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THE CAPABILITY APPROACH MODEL: AUTISM VOCATIONAL EVALUATION AND EMPLOYMENT PLANNING

BY JACQUELYN M. MARQUETTE, PhD

This is an account of a pilot project conducted using the Capability Approach Model with eight young male adults in Kentucky's Vocational Rehabilitation Program. The Capability Approach (CA) is a vocational evaluation and planning service offered to young adults with autism spectrum disorders—who are in transition—their families, and other involved professionals. The purpose was to assess needs and skill ability, identify support strategies, then offer a comprehensive integrative plan to better enable the young adult to meet his desired employment goals. As with qualitative research, the researcher is the instrument intimately involved in interviews, listening to interpretations of their past experiences, hopes for a good future, and dreams. My background as a special educator and specialist in developing student jobs for a KY school district gave me experiential knowledge. Additionally, my ability to relate to the participants in this project was heightened because of my rich, extensive experience as a mother of an adult son with autism. That is, I have

experience in planning, strategizing, falling down, and getting back up to create a life for my son that he now not only enjoys, but also one that he owns. Stone and Priestly (1996) argue that the qualitative approach is particularly important in disability research and can be considered Action Research, offering positive potential in this arena. Qualitative research embraces peoples' perceptions about their experiences and explains how they attribute meaning and interpretation to their lives (Hartley & Muhiit, 2003). Because the research in young adults with autism spectrum disorders as it relates to employment is scarce or nearly non-existent, qualitative research seemed most relevant.

The pilot project utilized the Capability and Independence Scale (CAIS), designed as part of larger qualitative study on autism adults (Marquette, 2007) and involved interviews and feedback, both quantitative and anecdotal, on each young adult's life skills. All the young adults and family participants in this project expressed hope for a good future, but they did not have a strategy. The Capability Approach Model was the strategy they wanted to try.

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How do young adults with an autism spectrum disorder (ASD) and their families interpret skill ability, autism challenges, and individualized supports necessary for the employment goal?

AIMS OF THE PILOT PROJECT:

The aim of this study was to address the question: How do young adults with an autism spectrum disorder (ASD) and their families interpret skill ability, autism challenges, and individualized supports necessary for the employment goal?

Most individuals with ASD enter into the vocational rehabilitation system to begin the steps to find and secure employment. Vocational rehabilitation practices, however, are often ineffective, and this presents distress for consumers with ASD (Standifer, 2009). There is a lack of understanding among professionals about how to interpret the challenges that persons with ASD face, and this leads to closed doors into the world of work (Marquette, 2007). The professionals' view is often limited because they do not know what supports are or what they should look like for people with ASD. These misunderstandings may explain the result that 90% of clients with ASD drop out of vocational rehabilitation services because they cannot move beyond the assessment process into employment services (Standifer, 2009).

REVIEW OF THE LITERATURE

A brief literature review is offered on the broad areas of ability, employment, and family involvement.

CAPABILITY VERSUS ABILITY

Wolman (1973) provides the definition of capability: an individual's capability level extends beyond ability or currently observable behavior. Ability is the idea that an act can be currently performed; on the other hand, capability is the maximum effectiveness a person can attain under optimal conditions of support. The current practice—across schools and adult services—which focuses on measuring a student's independent life skill ability may be overemphasized, with the result that less regard is given to the supports that are likely to increase the individual's capability across community settings. This is a problem when individuals with intellectual and developmental disabilities do not reach expected independent levels after high school, at which point they tend to gravitate to isolated living (United Cerebral Palsy, 2009).

Although tools and checklists were available to aid a student's school transition to post-high school, no tools were found that examined capability skill levels both "independently" and "with assistance" in life skills by using these three features: **1.** examine beyond quantitative measurements that yield frequency, time, and prompting, **2.** rate an individual's capability with exposure to community settings where engagement in interests and strengths are explored, and, **3.** utilize four broad support areas that impact a student's responses and enhance community participation and inclusion. The CAIS was used to measure life skills, identify strengths, and emphasize broad support needs across seven domains of living (Marquette, 2007).

EMPLOYMENT

Searching numerous web engines for studies on autism and employment found very limited research. No studies were found on employment models or vocational assessments that address the challenges and support needs for autism spectrum disorders. Much of the data and national studies on employment and developmental disabilities were conducted prior to 2000. Additionally, few empirical studies determined

the extent and full range of types of postsecondary services, supports, and vocational programs for students with disabilities (Stumbo, Martin, & Hedrick, 2009).

Phelps and Hanley-Maxwell (1997) report that effective transition practices for youth with developmental disabilities include the following: school supervised work experiences, functionally oriented curricula tied to occupationally specific skills, employability skills, and academic skills. However, within the past decade these practices have been narrowly focused in school transition programs, and the results indicate students with developmental disabilities transition to being impoverished, unemployed or under-employed. As a result, they become socially isolated because they lack the necessary skills to obtain a positive quality of life. Many spend much of their time engaged in playing video games or other day-wasting activities (Smith & Routel, 2012).

