



Autism and Agriculture

Evaluation of an Autism Specific Employment Program

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About the Cooperative Research Centre for Living with Autism (Autism CRC)

The Cooperative Research Centre for Living with Autism (Autism CRC) is the world's first national, cooperative research effort focused on autism. Taking a whole-of-life approach to autism focusing on diagnosis, education and adult life, Autism CRC researchers are working with end-users to provide evidence-based outcomes which can be translated into practical solutions for governments, service providers, education and health professionals, families and people on the autism spectrum.

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1. Introduction

Autism and Agriculture was a program developed to recruit, employ and retain people on the autism spectrum in SunPork Farms piggeries. Utilising methods as described in section 3, the Program led to the employment of 16 people on the spectrum. This report provides the evaluation of the Autism and Agriculture Program.

The evaluation aimed to identify factors that are facilitative and limiting of the successful employment of autistic people in the piggery context. Adopting a mixed methods design, data was collected through survey, and interviews and focus groups. Participants were: autistic employees; co-workers; mentors, supervisors and managers of the autistic employees; parents/carers of autistic employees; and unsuccessful candidates. The findings demonstrate the Program was largely successful, with limiting and enabling factors identified as being related to: recruitment; training; supervision and management; role design and description; sustaining employment and independent living.

2. Background

Autism is a condition present in approximately 1% of the population. Diagnosis is defined by differences in social interaction and communication, and fixed and repetitive interests (American Psychiatric Association, 2014). Autism is a spectrum and individuals may have very varied capabilities and support requirements in these areas.

The labour participation rate for people on the spectrum in Australia is lower than all individuals with disabilities, being 40.8% for autistic persons compared with 53.4% of people with disabilities. This contrasts to an employment rate of 83.2% for individuals without disabilities (Australian Bureau of Statistics, 2015). People on the spectrum who are in employment, however, are often underemployed – meaning they are employed at less than fulltime or in positions that are below their education and skill level. Further, this cohort earn less per week when compared to other disability groups (Cimera & Cowan, 2009; Roux et al., 2012; Shattuck et al., 2012). Autism has been estimated to cost \$939m-\$1.4b per annum as a result of lost productivity (Synergies Economic Consulting, 2011).

Employment has economic, social, and individual impacts. Stated benefits include enabling people to: contribute to society; socialise; have economic independence; and, have a sense of accomplishment and purpose (Chen, Leader, Sung, & Leahy, 2015; Krieger et al., 2012; Roux et al., 2015). Increasing employment opportunities for this group can therefore be socially and economically beneficial both for the individual and for society (Hendricks, 2010). However, securing and maintaining employment is a challenge for people on the autism spectrum. Identified barriers include: differences in executing and interpreting communication, both verbal and non-verbal; difficulty managing change in routine; patterns of hyper or hypo sensory experiences; social relationships; and, employers' attitudes and concerns regarding job-seekers' skills (Krieger et al., 2012; Sarrett, 2017; Scott, Falkmer, Girdler & Falkmer, 2015).

However, recent literature has indicated employment of autistic persons as having positive impacts for business. Autistic employees are often viewed as “not just merely successful, but outstanding employees” (Hagner & Cooney, 2005, p.96). In a recent study, autistic employees showed “above standard workplace performance when compared to their counterparts with regard to increased attention to detail, work ethic and quality of work” (Scott et al., 2017 p.6). Further, the addition of the strengths and abilities often present in individuals on the spectrum diversifies the workplace, potentially offering organisations a competitive edge (Luecking, 2008).

The agricultural sector is challenged by labour and skills security. Low levels of education, limited innovation in training, promotion and recruitment, and competition from other industries leave agriculture struggling to maintain an adequate, qualified workforce. However, some people on the spectrum poses certain attributes – such as empathy with animals, exceptional focus and attention to detail – that make them ideal for animal care positions. Inspired by the United Nations Call to Action, inviting businesses to make concrete commitments to employ people on the autism spectrum, the Autism and Agriculture Program was born.

3. Program Overview

The Autism and Agriculture Program (termed the Program herein) was a world-first initiative of SunPork Farms and the Cooperative Research Centre for Living with Autism (Autism CRC) to employ autistic individuals in piggeries. The Program was developed as a pilot with the aim of evaluation and subsequent modification for utilisation within the agriculture industry.

