



# Enabling Organizations to Better Support Autistic Employees: Assessment Tools & Strategies

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## **Disclosure**

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# Supporting autism: An organisational perspective

- Large corporations have begun to target and employ people on the autism spectrum for ICT jobs
- Novel recruitment strategies are useful in overcoming shortfalls in existing HR practices
- How to create sustainable work practices and processes?
- Two areas to consider:
  - **Recruitment**
    - New/modified ways to recruit/select that are not as reliant on interviews/CVs
    - Extended length to allow candidates time to demonstrate their abilities and strengths
  - **Maintenance**
    - How to provide better support, reasonable work place adjustments, extended on-the-job training
    - Identifying strengths and challenges, strategies to address problems, successful retention and expansion of programs

# Valuing diversity at work

- Dimensions of diversity
  - Autistic employees, along with other disadvantaged groups (e.g., ADHD, dyslexia), can offer diversity – different ways of problem solving, approaches to work that may stem from their unique/divergent cognitive profiles
- “Untapped source of talent” (Austin & Pisano, 2017)
  - Autistic employees are rated on dimensions such as work ethic, attention to detail, and quality of work
- Increasing diversity in the workplace can:
  - Reduce discrimination of underrepresented groups (Ely & Thomas, 2001)
  - Give organisation access to markets and clients among underrepresented groups
  - Help organisations adapt and change because they integrate what they learn from diverse employees

- However, implementation of diversity programs in organisations can have adverse effects including:
  - Critique and scepticism from staff and managers
  - Reduction in number of employees with disabilities over time
  - Managers becoming aware of their limitations in terms of skills and training to support employees with disabilities

(Soldan & Nankervis, 2014)

# Focus groups with co-workers of autistic employees

Spoor, Hedley, Canton, Bartram, & Dissanayake, 2018



- **Increased autism knowledge through autism awareness & training, and also through interaction**
  - [knowledge about autism] “Yeah. I guess it was important for us to know certain things to look out for, because if someone's having a bit of a moment, you'll need to be aware”
  - [adjustments] “So that was a great help in terms of how you would approach your work and how you would give work out et cetera - knowing what they can and can't handle. But they were relatively minor adjustments, they weren't major adjustments, both physically and environment-wise and what-not, it's easily accommodated”
  - [on differences between individuals] “Yeah, but they also have different - there's different - what can I say? Not everyone has the sensitivity to sound or light, so they've all got different traits. They've all obviously been diagnosed, but there might be different bits that go towards that diagnosis.”



- **Positive/improved work outcomes**

- The quality of the work that [the] team did for testing was absolutely fantastic. In terms of actually the quality and the ability to get through work was - yeah look I certainly would - they would be great to have as a test team come in and work on other projects. Focused, driven, competitive in a good way.
- They're very detailed in their work, to the feedback that I've spoken to them and people that work with them. Which is a great outcome for us, and also great opportunity for them to be able to do work, what they can actually - their skills make them more valuable.
- We've been fortunate where the individual has been quite open and honest about his personality, his behaviours, what he understands, what he doesn't understand as far as facial expressions et cetera. I think the team have accepted him quite openly and the work that he's produced, the team actually feel a bit more motivated, they actually feel a bit challenged, because he is quite smart. It allows them to actually - you could be threatened by that I guess, but the team have embraced it and actually use that as an opportunity to work together, to achieve work goals.

- **Negative perceptions and problems – difficulty integrating in to broader workforce**

- “I do think though that while they do need the support to get in, they’ve maybe been a little bit too supported, a bit too isolated from the general organisation”
- “I feel like at some points when they first started, it was kind of like they were a bit too sheltered, too protected in a way. They weren't at the beginning given a chance to branch out and kind of - and I understand why, obviously controlled environment so you don't know anything could happen. But it was more like I felt it would have been better to let them branch out and let them interact with people, get them to know people more. Like how [other participant] said just then, it's just there's no - you can't really tell with some of them and I feel like if you treat them like any normal person would, they're not going to - nothing's going to happen, nothing bad will come out of it.”
- “The three young lads that I did talk to, all expressed concerns that they didn't know how they were perceived by the rest of the organisation. So I did get the feeling that they'd been excluded a little bit. Or I don't know, ‘sheltered’ I think is the word that I'm looking for”
- “...if that was one of the original aims of the thing was to break down the barriers and make them - make it easier for them to be seen. In which case, we don't see a lot of that happening.”