There is extensive research literature on using job matching and discovery to develop vocational profiles for individuals with developmental disabilities, and this is where vision and personal preferences should emerge (Mast & Callahan, 1996; Mcloughlin, Garner, & Callahan, 1987). The vocational profile strategy attempts to provide an effective job matching strategy which focuses on the individual's demonstrated skills, experiences, home, family, friends, neighborhood, and preferences (Callahan & Garner, 1997; Callahan, 1991; Mast & Callahan, 1996; Mcloughlin, & Callahan, 1987). However, Lattimore, Parsons, and Reid (2003) suggest when employment specialists use the strategy of "good job match" only for employment options for persons with ASD, significant points of concern are omitted from the profile. Moreover, when vocational rehabilitation professionals use the criteria of independent job skill ability to determine job placement, the individual is at a disadvantage. Fewer considerations are taken into account concerning the complex nature of autism challenges and the individualized supports that may enable the individual to be successful on a job.

Assistance offered to individuals with ASD has focused on job searching skills, identifying appropriate jobs, preparing resumes, and interviewing. Although these are essential tasks and needed skills for getting hired, less is known or reported about specific supports that enable persons with ASD to get a job and maintain it (Hendricks, 2010). For individuals with autism, an expanded set of specialized interventions are necessary for job success (Gerhardt & Holmes, 2005).

On-the-job instructional strategies are critical for employment success, yet there is no research about how to teach adolescents or adults with ASD to keep a job (Hendricks, 2009). Natural supports include supervisors and company employees (Smith & Juhrs, 1995; Smith & Philippen, 1999). Wehman, Inge, Revell, and Brooke (2007) report that after the job coach fades, active strategies must be transferred to previously identified natural supports to maintain continual assistance. Yet no strategies exist to engage these natural supports for individuals with ASD. Long-term support services are especially important to this group since unexpected changes can be disruptive (Müller, Schuler, Burton et al., 2003). The research overwhelmingly demonstrates disappointing employment outcomes for the ASD group. The vast majority of those with developmental disabilities are unemployed, and for those who have gainful employment, underemployment is common (Smith and Routel, 2010).

PERSON-CENTERED AND FAMILY INTERDEPENDENT PLANNING

The CA utilizes the concept of person-centered planning (PCP). Person-centered planning is a widely used approach to support individual program planning in the field of intellectual and developmental disabilities. In fact it has been used in state-wide disability systems, including the Office of Vocational Rehabilitation to help determine job matches for consumers. The purpose is to develop collaborative supports focused on community presence, community participation, positive relationships, respect, and competence. PCP has been found to deeply meet the person as an individual and has tremendous value in goal planning.

Kim and Turnbull (2004) emphasize the perspectives of young adults, their parents, and family members as the driving force for all planning. They suggest that person-family inter-dependent planning approaches are needed to strengthen the capacity in both young adults with severe intellectual disabilities and their families. The purpose is to build formal and informal support circles that ensure that the young adult will be active in family and community life (Mount & O'Brien, 2002).

It is critical to include the young adult's immediate family and sometimes extended members in planning. Families of young adults in transition need genuine support of both professionals and community members working collaboratively because challenges are so complex across broad life domains and environment (Thorin, Yovanoff, & Irvin, 1996; Smith & Routel, 2010).

Turnbull and Turnbull (2001) recommend that service providers merge what we know about family-centered planning and person-centered planning and look more holistically at person-family-interdependent planning for delivering transition services to young adults with severe intellectual disabilities and their families. Finally, service providers should respect the uniqueness of families and consider these three approaches carefully. The family's environment and its culture, values, preferences, and needs should be factors in decisions regarding appropriate approaches.

CA was designed not only to use person-centered-planning but also to extend into an in-depth broader examination of individual strengths and challenges, broad support needs, and capability skills across diverse settings. It can then be applied to an overview plan that encompasses multiple insights into a personalized employment model.

SAMPLE

The Capability Approach pilot project began in April 2011 and ended in April 2012. It offered eight young male adults with ASD and their families a new vocational evaluation service to create opportunities to reach employment or pursue higher education. The CA vocational evaluation is a process that is person centered on behalf of the young adult, and it involves parents, professionals, and advocates in the process. The eight individuals were referred to Dr. Jacquelyn Marquette to receive the CA vocational evaluation through the Kentucky Office of Vocational Rehabilitation. Specifically, CA offered each young adult an in-depth interview and an evaluation using the CAIS to determine barriers, and to identify broad support needs. The purpose of CA was to develop a plan that would enable their journey forward into employment using their strengths, desires, interests, and capabilities with identified support needs.

DATA COLLECTION METHODS

Data collection for this pilot project was drawn from each one of the eight participants with an information sheet on demographic data, their CA case study reports, researcher's field notes, the CAIS score sheets,

and other pertinent documents the parents offered.

The information sheet allowed the parent or young adult to include demographic information, educational, medical, therapies tried, unmet needs, and goals. Initially, each young adult and his parent/family members participated in an interview for 60 to 90 minutes. Field notes were taken. The information was collected across all eight adults. During the individual interviews, CAIS forms were provided to all who wanted to participate on behalf of the young adult, and they were instructed on how to rate the young adult's skill level. The purpose was to rate the individual's capabilities across seven domains of living and 35 life skill items. Respondents were given additional forms to invite others who wanted to provide feedback about capability skills and support needs.