In conjunction with Specialisterne Australia, the autism-specific Program of: recruitment; selection, orientation and training; and, workplace readiness and employment support was developed and trialled in two SunPork piggeries – one in Queensland and one in South Australia. The Program led to the employment of seven autistic employees in Queensland, and nine in South Australia. This report provides an evaluation of the trial, with Program elements described below to provide context.

Program Objectives

The objectives of the pilot Program were as follows.

- To adapt existing recruitment, employment, workplace and follow-up methods to the piggery context.
- To use the methods to align known attributes of some adults on the spectrum with employment opportunities within SunPork Farms. Attributes being:
 - empathy with animals;
 - exceptional ability to focus and pay attention to detail;
 - finding comfort in repetitive activities;
 - performing well on solitary tasks; and
 - capacity to innovate.
- To recruit, assess and prepare a minimum of eight trainees for entry into paid animal care roles at SunPork Farms and to retain them in employment thereafter.
- To evaluate the pilot Program, enabling modification of the methods and approach accordingly.
- To facilitate future opportunities to extend a successful autistic employment and animal welfare strategy across Australia and internationally.

Program Planning

Planning and preparation of the Program involved the autistic community. The team identified important elements of the current Specialisterne employment methods, extended and further developed the processes and methods to include industry specific practices. To this end, the team adopted the following guiding principles to develop the Program:

1. Strength-based orientation recognising that every prospective candidate and employee has value to bring to the organisation.
2. Enhancing understanding of autism to promote acceptance and inclusion in the workplace.
3. Flexible and open recruitment process to enable candidates to make applications in a format they feel most comfortable.
4. Competency-based assessment to allow candidates to demonstrate their skills and abilities.
5. Long term employment and career progression, taking a long term view to support, learning and development.
6. Inclusion and universal design to ensure full integration and equal participation in the workplace.
7. Individually tailored support plans and accommodations to ensure every employee has the opportunity to succeed in their employment.
8. Engage local community support services to promote independent living and community participation.

These eight guiding principles governed every aspect of Program development and delivery and are maintained through employment within SunPork.

Program Elements

The Recruitment Process

To ensure a flexible and open recruitment process, the traditional recruitment, selection and onboarding practices were redesigned. In contrast to a resume and interview process, recruitment comprised two parts:

1. **Online survey** requiring general information such as personal details, qualifications, current employment status, agricultural experience, details of diagnosis and sensitivities.
2. **Written, pictorial or video submission** which provided an opportunity for candidates to provide additional information about:
 - themselves;
 - their experience with animals;
 - why they think they might be suitable for the positions; and
 - what the positions might do for them.

The formats for submission were:

- four photographs with captions;
- a short video (<5min); or
- a short written response (100 words or less).

Candidate Selection, Orientation and Training

Competency-based assessment allowed candidates to demonstrate their skills and abilities throughout the recruitment, orientation and training weeks. Candidate selection, and candidate self-selection, was enabled through the provision of orientation and training weeks. A customised orientation process (identified as Week 1 through this document) provided opportunity for candidates to orientate to the work environment, practices, procedures, and demonstrate skills.

This entailed:

1. **A virtual/ mock piggery at an offsite location.** The objective of which was to expose individuals in a controlled manner to the piggery environment – specifically, sensory stimuli such as sound and smell, equipment, uniforms, elements of work tasks such as climbing into a pen, and personnel. Family members and other support personnel were catered for at the activity.

-
2. **A guided piggery tour.** The objective being orientation to farm and exposure to production. The tours were undertaken in groups comprising up to three candidates, a farm tour guide and an autism support person. Candidates were familiar with the farm guide, autism support person, piggery setup and activities from the virtual piggery experience.

Following this, candidates participated in **training** (identified as Week 2 and 3 in this document). This involved core skills training followed by job specific training.

Resources to support orientation and training provided to candidates included written, visual and video instructions and materials on: piggery work tasks; the pig industry; the screening and selection process; local community; and, other areas of relevance.

Workplace Readiness

To enhance understanding and promote inclusion, the team provided SunPork Farms-wide 'understanding Autism' training. Staff were also provided with information flyers with basic information about autism. This information was provided in both Filipino and English to accommodate cultural diversity. The presenters were from autism specialist organisations and included input and experiences of one of the Program team members who is a person on the spectrum.

Employee Support

Program elements for employee support included:

- modified, supported human resource systems to best accommodate new employees;
- individual support plans;
- commencement at part time hours;
- provision of a mentor for each autistic employee; and,
- workplace and lifestyle support provided by disability service provider agencies, as needed and requested by the employees.