**Autism@Work programs, although offering many benefits, are thus not without their challenges**

# Support targets in the vocational setting

## (Spoor, Hedley, & Bartram, 2018)

### Social skills support

- Difficulties often derive from interpersonal interactions, not usually job performance itself
- Increasing opportunities for social interaction in the workplace may benefit individuals on the autism spectrum, and also assist with efforts to better integrate autistic employees with the broader workplace
- Social skills are also often targeted in efforts to improve interview techniques in people on the autism spectrum

## Interview training

- Most common job selection method
- Training in social-pragmatic skills (changing communication based on situation & partner) improved performance in a mock interview (Morgan et al., 2014)
- Technology (e.g., web-based employment training program) can help develop interview skills (rehearsing responses to questions, greetings etc) (Strickland et al., 2013) – but is this sufficient?
- Virtual reality training (Smith et al., 2014) has also shown some improvement in interview performance

## Organisational-level interventions & strategies

- Support workers & awareness training common strategies to build organisational capacity (Rashid et al., 2017)
- Autism support workers/job coaches
  - Specific skills and experience in autism
  - Support the individual and the organisation
  - May be full-time, or “as needed” – more intense at start, and then drop back as employees become more independent, may assist with specific training or when problems identified
  - Recognised as being “key to success” (Hagner & Cooney, 2005; Hedley et al., 2017)
  - Can work with 1 or multiple employees
- Peer mentors within the organisation
  - Victorian government program

## Workplace-based awareness training and education

- Awareness of social and communication difficulties is important in understanding challenges faced by autistic employees in the workplace
- Non-autistic co-workers can adjust their communication style to improve interactions with employees on the spectrum
- Interactions can be much improved when the co-worker is aware, and has an understanding of autism, and willing to adjust their communication style to the person on the spectrum
- Understanding autism is also important for supervisors
  - scheduling work, breaking down tasks, assisting with time management, organisational skills, clear and direct communication, reducing “idle time/downtime” etc.
- But, awareness training may need to be repeated as people leave or change to new departments

## Broad organisational changes (Austin & Sonne, 2014)


- 3 main areas
  - Job design
  - Recruitment & Selection
  - Training & Development
- Value diversity
  - Openness to diversity
  - Flexible and open to job needs and how they change
- Recognising non-traditional forms of talent & skills
- Instead of “fitting the person to the job”, organisations need to **“fit the job to the skills of the person”**



# Supporting success with new recruitment and assessment instruments designed for people on the autism spectrum

- It is important to be able to assess work skills, work preferences, and evaluate intervention effects
- Identify areas of strength as well as areas for improvement
- Appropriate and evidence-based assessment instruments can help to identify a better fit between the individual and the job
- And better support them in the workplace

## Employment programmes and interventions targeting adults with autism spectrum disorder: A systematic review of the literature

Autism  
1–13  
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aut.sagepub.com  


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Santoshi Halder<sup>3</sup>, Amanda Richdale<sup>1,2</sup> and Cheryl Dissanayake<sup>1</sup>

- Identified two work-related assessment instruments designed for people on the autism spectrum
- Autism Work Skills Questionnaire (AWSQ; Gal et al., 2013, 2015)
  - 78-item, semi-structured assessment instrument
  - Creates an employment profile on domains
  - Domains include work habits, level of independence, sensory needs
  - People with and without autism score significantly different on the instrument
- Work Performance Evaluation (WPE; Katz et al., 2015)
  - Developed to assess work performance in people with autism
  - Limited by restricted score variance, small sample/study



Contents lists available at [ScienceDirect](#)

## Research in Autism Spectrum Disorders

Journal homepage: <http://ees.elsevier.com/RASD/default.asp>



## BRIEF REPORT

# Development and Reliability of the Autism Work Skills Questionnaire (AWSQ)

Work performance skills in adults with and without high functioning autism spectrum disorders (HFASD)



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### Autism Work Skills Questionnaire (AWSQ)

- Self-report assessment of vocational profile
- Aimed to produce good person-job match
- Worldwide
- Free of charge (contact authors for copy)
- 2 published studies assessing validity & reliability
- 78 items, 5 domains
  - Work habits, working style, Independence in work & study, Routine daily activities, Interpersonal skills
  - Questionnaire or structured interview

## A Summary Table for Section C1-5 and D1-5

Reminder: When summing scores the items in italics in each category above must be reversed.