Within three weeks of the interview, participants mailed the CAIS forms and any additional documents for analysis. Signatures or phone approval were granted by the respondents to use private information in a report to the Kentucky Vocational Rehabilitation and/or for publication. Respondents were assured that identifiable information was excluded in any subsequent reports. Additionally, respondents were asked to complete evaluations to offer feedback on the practicality and the overall CA process. They evaluated their experience with the CAIS assessment, analysis, and recommendations for integrating individual strengths, interests, and broad areas of supports.

DATA ANALYSIS

Data analysis was drawn from each of the eight case study reports, i.e., field notes, individual scores, anecdotal data on the CAIS score sheets, and respondent feedback on evaluations to **a.** generate categories, subcategories, and codes; **b.** interpret patterns and themes; and to **c.** ensure rigor (Lincoln, 1995; Lincoln & Guba, 1985).

First, I identified text segments in the field notes, anecdotal data, and evaluations that appeared pertinent to the research question. Within each category and subcategory, I looked for patterns and themes across all eight young adults.

To ensure rigor, procedures to address credibility and transferability (Lincoln, 1995; Lincoln & Guba, 1985) were applied for accuracy of information, the triangulation of data. Triangulated data involved synthesizing multiple sources with the same information by, **a.** gathering information from multiple sources, e.g., young adults, their families, service providers or other professionals, and extended family members or friends who knew the young adult well; **b.** multiple locations, e.g., Louisville, Lexington, Elizabethtown, and Owensboro, KY; and **c.** participant feedback on accuracy of data in final report.

FINDING ONE PARENTAL VISION

When parents were asked their highest vision for their young adult, their responses overwhelmingly included having a job he enjoys or having the chance to attend college. Additionally, parents wanted others around their son to acknowledge his challenges and offer necessary supports for job success. "Enjoyment" and "fulfillment" in a job and daily living were key words expressed across all parents of the eight young adults. One mother reported that she wanted her son to be able to contribute something of value to others, whether in a place of business or in service to others. Another parent hoped her son would eventually have peace about accepting help or support from others. All reported they wanted their young adult to feel safe and be safe around people in day-to-day interactions and the work place. All parents were significantly involved with their young adults to establish resources or to create employment options.

FINDING TWO

GOALS FOR EMPLOYMENT AND COLLEGE

Of the eight young adults, three had goals in training/education, horticulture, video producing, and studying art history and political science. The remaining five had goals for a part-time job. One of these already had a job at a retail clothing store, TJMAXX, and another individual had two jobs, one a summer paid job picking up trash in a neighborhood park, the other job in a coffee shop, sorting and bagging coffee packages.

EMPLOYMENT GOAL

YA2, age 18.

Passionate in learning about animals.

YA6, age 21.

Enjoys swimming and doing community errands.

YA3, age 17.

Is absorbed in tractor repair and designing chains, as an art form.

YA8, age 21.

Desires a job and apprentice type training in video production & editing.

YA5, age 20.

Has a job. Highly spiritual, strong sensual awareness.

COLLEGE OR TRAINING GOAL

YA1, age 17.

Interests studying art history and political science.

YA4, age 27.

Apprentice type training with artist in macro photography.

YA7, age 21.

Interested in attending Carl Perkins training in horticulture.



FINDING THREE

INTERESTS TO CONNECT TO CAREER OR JOB

Varied interests were noted among all eight individuals in this pilot project. They exhibited broad enthusiasms in political science, art history, learning about animals, constructing artistic pieces using chains, exceptional detail about tractor repair, macro photography, playing the bass in parents' bluegrass band, strong spiritual awareness and interests in taking classes in Catholicism, enjoying spending time outdoors and desiring to learn about landscaping or greenhouse plants, and lastly strong interests in producing and editing videos.

INTERESTS REPORTED:

YA1 Mom reported, "He is very knowledgeable about current events and historic topics."

YA2 Mom reported, "He is highly capable of reading and using a computer."

YA1 Young adult reported, "I love to talk."

YA3 Mom reported, "He loves manipulating and bending chains and makes pieces that are creatively fascinating"

YA1 Mom reported, "He has a love of learning and has a unique perspective about current political events."

YA1 Mom reported, "Is extremely focused in his reading and studying about political science and history."

YA4 Dad reported, "Loves humor and irony."

YA7 Counselor reported, "Loves to be included in social get-togethers, longs for a family of his own." (He lived as a ward of the state throughout childhood.)

YA7 Counselor reported, "Loves his sisters and wants to be helpful when feels the love in return."

YA2 Mom reported, "Has zest, passion, and enthusiasm learning about animals. Has two dogs and enjoys walking them each day."

YA1 Mom reported, "He spends lots of time thinking and reading about large, global issues and possible solutions."

YA4 Dad reported, "He enjoys producing and editing videos."

YA2 Mom reported, "(____) has interests in animals, horseback riding, walking dog in neighborhood."

FINDING FOUR

TWENTY-SEVEN VOCATIONAL PRIORITY SKILL PRIORITIES

When the young adults in the project were rated unable to perform vocational skills independently, participants perceived these priority deficits as obstacles to employment. When problems arose for these young adults to perform independently, a closer examination showed that others rarely acknowledged their challenges, and they seldom offered supports as an intervention or an option. Young adult #1 said, "I have increased anxiety when others expect me to complete a task independently."