Mentors

To enable effective support, each employee was paired or 'buddied' with one or more experienced members of staff. The mentors provided one-on-one support, training and coaching to the new employees. Training was provided to mentors regarding candidates' strengths, and autism specific learning techniques and training strategies.

Onboarding

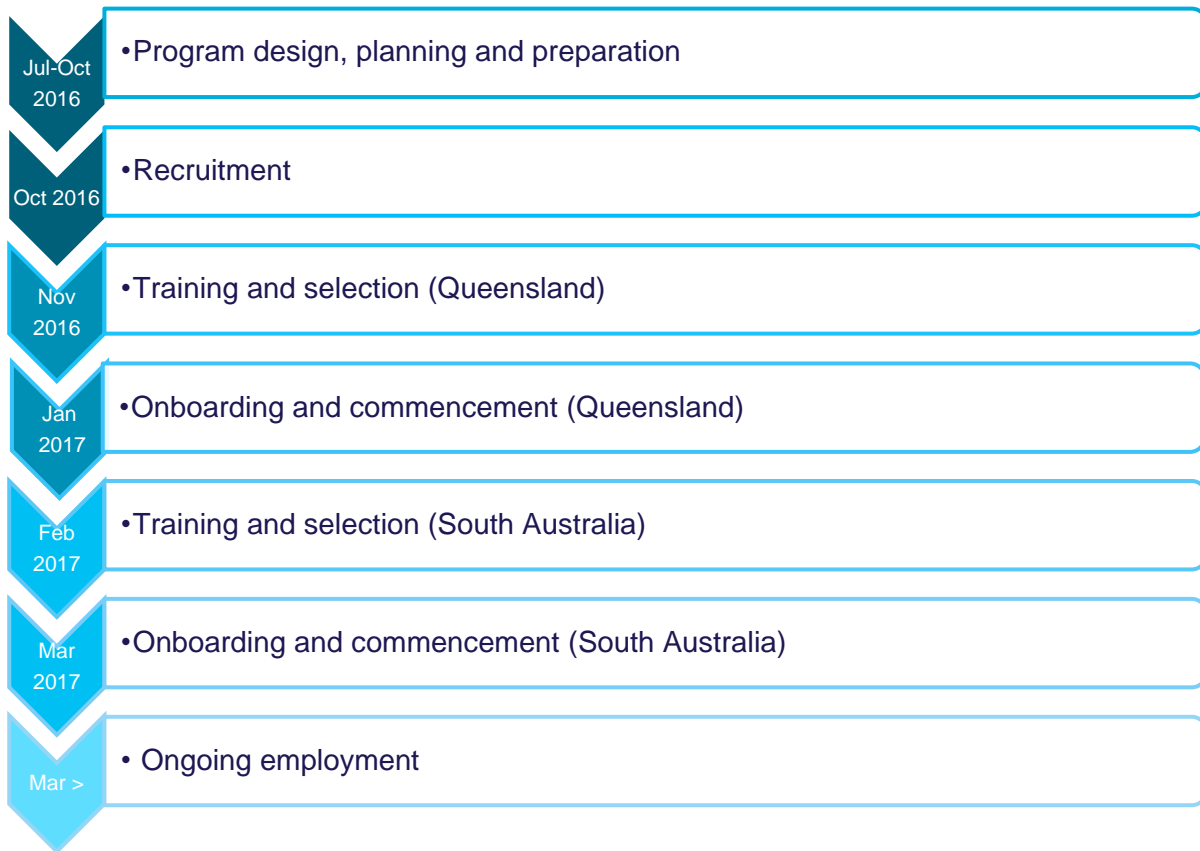
Prior to commencement in the positions, Individual Support Profiles (ISPs) were developed for each employee. This included information about their strengths and support needs to promote a smooth transition to the workforce and success in employment.

Some transition and housing assistance was provided to the new recruits at their request. In Queensland, an Occupational Therapist met with a number of the successful applicants to help them identify appropriate housing and living situations. In South Australia, Autism SA provided some independent support to ease transitions and promote independence. In Queensland, the Project leader provided this support. It is worth noting that not all candidates required, or wanted support with their living arrangements.

Community Support

With the view to employment success for candidates, the Program team co-ordinated employee support from local community service providers Waminda Disability Employment Services (Queensland) and Autism SA (South Australia), where required. Provision of support entailed assistance with independent living.

