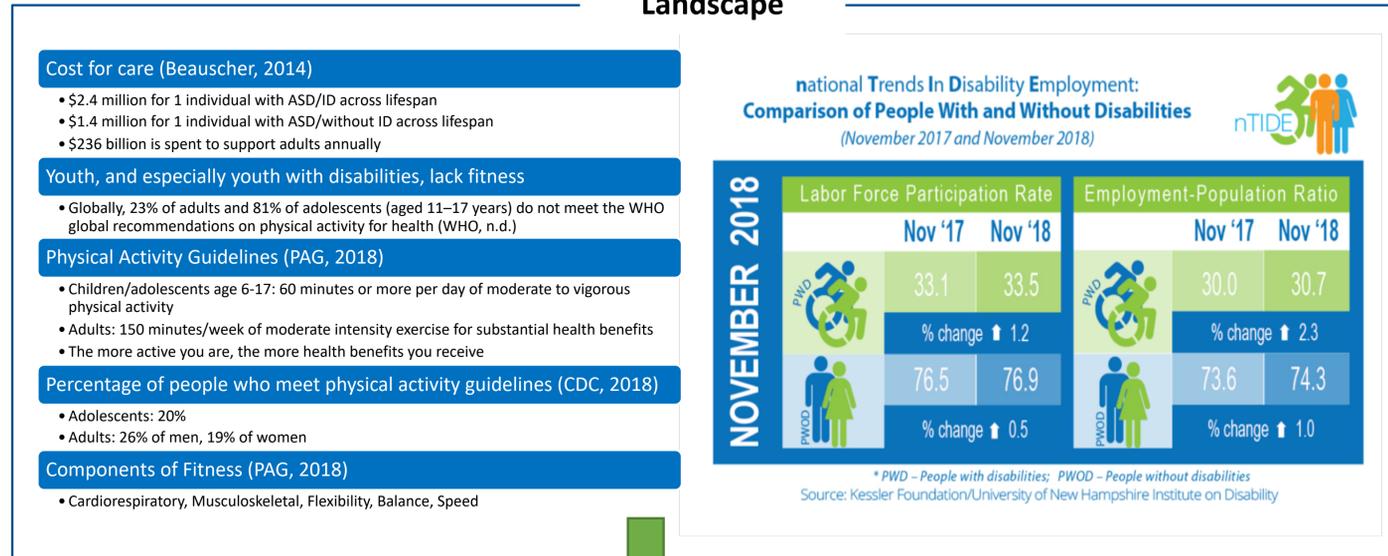
### How performed

- Task analysis of specific job tasks & documenting frequency of task occurrence & body position (back posture, arm reach, sitting, standing, walking, kneeling, crouching, crawling, lying). (Gagne, 2010).

### Work Hardening/Conditioning

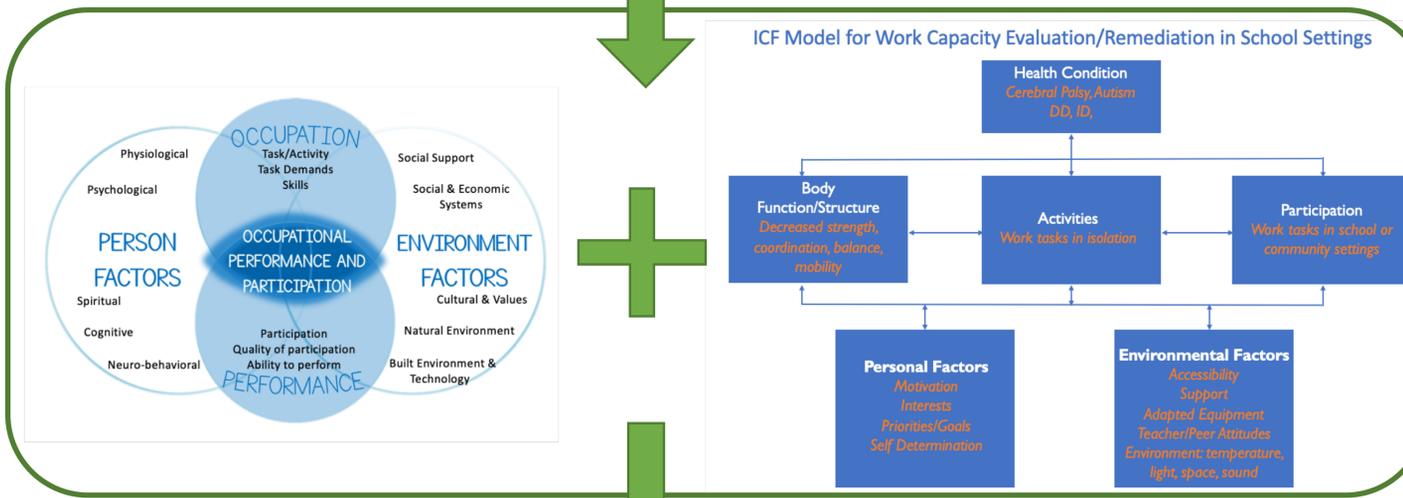
- "Encompasses many aspects of intervention, all geared toward facilitating participation in work and satisfactory fulfillment of the worker role." (AOTA, 2012)