Relevant vocational skill priorities were found in the CAIS assessment across seven domains of living: General Life Skills, Cognitive/Intellectual, Community Life Social, Occupational, Domestic/Household Life, Emotional Stability, and Communication. Twenty-seven vocational skill priorities were identified as critical to achieve successful employment or college studies, regardless of severity of the autism label. The young adults who received this pilot service ranged cognitively from significantly low and very dependent to advanced and highly gifted intelligence. Regardless of the severity of their disability, these pertinent skills impacted most of them.

Of the twenty-seven vocational skills, nine priorities were identified as critical across all eight young adults. In the General Life Skills, all eight exhibited challenges in **A2 considering options and making choices**. This was significant because having the ability to consider among options to make a beneficial choice is a major feature in maintaining the responsibilities of a job. For example, one young man chose to linger on a class assignment too long and did not complete it on time, leading to a failed class. Six of the eight young adults had challenges in **B4 passing tests for employment, education, or personal development**. This vocational priority was a challenge especially when complete independence was expected or accommodations for taking a test were not offered by the employer or educational institution. Seven faced the challenge of **B5 thinking about and solving problems**. Most became anxious when confronted with change of a task or

structure of the day. When the young adults were required to solve a problem, they became considerably intensely less capable and anxiety increased when others expected them to perform independently. Six had difficulty in **D1 maintaining personal hygiene through self-care**. Complete success is required in this vocational skill priority to be accepted among peers, whether on a job or pursuing an education. Most young adults wanted to stick to a schedule (e.g., shower in the late evening) regardless of preparations for an interview, or an appointment in the middle of an afternoon.

As a whole, the young adults with ASD had a range of functioning levels. All eight exhibited the challenge in **D5 evaluating task completion**. This indicates a significant obstacle for individuals with ASD and may become the reason young adults lose jobs or fail in college studies. For example, not understanding all the steps in completing a task, impacts the ability to manage the task. Six had difficulty in using **F4 self talk or relaxation techniques to avoid obsessive/compulsive or aggressive behaviors**. Seven had challenges in **G1 initiating or responding to greetings or participating in ongoing conversations**. Having pro-social behaviors is critical to job success. Of the eight, seven young adults had difficulty on **G2 asking for help when needed; reporting illness or an emergency**. For example, one young man disregarded a foot rash for three days until his foot bled and he had difficulty walking. Six individuals had challenges on **G5 responding appropriately to non-verbal communication—social cues, gestures, facial expressions, etc.** This vocational priority is highly significant to success in employment and pursuing college.

According to Davis, Paleg, and Fanning (2004), the complexity of communication skills involves both verbal (35%) and nonverbal (65%) messages. Nonverbal messages greatly impact the effectiveness of receiving accurate information, interpreting what was said, and responding effectively. Other significant vocational priorities include the following: uses transportation system, e.g., automobile, bicycle, or public; understands and uses strategies for routine management, e.g., calendar, checklists, or daily schedules; consumes information, e.g., reading, listening, computer, or observing; understands jokes, sarcasm, figures of speech, etc; accommodates to new situations, change, or challenging events; adjusts or adapts to unfamiliar people; accepts and responds to feedback about behavior in social situations; exhibits willingness to learn new tasks on job; accepts correction by coworker or supervisor; gets along with and socializes with co-workers, e.g., breaks, on the job; follows instructions and works independently when necessary; takes responsibility for tasks, caring for pets, cleaning, trash, laundry, recycling; takes responsibility for own health and wellness—nutrition, medications, etc; interprets other people's feelings and emotions appropriately; feels or expresses emotion for personal accomplishment or loss; manages ridicule, rude behavior, or peer pressure by others; expresses own thoughts and desires clearly; and uses phone, mail, or email to communicate.

FINDING FIVE

Strengths were discovered in each of the eight young adults. Forty-nine different strengths were identified across all those receiving the CA service. Most participants in this pilot revealed the following: **a.** has a unique personality trait; **b.** was very precise and detail oriented, especially in areas of interests, e.g. artistic drawing; **c.** exhibits a willingness to learn new skills; **d.** is cooperative with people who established rapport; **e.** has good understanding of logic and order of things; **f.** is very trusting of others; **g.** has good long term memory; **h.** thinks in a visual way; **i.** is charming in his innocence; and **j.** is kind and humorous.

FINDING SIX

Participants reported that increasing predictability during times of change was significant to the young adult's success. They indicated the relevance of increasing predictability outcomes during training for employment, which would promote understanding of expectations, security in settings, and safety.

YA3 Mom reported, "He opens a drawer and touches the pictures trying to tell me something." I then said, "That is your daily report; you will go to school in the morning." He said "Yea!" Mom said, "Pictures speak so much predictability to my son."

YA2 Mom reported, "(____) needs someone to clarify for him through a visual what the outing will involve so he will know where he is going and what he will do."

YA3 Mom reported, "I wish they [school staff] realized how cooperative he can be when expectations are clear, and his anxiety level is down."