Program Timeline



4. Aim

The aim of the research was to evaluate the Program in relation to factors that facilitate or limit the successful employment of autistic people in the piggery context. To meet this aim, the research questions were:

Research Question 1: What aspects of the Program are limiting or enabling of autistic employment, according to:

- autistic employees
- mentors
- managers
- parents/carers of autistic employees?

Research Question 2: What are co-workers attitudes' to workers with disability and autism prior to the program, and do they change with the employment of autistic individuals?

Research Question 3: What are the barriers and enablers of autistic employee longevity of employment within the Program, according to:

- autistic employees
- mentors
- managers
- parents/carers of autistic employees?

Research Question 4: What are the advantages of the Program, according to:

- autistic employees
- unsuccessful candidates
- mentors
- managers
- parents/carers of autistic employees?

5. Method

Design

Data were collected through mixed methods. As shown in Figure 1, survey data were obtained from five participant groups pre-post-employment. The pre-post design was adopted to monitor change in opinion over time, with the pre-employment data collected before autistic employee commencement of work, and post-employment data collected approximately 13 weeks after. Interview data were obtained from participant groups post-employment. As also shown in Figure 1, the four research questions were addressed through both qualitative and quantitative methods, and with various stakeholder groups in order to explore various perspectives of Program limiters and enablers (Creswell, 2011; Hesse-Biber, 2010; Kroll & Neri, 2009).