<b>C. Habits, Style and Independence at Work</b>	<b>Score range</b>	<b>Total for category</b>	<b>Average</b>
C1. Work habits	12-60		
C2. Work style	13-65		
C3. Level of Independence in work and studying	11-55		
C4. Routine daily activities	22-110		
C5. Interpersonal skills	16-80		
<b>Total</b>	74-370		Sum C/5
<b>D. Sensory work environment</b>	<b>Score range</b>	<b>Total for category</b>	<b>Average</b>
D1. Touch	4-20		
D2. Visual	4-20		
D3. Auditory	2-10		
D4. Smell	2-10		
D5. Movement	2-10		
<b>Total</b>	14-70		Sum D/5

# Application of the AWSQ

- We have been administering AWSQ as part of a “Vocational Profile & Aptitude Testing” for DXC technology
- AWSQ – semi-structured interview completed with the candidates (collaborative)
  - Job preference profile, aimed at identifying strengths & areas for support, developed in conjunction with the candidate, drawing on past experience where possible
- DAT – Differential Aptitude Test for Personal and Career Assessment (e.g., verbal, mechanical reasoning), online
- We provide a report based on results for the organisation and for the individual and specific, individualised recommendations

# Example of individualised recommendations based on AWSQ interview

1. Provide sufficient notice and warning of upcoming change to routine.
2. Requires clear communication regarding social or other expectations.
3. Will benefit from having a consistent and predictable work-flow, and general predictability in the work environment.
4. Will benefit from a well-structured work environment. This could include assistance in prioritising activities, preparing a daily work plan and breaking tasks into smaller steps.
5. Ensure tasks have clearly defined goals and requirements. Confirm that she understands goals and what is required of her (including priority, expected time-lines).
6. She will benefit from frequent and clear feedback on performance (particularly identifying things done well) to help build her confidence at work. For corrections of errors, feedback should be direct (unambiguous language), explain exactly what she should do instead, and should confirm that she has understood what is required of her.
7. She identified that she would benefit from a mentor to assist her navigate the social environment at work.

# Outcomes

- The organisation found that reports & recommendations based on the AWSQ and DAT were consistent with their own recommendations following 3-weeks of face-to-face assessment
- As a result, they are reducing their assessment process from 3 to 1 weeks, reducing costs, stress & inconvenience to the candidate, and standardising their assessment process
- We hope to further refine the AWSQ and the assessment procedure in order to provide a thorough and comprehensive report that both accurately acknowledges the strengths & capabilities of the candidate, while also identifying useful strategies for supporting his/her workplace success
- To do this, we are working with the authors of the AWSQ to revise and improve the instrument

# Work performance evaluation and QoL of adults with High Functioning Autism Spectrum Disorders (HFASD)

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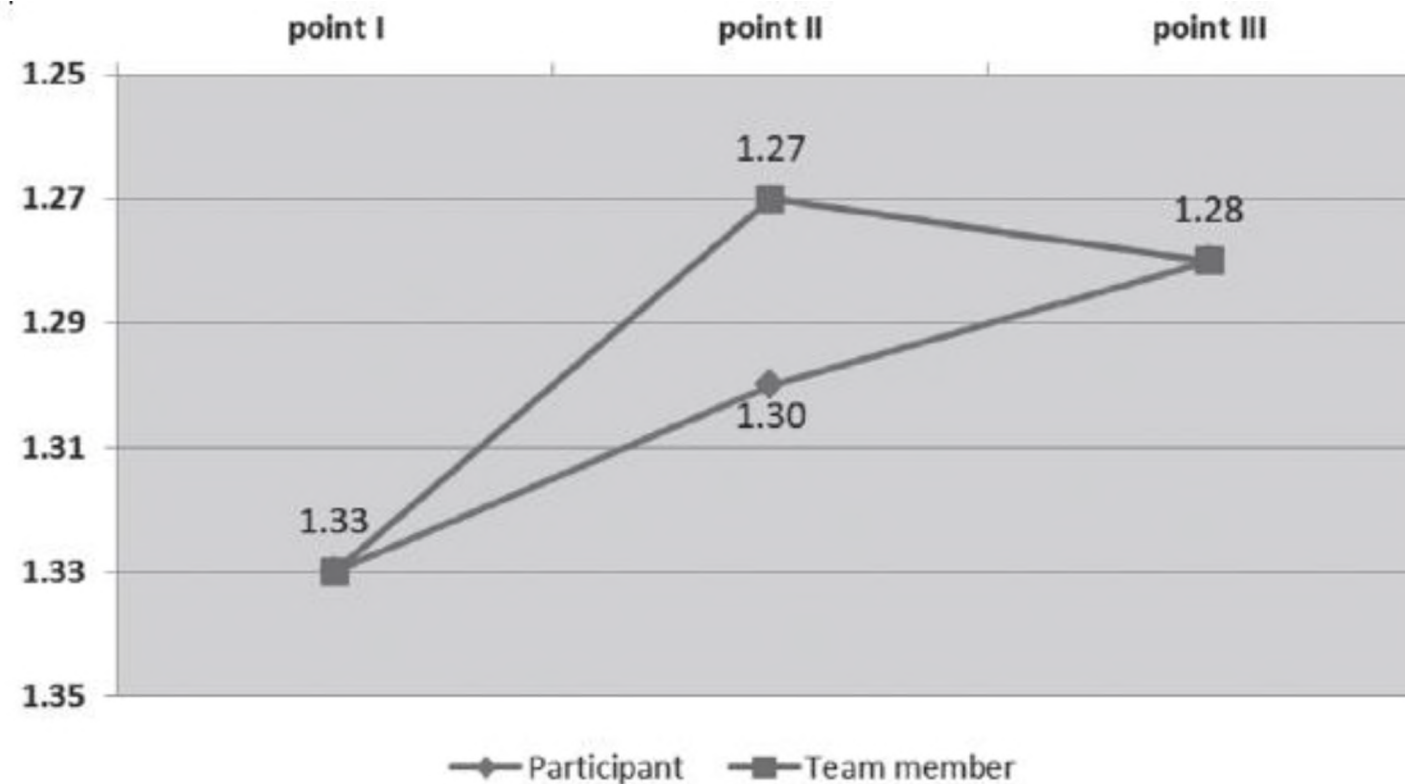
<sup>c</sup>*Department of Occupational Therapy, University of Haifa, Mount Carmel, Haifa, Israel*