YA2 Mom reported, "He wants to know what activities like errands he will get to do the next day, and in fact he wants to know what his week will look like. He likes to go places and be involved."

YA4 Mom reported, "He gets very upset if his community living worker gets sick and can't show up. He is better if we can prepare him."

PARTICIPANTS ACKNOWLEDGE EMOTIONAL CHALLENGES

YA5 Mom reported, "He gets upset a lot when he thinks about his dad. His dad is in jail and never sees him."

YA5 Mom reported, "Loves to go to church. After a study class at church, the priest said that he had never seen a 17-year-old so highly spiritual. I think church gives him peace."

YA3 When asked if he accepts or responds to feedback about his behavior in social situations, Mom reported, "He doesn't like talking about his [bad] behavior."

YA8 Dad reported, "He is very good at expressing happiness and or frustration. Not good at expressing sadness."

YA8 Dad reported, "Can cope with ridicule on his own, but can also bottle up feelings."

YA7 Counselor reported, "Doesn't do well when angry."

YA7 Counselor reported, "Many find him annoying because his communication skills are a shortfall [others lack acknowledging his challenges]."

YA1 Mom reported, "Loves to talk about history and political science, I think many of his classmates see him as irritating."

YA2 Mom reported, "Does not demonstrate emotions much and sometimes does not understand and give others the proper response." Mom tells him, "Mommy crying." Mom said, "He knows something is wrong and touches my shoulder gently."

YA7 Counselor reported, "He had great difficulty when his grandmother passed away."

YA2 Mom reported, "He needs someone to ask him questions using a visual such as a calendar, checklist, or photo to help him give specific answers. Don't even try to communicate with him without a visual; he will lose everything you are saying."

FINDING SEVEN

RECOMMENDATIONS FOR BROAD CREATIVE SUPPORTS IN PLANNING AND IMPLEMENTATION

Three examples, Young Adult One (YA1), Young Adult Two (YA2) and Young Adult Three (YA3) are provided to show how recommendations were offered based upon challenges in specific skills.

YA1 has great difficulty in **adjusting or adapting to unfamiliar people**. His goal was to attend a university and live on campus. YA1 had strengths that could help him while pursuing a college degree; **a.** a unique personality trait, **b.** precise and detail-oriented, especially in art drawing, **c.** a gifted and above-average intelligence, and **d.** humor and wit.

Based upon respondent ratings and qualitative data, the integration of broad supports was suggested to enable YA1 with this challenging skill area. **A mentor (people support)** on the college campus designed to offer guidance when encountering unfamiliar classmates and professors. The mentor could not only help YA1 understand social conventions and protocol at lectures and tutorials, but also work on assignments in a group and send email messages to staff. Additionally, the mentor may act as YA1's support person when needed, for example, during academic discussions, one-to-one talks with students, rectifying misinterpretation of instructor's assignment instructions or helping him see the benefit of accepting advice from a professor or peer even if it is criticism. YA1 may use **checklists or other communication tools** as a guide and support during stressful or challenging situations when communicating with staff or peer groups.

YA5 recently received a certificate of completion from high school. He is nonverbal, and wants a part-time job. YA5 had many interests and strengths that make having a job a real option. Some of his strengths include the following: **a.** a real enjoyment in helping the elderly, **b.** a high level of sensory awareness, **c.** exceptional attention to detail in things he likes to do, such as computer and iPod, games, **d.** logic and order of things, **e.** unique personality traits, such as showing concern for sister and other family members if they are upset, **f.** very trusting of others, **g.** good long term memory, **h.** charming in his innocence, **i.** does well with a structure and exposure to different community environments. He had challenges in **problem solving, evaluating task completion, and adapting to change**. It was suggested that YA5 use people support(s) such as a coworker, job coach, employer, etc. who would do the following: **a.** see value in YA5's strengths and understand his challenges, **b.** assist YA5 in getting acquainted with new tasks, new work routines, people in the work culture, **c.** teach new skills through task analysis while noting and praising his willingness, **d.** support YA5's **adaptation to sporadic changes** within the workplace by explaining the change before it occurs and what his role is, **e.** provide a routine structure and visual checklist for on the job in preparation for upcoming work tasks, **f.** establish a structure for problem solving steps in tasks, **g.** determine a go-to person (co-worker support for help.)