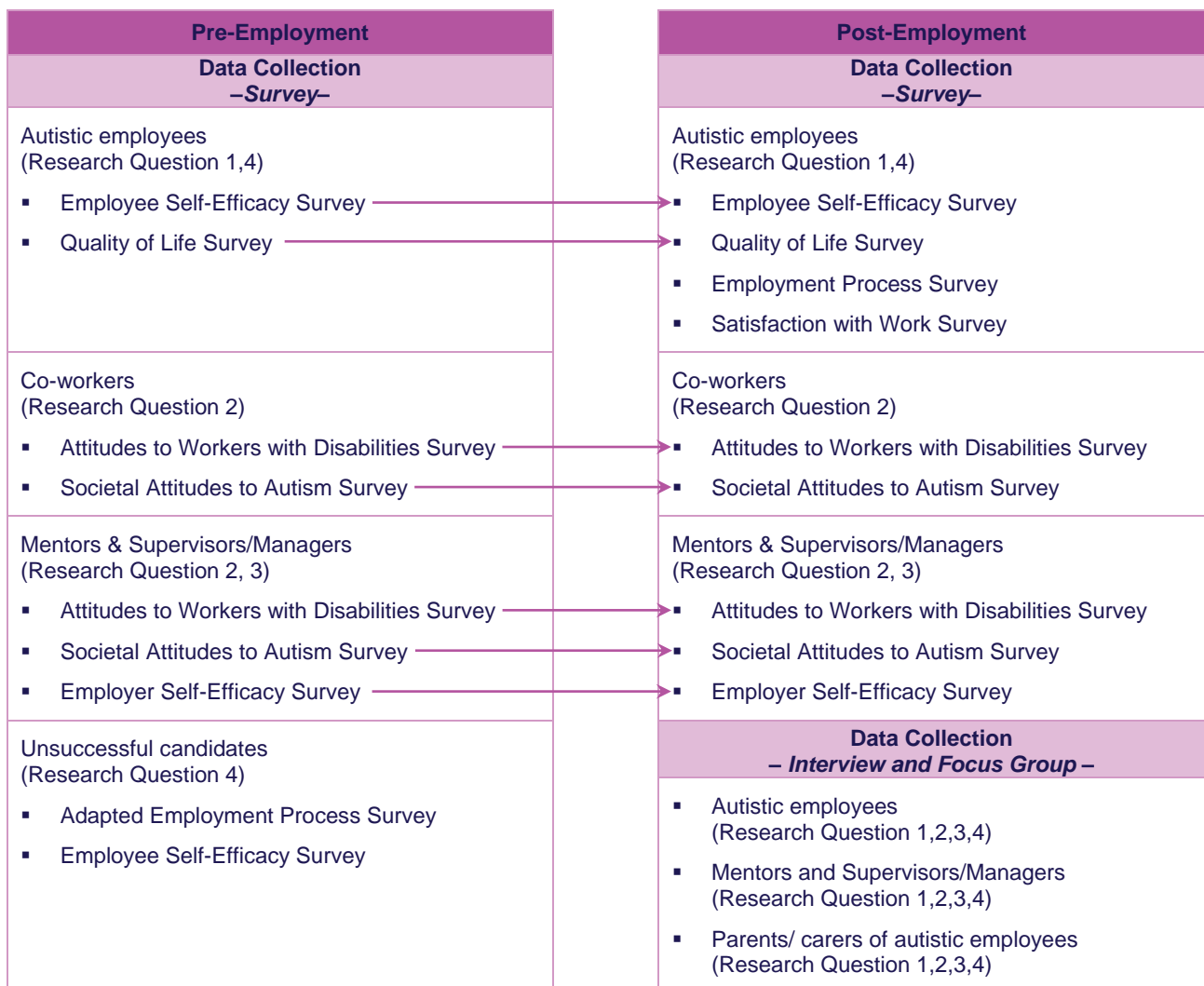


Figure 1: The Research Design

Figure 1 shows pre-post measures illustrated by arrowed lines, and the mode of data collection adopted to answer the four research questions.

Participants

Participant demographics for those involved in survey data collection are described below, followed by those who participated in interviews and focus groups.

Survey Participants

In total: five autistic employees (\bar{x} age=22.2); 37 co-workers (\bar{x} age=43.6), being those that worked in the same piggery as the autistic employees; 14 mentors and supervisors of autistic employees (\bar{x} age=37.1); and, four unsuccessful candidates (\bar{x} age=22.5) - being autistic candidates who were not offered a position at the piggery sites - provided data through surveys.

As shown in Table 1, the majority of participants in each group were male. Most of the autistic employees who participated in survey moved intra-state for the employment position, and worked at the Queensland site. This contrasts to the other groups which had the majority of participants working in, or applying to work in, the South Australian site.

Table 1: Survey Participant Demographics

	Autistic Employees n=5	Co-workers n=37	Mentors/ Supervisors n=14	Unsuccessful candidates n=4
Site				
Qld	3	16	5	1
SA	2	21	9	3
Age				
\bar{x}	22.2	43.6	37.1	22.5
Min & Max	19-29	19-69	26-56	16-32
Gender				
Male	3	27	13	3
Female	2	10	1	1
Education				
Primary	0	1	0	0
Secondary	1	23	4	1
Tertiary	3	11	10	1
Unknown	1	2	0	2
Marital Status				
Single	4	13	2	3
Married/ De-facto	1	24	12	1
Relocation				
Inter-state	1	-	-	-
Intra-state	3	-	-	-
Did not move	1	-	-	-

Interview and Focus Group Participants

In total 13 autistic employees; 8 families/carers of autistic employees; and, 27 mentors, supervisors and managers of autistic employees participated in an interview or focus group interview, as shown in Table 2. The majority of autistic employee and mentor, supervisor and manager participants were male (n=11 and n=19 respectively). Most of the autistic employees worked at the Queensland site (n=7), however, the majority of mentor, supervisor and manager participants were from the South Australian site. The majority of family/carer participants were interviewed with regard to employees at the Queensland site (n=5), and most of this stakeholder group were female (n=5).

Table 2: Interview and Focus Group Participant Demographics

	Autistic Employees n=13	Mentors, Supervisors and Managers n=27	Families/carers of Autistic employees n=8
Site			
Qld	7	11	5
SA	6	16	3
Gender			
Male	11	19	3
Female	2	8	5

Data Collection

Data collection methods were survey, and interviews/focus groups. These are detailed separately below.

Survey

Surveys were employed to enable data collection from geographically dispersed participants and to enable change over time to be monitored through pre-post administration (Creswell, 2011; Hesse-Biber, 2010). The surveys utilised for this evaluation are described below and the information regarding execution of the surveys as illustrated in Figure 1. All tools administered to people on the spectrum were evaluated by an autistic adult with regard to face validity, wording of items and survey layout. Subsequent changes were made to the layout for online modality.

The **Employee Self-efficacy Scale** and **Employer Self-efficacy Scale** measure self-efficacy in relation to the employment of people on the spectrum. Both tools consist of 15 items with participants rating their confidence in relation to employee or employer work related elements, using a 10-point Likert scale. The tool enables calculation of a score for each item and, for the employee version, an overall score with a higher total score indicative of greater self-efficacy (Scott, Girdler, Falkmer & Falkmer, in press).