- **Katz, Dejak, & Gal, 2015:** The achievement of successful employment outcomes for people on the autism spectrum includes:
  - Teaching work related skills
  - Training in vocational related social skills
  - Long-term career development commencing prior to adulthood
  - Assessment of employment related skills
- Provision of a supported employment program that serves both professional goals, and also cognitive and social-communication abilities, and sensory profile
- Establishing a good person-employer match, both technically and personally



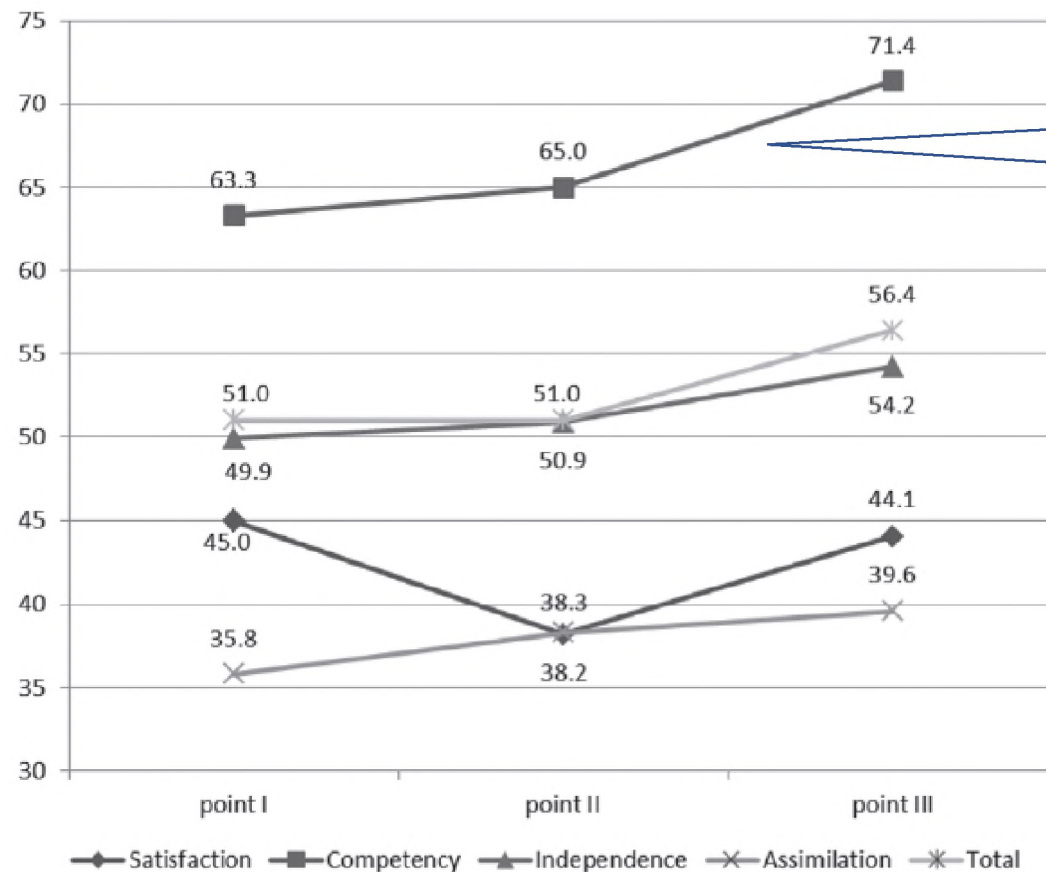
- Assessed change in Work Performance and Quality of Life over 9 months in 26 people (18-40 years) in various jobs on the open market, but in a supported environment (Beit Ekstein provides housing, employment, educational services)
  - Participants transitioning from education to employment
  - Jobs included hospitality, library, computer jobs etc.
- Intervention included assessment of work skills, preparation for work, placement according to skills & preferences (AWSQ), support from professionals in the workplace to assist the placement into community jobs
  - QoL self-assessed at 4x time-points
  - Work Performance Evaluation (WPE; initially developed by Beit Ekstein) completed at the same time by individual and also by a supervisor
- WPE evaluates work performance, including:
  - Work quality, inter-personal relationships with employer, colleagues, & clients, security, diligence, & efficiency
  - 31 statements completed on a 1-4 Likert scale
- Quality of Life Questionnaire (QoLQ; Shalock & Keith, 1993)
  - 40 item self-report administered as an interview