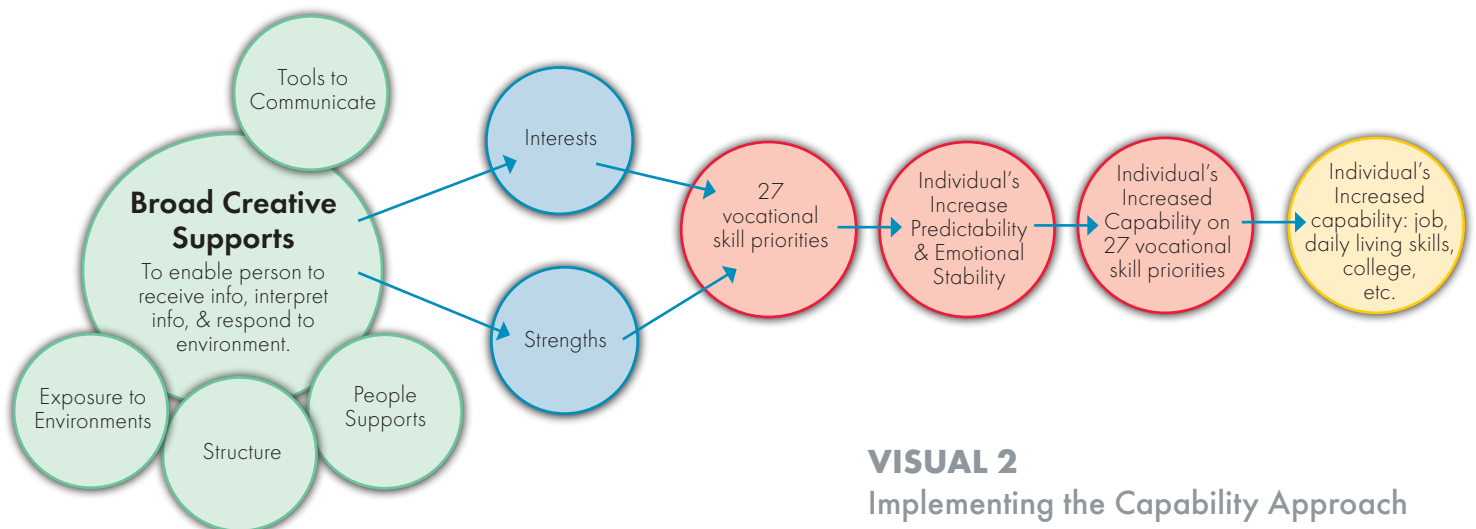
YA2, an eighteen-year-old young man, has a significant autism disability, is nonverbal, and continues to receive school services. Even with great effort, he has not been able to manage a community outing beyond one hour. Per his parents' goals, YA2 will have exposure and engage in community settings that are enjoyable to increase his interests and flexibility. His strengths include **a.** delightful personality and an agreeable nature, **b.** a good understanding of concrete rules and sequences when presented with a visual photo or checklist, **c.** very cooperative when expectations are clear and understood, **d.** visual thinker. Establishing the broad supports which are critical for YA2 include people, structure, communication tools, and stable environments.

RECOMMENDATIONS FOR PEOPLE SUPPORTS AND EXPOSURE TO ENVIRONMENTS

These refer to how people should acknowledge YA2's challenges and offer exposure to diverse environments. The suggestions are expressed from YA2's voice through the mother's voice as she perceived her son's needs.

- Recognize my interests in computers (games, You Tube), animals,
- Watch Disney videos and reading Disney books, horseback riding, bowling, soccer, music videos, outings at the library, the mall, and enjoying neighborhood walks
- Accept me for who I am today.
- Approach me with an open heart and slow your energy down. Take your time with me.
- Make eye contact with me. I am here. Come find me. Encourage me.
- Trust that I am trying, just not at your skill level or on your schedule.
- Do not assess my cognitive ability by how fast I think.
- Don't assume that when I repeat your last word or phrase, I have understood you. Rather, recognize I am trying to understand you.
- **Use communication tools with me** to clarify through a visual what the outing will involve so I know where I am going and what I will do.
- **Apply structure to my day and my week.** When evaluating my progress, consider if the structure of the day was appropriate for my best energy level for my participation in the outing.

The integration of Broad Creative Supports with vocational skill priorities, strengths and interests are shown below in Visual 2.



VISUAL 2
Implementing the Capability Approach

FINDING EIGHT

Based upon the participant ratings, each of the young adults in the pilot was perceived to have increased capability levels when Broad Creative Supports (BCS) were in place. These are indicated in the Visual 3.

Using the Likert Scale below, participants rated the young adult's skills both independently and with broad creative supports.

- 9** capable of functioning and living independently; i.e. like the vast majority of the population.
- 8**
- 7** occasional assistance, guidance, or supervision needed; particularly for periods of stress on specific issues such as legal/financial matters.
- 6**
- 5** some assistance needed for most functions; Supervision needed for specific issues like legal/financial and complex matters, ongoing support for daily routines.
- 4**
- 3** considerable assistance needed to learn and perform most skills; Can do simple tasks if provided assistance or close supervision.
- 2**
- 1** extensive assistance needed all the time; can learn and perform simple task with continuous supervision.