The **World Health Organization's (WHO) Quality of Life** survey (WHOQOL-BREF) is an abbreviated generic Quality of Life Scale that previously has been used in an autistic population (Hong, Bishop-Fitzpatrick, Smith, Greenberg & Mailick, 2016). The survey assess quality of life across four domains: physical health; psychological; social relationships; and, environment. The WHOQOL-BREF has been reported to provide a sufficient profile of the included life domains with good psychometric properties (Skevington, Lotfy, & O'Connell, 2004). The survey consists of 26 questions across domains and utilises a 5-point Likert scale (WHO, 2004). With approval from the WHO, amendments were made to the wording and layout of the survey for use with autistic people and in the Australian context.

The **Employment Process** and **Adapted Employment Process** surveys were developed by Curtin University to measure aspects of autism specific employment programs. The original tool comprises 25 statements regarding the employment process, with 18 in the adapted version. Participants rate their opinion and experiences of the employment process using a 10-point Likert-scale. Minor alteration to item wording was undertaken for both versions for utilisation in the piggery context.

The **Satisfaction with Work** survey incorporates 18 positive and negative statements and is used to measure people's opinion of current employment. Participants rate their strength of opinion with the items using a 5-point Likert scale. The scale has a reported reliability coefficient of 0.87 (Brayfield & Rothe, 1951).

As there was no available tool validated for measuring attitudes towards employees with autism, the **Scale of Attitudes Toward Workers with Disabilities** (SATWD) was used to assess change in attitudes. The SATWD is a standardised questionnaire used to measure employer attitudes towards employees with a disability in the workplace. It comprises 25 items eliciting level of agreement with each item on a 7-point Likert scale. A high inter-rater reliability has been demonstrated for the SATWD with weighted Cohen's Kappa scores being 0.70 to 0.87 (Kregel & Tomiyasu, 1994). A total universal score can be computed and in the current evaluation, items that were neutral were excluded in computing this in order to more accurately detect a change in attitudes. A higher total score indicates a more positive attitude towards disability in the workplace.

The **Societal Attitudes Towards Autism** (SATA) scale measures attitudes towards autism. It comprises 16 items evaluating societal attitudes towards autism and adopts a 6-point Likert scale. It has been reported as reliable, with a level of internal consistency of 0.86. The total universal score (15-60) can be computed for each participant, with high scores representing a positive attitude (Flood, Bulgrin & Morgan, 2013).

Interviews and Focus Groups

Interviews and focus groups were utilised to elicit in-depth information pertinent to the research questions. A semi-structured protocol was adopted to provide focus during conduct while ensuring the questions were relatively consistent for all interviews (Berg, 2007; Johnson & Turner, 2003). The protocol incorporated open ended questions regarding Program elements. Specifically:

- pre-employment processes - recruitment, selection and orientation;
- employment practices and processes - such as training, mentor-mentee relationship and co-worker attitudes; and,
- opinions of the Program - including barriers to employment longevity, Program improvements, benefits and impact.

Autistic employees and families were also asked their opinion on housing, relocation and service provider support, where relevant.

Procedure

With regard to **survey**, participants were provided the option of hardcopy or online completion via Qualtrics. Autistic employees and unsuccessful autistic candidates were also provided with the alternative to complete the survey by responding to questions over the phone. Pre-employment surveys were distributed for completion in the two weeks prior to successful candidates commencing work. Post-employment surveys were completed when employees had worked for 13 weeks. Successful and unsuccessful candidates were emailed links to the online surveys via a third party who held their details (as per ethics approval). For other groups, hardcopy surveys - which included links for online completion - were distributed in the work environment. Secure boxes were provided for completed surveys to protect privacy and anonymity.

In relation to **interviews and focus groups**, participants were invited to partake through the distribution of information sheets and consent forms. For those who consented, the interviews/focus groups were administered in person at the employee's place of work, to aid environmental familiarity. The exception was families/careers for whom interviews were conducted over the phone as a result of distance. To promote disclosure, the interviewer had not previously been involved in the development and/or implementation of the Program, but was experienced in the field of autism and autism employment. To further promote disclosure, one-on-one interview method was used with autistic employees (Berg, 2007). The mentors, supervisors and managers were provided with option for participation as interview or focus group, with utilisation dependent on participant availability and personal choice. Mentors and supervisors were interviewed in the same focus groups as several participants fulfilled both roles. The number of participants in the focus groups ranged from two to four.

All interviews and focus groups were conducted after the autistic employees had been working for a minimum of 13 weeks. The interviews/focus groups ranged in length from nine to 61 minutes. All interviews and focus groups were audio-recorded to assist in data analysis.