# WPE at 3, 6, & 9 months



Although evaluations were relatively high (lower scores better), there was no significant change/improvement over time on this measure.

# Quality of Life Questionnaire at 3, 6, & 9 months



T1-3,  $p < .001$ ,  
 $d = .40$

# Conclusions

- All 26 participants maintained their jobs during the 9-months
- Individuals evaluated themselves highly, as did their team members
  - Ceiling effects of WPE?
- Improvements only on Competency subscale of QoLQ (63-71 points)
- The utility of the WPE as a suitable assessment of work performance was not entirely clear from the study, however it offered a number of strengths (designed for people with autism)
- We felt the instrument could be potentially useful for our program, given some modifications in terms of scoring

# Revision of the Work Performance Questionnaire (WPQ) & eWPQ



- We identified the WPE as a potentially useful tool for the DXC Dandelion Program
- The program had no research-developed instruments for assessing and evaluation employees work performance, but the organisation had identified a need for an instrument to help assess work skills
- After initially contacting Dr Eynat Gal, I met with her in Baltimore to discuss use of the instrument
- We discussed translating the WPE into English
- After translation, and back in Australia, our team recommended a series of significant revisions, including to wording of questions, scoring, and addition of a section for evaluating improvement
- The revised tool became the Work Performance Questionnaire (WPQ)
- We consulted with DXC team and support persons in Adelaide, and sent the heavily revised version back to Israel
- Dr Gal's team accepted most of the revisions, and incorporated them back into the Hebrew version
- We then developed an electronic version (eWPQ) of the instrument for use in the DXC program, which was tested by team members with autism employed in the Dandelion Program
- The WPQ is currently under evaluation with both Israeli and Australian participants
- Has been generally well received by both employees on the autism spectrum, and support staff
- We hope to have the evaluation paper ready towards the end of the year, and released for general use

# WPQ - It is important to be able to identify & talk about:

- What you're good at or doing well
- Areas for improvement
- What you can do to build skills and improve
- Know what you are doing to improve is actually having an effect/working

**WPQ provides an opportunity for employees on the spectrum to talk about their work and also their career plans, and to evaluate their performance critically**



# WPQ can be viewed as a toolbox

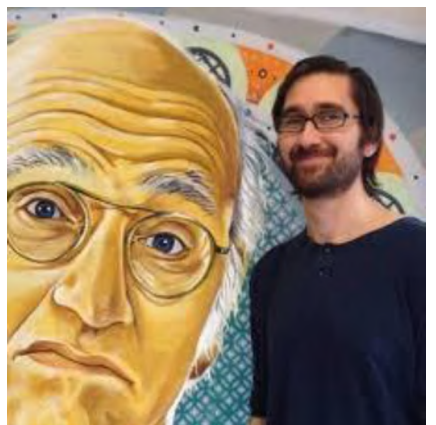
- Identify areas of strength and improvement, in a number of important work related areas



- Opportunity to discuss & develop a plan to tackle problems
- Can be repeated (e.g., 3/6 month intervals)
- Can improve individuals competitiveness for new positions
- Can be used to identify things to be included in CV or discussed in a job interview



# Contributions & thank you to...





**Thank you**

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