FINDING NINE

PERCEPTIONS OF RATERS ABOUT THE CAPABILITY APPROACH

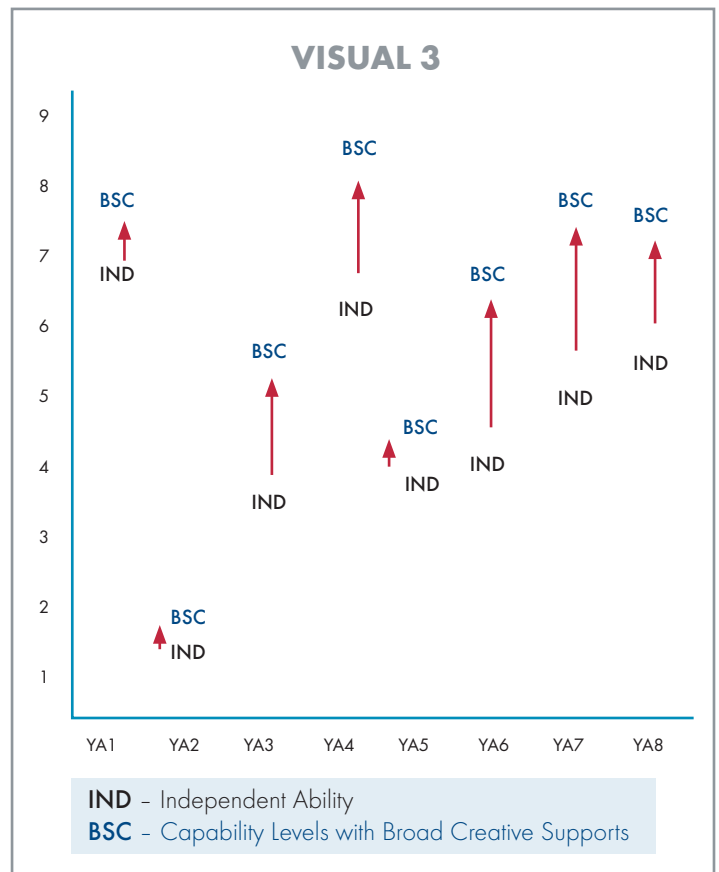
After the Capability Approach Assessment was completed and a team meeting was held to provide results and recommendations, all participants were given a sheet of evaluation questions with space for feedback: of six parents, five evaluations were returned with one containing both parents' responses. Regarding the other two young adults, one individual's parents did not complete the evaluation; the other individual had been a ward of the state as his parents had not been involved in his life. Five of the seven vocational rehabilitation counselors involved in the project completed the evaluation. Two employment specialists, one special education teacher, and one social worker also provided feedback. One of the pilot project participants received the Capability Approach service via private pay; thus, he was not yet a client of vocational rehabilitation. Overall feedback was favorable to the practicality and usefulness of the Capability Approach.

TEACHER COMMENT (YA3)

YA3 "is dependent on people working with him to understand him. He will be more adaptable. Needing opportunities to experience the community is crucial. It is not occurring because they fear unpredictable behavior. **Broad Creative Supports (BCS)** are needed because he has a difficult time self-regulating. He will require 24/7 support. The staff is missing the big picture; this report will help them see. Assessment will open many doors and shed light on what he needs."

VOCATIONAL REHABILITATION COUNSELOR COMMENT (YA3)

"Goals suggested were accurate in that they are appropriate and realistic. I have recommended this service to other counselors. Jackie did a great job of assessing his strengths and weaknesses and putting



it together in a cohesive report. Really appreciate the feedback on independent living... couldn't agree more."

SOCIAL WORKER'S COMMENTS (YA1).

"I hope you are able to continue these assessments. Without it, YA1 would still be floundering without direction, resources, or support."

PARENT COMMENT (YA1)

"I think the BCS will enable my son, but the key factor is finding the supports and getting them into place. I think his vocational skills can be developed with the BCS. Without the supports, I don't think he would ever be able to set and attain goals other than those he has a strong interest in."

PARENT COMMENT (YA2)

"I am the parent of a young man with autism. I found it to be one of the most comprehensive tools for future planning that I have come in contact with. Previously, other assessments were not good matches for my son's needs, and I felt the information was either invalid or not helpful. The CAIS provides an opportunity to individualize a person's strengths, abilities and needs. Transition to adulthood in a young person's life requires a critical look at where they have come from and where they want to go while incorporating strengths and needs. A young person with a disability requires the same process. The CAIS recognizes current ability while acknowledging needs. I highly recommend this assessment to help consumers and families determine 'next steps' in the transition journey."

PARENT COMMENT (YA3)

"I realize this has been in the back of my mind for at least the past 18 months or so. I knew what the vision was; I just didn't have a clue about pulling it all together. This is like a roadmap designed just for my son."

Specifically, there is a void in research to better understand the holistic needs of adults with autism, their challenges and strengths, individual needs, and broad supports as it relates to achieving educational endeavors and employment outcomes.

PILOT PROJECT LIMITATIONS

This was a small pilot project, involving eight young adults with autism, their parents, and other involved advocates and professionals. It was entirely appropriate to use qualitative inquiry with a new vocational evaluation, to better understand how they interpreted their transition experiences and attributed meaning in their daily lives to finding employment solutions. The research question was focused on their perceptions and on how they see their capabilities, support needs, and their employment goals. Several limitations are offered. First, all participants were male. Additional research should also explore females with ASD during transition to employment or college. Second, the parents of the participants were asked to provide feedback on accuracy of the final report; however, participants were not provided transcripts of field notes to check for accuracy. This project was a small pilot, and caution is suggested against broad generalizations of these findings to all young adults with autism spectrum disorders and their parents.