Analysis

Survey Data

Data analysis was undertaken using SPSS version 25. Missing data was classified as missing at random (Higgins, Deeks & Altman, 2011). Casewise deletion was undertaken when demographic information was completed but no responses were recorded.

To identify change from pre- to post-employment, only paired data – being data from participants who completed both the pre and the post measures – was analysed. Pre-post data was not subject to statistical analysis for autistic employees due to low numbers (n=5). Statistical analysis for pre-post data from other stakeholder groups, with the exception of the SATWD, was undertaken using Wilcoxon signed rank tests. This was deemed appropriate as Shapiro Wilk tests showed non-normality in the pre-post item-level data. Following convention, a p-value of <0.05 was adopted.

In analysing change in mean total score between pre- and post-employment for the SATWD, items that were regarded as neutral (n=6) were excluded. The distribution of the change in the total score was close to normal and accordingly, a t-test was used to identify the p-value.

Interview and Focus Group Data

Analysis was undertaken using NVivo 11 Data Analysis Software Package. Data were analysed independently for each of the sites (n=2), and for each stakeholder group (n=3), using direct content analysis procedures. This involves categorising data into pre-determined themes. In application to this research, these themes were the phases of the Project, which were topics for discussion as per the semi-structured interview protocol. Meta-themes were identified and alike data were grouped into sub-themes (Auerbach & Silverstein, 2003; Ezzy, 2002). Where no sub-themes were created, grouped data were categorised as meta-themes, and data not coded were analysed to determine if new themes could be created (Hsieh & Shannon, 2005). While data from the sites were analysed independently, no major differences were found so are reported together.

The reliability of themes was assessed through code verification with the second author. Specifically, the themes and verbatim quotes illustrating the themes were presented, and areas of disagreement were discussed until consensus was reached. In reporting the results, gender specific references have been replaced with a gender neutral 'he/she', and identification of site has been deleted where relevant, to preserve participant confidentiality.

Ethical Considerations

Ethical clearance was sought and granted from Curtin University's Office of Research and Development (approval number HRE2016-0199). Informed consent was obtained from participants prior to conduct of interviews and focus groups, and consent was implied on completion for surveys. Where a participant was less than 18 years of age, assent was provided and formal consent was gained from their parent/carer.

6. Results

Results of the research, and brief summarisation of key findings, are detailed sequentially for each stakeholder group.

Autistic Employees

Surveys

Participation in survey ranged from three to five participants. This precluded analysis beyond descriptive statistics and designated results as potentially not representative of the stakeholder group. Accordingly, the results were not informative to the conclusions and recommendations. However, in the interest of transparency, the results are reported in Appendix A.

Interviews

Analysis of the data established five meta-themes and nine sub-themes, as shown in Table 3. The themes are described below, with any differences between sites reported.

Table 3: Interviews with Autistic Employees: Meta-themes and Sub-themes

Meta-theme	Sub- theme
1. The Application Process	1. Finding the Advertisement 2. Completing the Application 3. Benefits of the Process
2. Orientation and Training Weeks	1. Informative and Preparatory 2. Demonstrating and Job-Skills Matching
3. Mentors	1. Helping and Teaching 2. Relationship with Mentor
4. Workplace Environment	1. Colleagues and Work Atmosphere 2. Work Schedules
5. Longevity of Employment	

Meta-theme 1: The Application Process

This theme groups together participant discussion of how they heard about the position, whether they received assistance to complete the application and perceived benefits of the methods. The sub-themes included in this meta-theme are 1. Finding the Advertisement, 2. Completing the Application, and 3. Benefits of the Process.

Sub-theme 1: Finding the Advertisement

Most of the participants heard about the employment opportunity through a third party, specifically family members, mentors and teachers. These third parties learned about the advertised positions through various sources including television, internet searches, Facebook and word of mouth.

Four participants were informed of the opportunity from an employment agency, with one participant discovering the job through a web search.

...a job employment agency. They weren't very fun but they told me about it...

My aunty found it on TV and told me about it.

Sub-theme 2: Completing the Application

All participants who recalled the process specified they received assistance to complete the two-part application process. Assistance was provided by family members, teachers, employment agencies and mentors. All indicated completing the submission using written and pictorial submission - none indicated using the option of video submission.

I think I did a resume- my dad help me a bit with it I think.

I did the first part of the survey by myself but then I had to write a letter explaining about me and family and mum helped me with that.