## Landscape

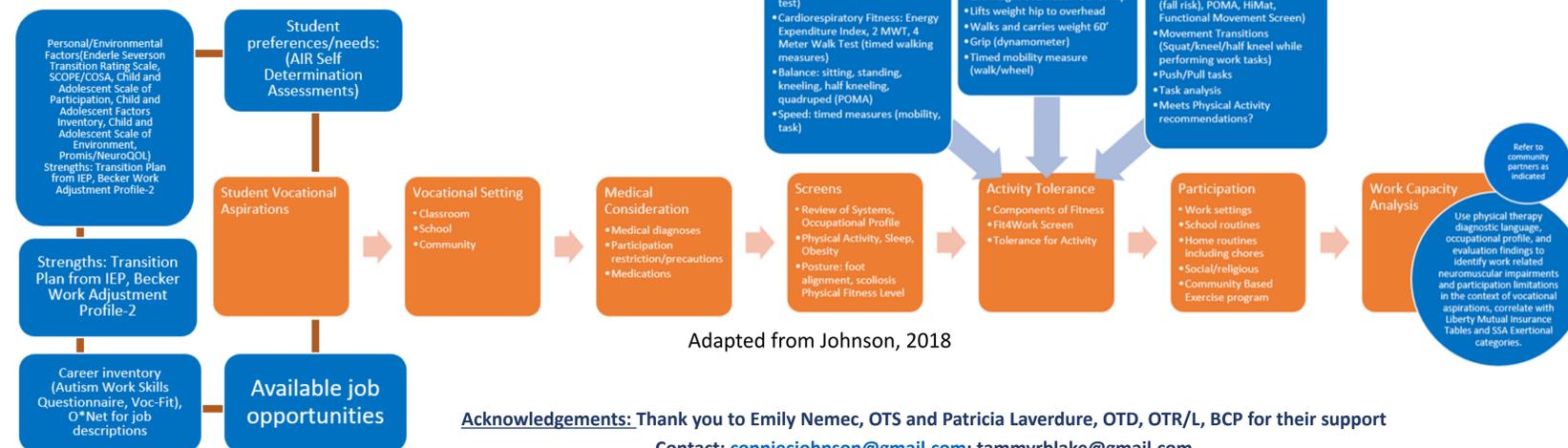


## Relationship Between Components of Physical Fitness and Work Tasks (PAG, 2018)

Component of Fitness	Definition	Requirements for Work Tasks
Cardiorespiratory fitness	Ability to perform large-muscle, whole-body exercise at moderate-to-vigorous intensities for extended periods of time	Lifting Pushing/pulling Climbing Walk for periods of time
Musculoskeletal fitness	Integrated function of muscle strength, muscle endurance, and muscle power to enable the performance of work	Lifting Carrying (1 and 2 handed) Working overhead
Flexibility	Range of motion available at a joint or group of joints	Bending: to floor, sideways Reaching, flexing, extending, and twisting overhead, at shoulder and waist height, and side grasp Rotation: holding item, visual scanning and orientation
Balance	Ability to maintain equilibrium while moving or while stationary	Squatting, kneeling, half kneeling, standing, walking, sitting
Speed	Ability to move the body quickly	Walking, pushing, reaching, rotation



## Fit4Work: Physical & Occupational Therapy Evaluation of Work Capacity in School Settings for Youth with Disabilities



## REFERENCES

American Occupational Therapy Association (AOTA). (2014). Occupational therapy practice framework: Domain and process (3rd ed.). *American Journal of Occupational Therapy*, 68(Suppl. 1), S1-S48. doi:10.5014.682006.

American Occupational Therapy Association (AOTA). (2012). Occupational Therapy's Role in Functional Capacity Evaluation. Retrieved from <https://www.aota.org/About-Occupational-Therapy/Professionals/WI/Capacity-Eval.aspx>.

American Physical Therapy Association (APTA). (2011). *Glossary of Workers' Compensation Terms*. Retrieved from <http://www.apta.org/Payment/WorkersCompensation/Glossary/>.

Baum, C.M. & Christiansen, C.H. (2005). Person-Environment-Occupation-Performance: An occupation-based framework for practice. In C.H. Christiansen, C.M. Baum, & J. Bass-Haugen (Eds.). *Occupational Therapy: Performance, Participation, and Well-being* (3rd ed). Thorofare, NJ: SLACK, Inc.

Beauscher, A.V.S., Cidav, Z., Knapp, M. & Mandell, D.S. (2014). Costs of Autism Spectrum Disorders in the UK and the US. *JAMA Ped*, 168(8), 721-8.

Bureau of Labor Statistics (2019). *Persons with Disability: Labor Force Characteristics 2014*. Retrieved from <https://www.bls.gov/news.release/empsit.nr0.htm>.

Centers for Disease Control (CDC). (2018). Physical Activity Guidelines. Retrieved from [https://health.gov/paguidelines/second-edition/pdf/Physical\\_Activity\\_Guidelines](https://health.gov/paguidelines/second-edition/pdf/Physical_Activity_Guidelines).

Gagne R. (2010). Developing a Legally Compliant Job Demands Analysis. Retrieved from [http://www.fit2work.com/forms/ARTICLE\\_Fit2work\\_ClinicalEd\\_vol1\\_04.pdf](http://www.fit2work.com/forms/ARTICLE_Fit2work_ClinicalEd_vol1_04.pdf).

Johnson, C. (2018). *Fit4Work: Fitness for vocational tasks for youth with disabilities*. United States: Createspace Independent Publishing Platform.

National Technical Assistance Center on Transition (NACT). (2017). Competitive Integrated Employment Toolkit. R. Allison, J. Hyatt, L. Owens, K. A. Clark, & D. W. Test.

Physical Activity Guidelines Advisory (PAG) Committee. *2018 Physical Activity Guidelines Advisory Committee Scientific Report*. Washington, DC: U.S. Department of Health and Human Services.

World Health Organization. (n.d.) *Insufficient physical activity*. Retrieved <http://www.who.int/mediacentre/factsheets/fs385/en/>.

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