DISCUSSION

This pilot project offered the Capability Approach service to eight young adults with ASD and their parents, or other supportive advocates, revealed insights perceived relevant for attaining and maintaining employment. Although there is extensive research literature for using job matching and discovery with vocational profiles for individuals with developmental disabilities (Callahan & Garner, 1997; Callahan, 1991; Mast & Callahan, 1996; & McLoughlin, & Callahan, 1987), applying job matching strategies only to develop a vocational profile has not shown promise in developing employment for individuals with ASD. Thus, individuals may require supports beyond the job matching preparations in the vocational profile preparation. Research overwhelmingly demonstrates disappointing employment outcomes for the ASD group (Henricks, 2010). Moreover, research is nearly nonexistent for effective strategies in autism and employment. Specifically, there is a void in research to better understand the holistic needs of adults with autism, their challenges and strengths, individual needs, and broad supports as it relates to achieving educational endeavors and employment outcomes. Participant perceptions revealed the CA offered a strategy of support planning for employment through the CAIS, a process and progress-monitoring tool that measured life skill capability both independently and with broad creative supports, identified strengths, and emphasized specific broad in-depth supports.

Findings from this pilot project were viewed by participants as relevant to the young adult with ASD, to **1.** build a framework within a planning structure based on the assessment of the individual's challenges with broad supports, **2.** realize and develop interests, and **3.** apply strengths and interests to gain employment or educational goals, and **4.** integrate all the above into a vocational profile that becomes effective for implementation.

Twenty-seven skill priorities, soft vocational skills were found relevant to employment or pursuing training or higher education. When broad supports were structurally integrated with each of the twenty-

seven vocational skill priorities, autism challenges were perceived to diminish and skill capability increased. Given the overwhelming participant response to support needs, a new term and definition is offered, Broad Creative Supports (BCS). The BCS structure for autism support includes constructing the following: **a.** tools for communication—such as visual pictures, drawings, photographs, sound therapy or devices (e.g., glasses for vision)—improve functioning; technical assistance to self regulate behavior in order to manage the stimuli within a setting (e.g., checklists); or communication such as an Apple iPad or or iPad touch; **b.** environments including exposure to different settings to increase the individual's participation in daily living, develop interests, community adaptation, skill maintenance, and personal contribution to community; **c.** structure, such as routine set, arrangement of the order of daily activities, or a list of events that have purpose, meaning, or enjoyment; and **d)** people of understanding, including peer mentor, peer student, coworker support, and others reflecting acceptance through positive feedback, acknowledging challenges, and recognizing strengths and capability. This structure is adapted from Wolman's (1973) factors that impact a person's behavior and is used with each one of the life skills in the CAIS. In developing interests, it is critical to enhance individual choice, increase acknowledgment of feelings, and opportunities for self-direction in order to reinforce intrinsic motivation that allow greater feelings of autonomy (Deci & Ryan, 1985).

New theory is offered here. When capability is evaluated within a framework of vocational skill priorities and Broad Creative Supports, emotional capability is also examined. When BCS are identified and implemented, participants perceived an increase in the young adult's predictability within change and chaos. The in-depth broad supports were viewed as contributing to emotional capability necessary for job effectiveness. According to Seipp (1991) anxiety undermines the intellect and sabotages performance of all kinds. Although his research was not targeted toward autism, perhaps the antidote to ASD failed employment outcomes has been our inability to increase predictability through the transition from school to post-high school outcomes. For example, a young man with a high intelligence and interest in chemical engineering failed at college because he could not accommodate to new diverse college settings or adjust to numerous unfamiliar people all at once. With high expectations on independent ability and without supports in place to enable effective adaptation, he failed at college.

If there were 50 pieces to the autism employment puzzle waiting for us to arrange, the job matching profile using primarily interests and preferences, would in my view resemble only eight pieces. The 42 remaining missing pieces reflect insights that the disability industry of employment services are not using; moreover, many of these include vocational skill priorities that reflect soft vocational skills necessary to maintain employment.

The question isn't why do people with autism fail in obtaining or keeping a job? Rather, in evaluating and securing employment for people with ASD, the question should be what have we been missing? The promises of job matching strategies have left persons

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with autism sitting on the side of the road. Applying the twenty-seven vocational skill priorities, which are the soft vocational skills perceived as necessary in building emotional capability, may be the missing pieces as part of the vocational profile. If we include them, we move closer to putting the puzzle together for employment and autism.

IMPLICATIONS FOR RESEARCH

The author plans to proceed into future phases of qualitative and quantitative research using the Capability Approach with **a.** school staff interested in using CA to increase the transition program to post-high school outcomes for their students with autism spectrum disorders and/or, **b.** a vocational school or college staff use the CA for individuals with ASD to increase their capability levels in soft vocational skill development for employment or college success, and **c.** in collaboration with other researchers, the author plans to

develop a psychometrically sound scale for measuring capability and independence within vocationally priority skills and broad creative supports.

Using qualitative research methods, the author is interested in **a.** exploring CA to create quality of life options, **b.** using CA to manage social barriers in teens and young adults, and **c.** applying broad creative supports to enhance the emotional capability in ASD employment or college bound students.

In summary, the field has had the rhetoric of using job matching and vocational profiles for individuals with disabilities in supported employment services for several decades. The next logical step is to match that rhetoric with conceptual framework in capability and broad creative supports that will guide the evolution of research and employment success for adults with autism over time to ultimately produce significant and sustainable enhancements in outcomes.

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