Sub-theme 3: Benefits of the Process

A number of participants specified circumventing a formal interview process as advantageous. They indicated that the opportunity to apply using various modalities enabled them to utilise their strengths. For example, one participant suggested they chose written modality as literacy is their

strength, with another choosing written as they are 'camera shy'. Participants also indicated that utilising process alternate to interview was appropriate for people on the spectrum.

The majority of people on the autism spectrum will show signs of anxiety, actually talking to the manager is far more terrifying than doing an online application in such a manner.

Meta-Theme 2: Orientation and Training Weeks

This theme represents aspects of the orientation and training weeks. This meta-theme includes sub-themes 1. Informative and Preparatory, and 2. Demonstrating and Job-Skills Matching.

Sub-theme 1. Informative and Preparatory

With regard to the orientation week- which consisted off a virtual piggery and piggery tour- the majority of participants reflected on this week as being 'good', 'beneficial' and 'fun'. When describing benefits, some discussed that it was informative and helpful to be exposed to, and experiment with, work related elements such as the equipment, uniforms and noise – as well as activities such as injections and ear tagging. It was also considered that this enabled them to see if they thought the farm environment and tasks were appropriate for them.

They had the different stations set out and that was good because it shows you the different things they did.

We learned what sort of things we do there, what sort of safety equipment we have to wear, basically just learning what happens at a piggery and see if we like it or not.

With regard to the training weeks, the majority also identified this as both informative and preparatory for work. When asked if there were things they should have been told or taught during the training weeks, most indicated that the 'basics were covered', however, suggested that other tasks needed to be taught later. These were unit specific activities such as hosing, tattooing and medicine administration. Two participants indicated they should have been informed of the work hours.

Sub-theme 2: Demonstrating and Job-Skills Matching

Participants identified the training weeks as enabling them to get to know other staff and for them to self-assess their suitability for working in the piggery. Most participants suggested that a) the training weeks provided an opportunity for them to 'show our strengths and weaknesses' and their suitability for the position, and/or b) enabled the applicant and employers to undertake job-skills matching.

In the last day I was able to find something I really liked...for the first five days I wasn't able to cope with being in the piggery because it smelled really fricken bad... it was a good way to find out what I wanted to do.

Meta-theme 3: Mentors

This theme comprises of dialogue related to mentors, and mentor-mentee relationships. All participants identified one or more mentors. The sub-themes, which pertain to this theme, are 1. Helping and Teaching, and 2. Relationship with Mentor.

Sub-theme 1: Helping and Teaching

The majority of participants indicated that their mentor was instructive and 'helpful'. These facets, along with being available to provide on-the-job instructions and help to manage tasks, were considered the most important things mentors did. With regard to being helpful, this related to having somebody 'you can ask', 'to help you out', to 'fix mistakes', 'make sure I'm okay'. Instructive nature of the mentee and mentor relationship included teaching new skills 'on the go' and teaching 'to do the right things'.

Sub-theme 2: Relationship with Mentor

Having a positive and/or supportive relationship with their mentor was indicated by most participants. Some participants identified the relationship as having morphed into that of a 'co-worker' and/or 'friend at work'. A small number at the Queensland site, however, also indicated communication difficulties due to English not being their mentor's first language.

The problem is that English is not his first language so when I speak sometimes it can be fast and he can't understand me that happens a few times but not often.

Meta-theme 4: Workplace Environment

This theme groups together discussion around participants' work environment. The sub-themes related to this meta-theme are 1. Colleagues and Work Atmosphere, and 2. Work Schedules.

Sub-theme 1: Colleagues and Work Atmosphere

All participants espoused positive experiences with their colleagues and/or the work atmosphere. Discussion related to colleagues indicated them as being 'friendly', 'welcoming' and 'patient'. Further, participants reported that colleagues often filled the mentor role in circumstances where their mentor was not available. The work atmosphere was described as 'good' and that 'everyone treats you like family'.

Sub-theme 2: Work Schedules

Participants from the South Australian site expressed satisfaction with the work schedule, however, the majority at the Queensland site identified this - specifically length of shifts and starting times - as problematic. A number indicated the long work hours and early start times as resulting in exhaustion, further, they highlighted a lack of flexibility around alteration of hours.

We work too many hours. I don't mind working until later in the afternoon but at the moment I don't get home till 5.30-6.00 o'clock and I have to wake up at 4.30 in the morning just to catch the bus here.

One participant at the Queensland site and two at the South Australian site indicated that they should have been informed of the work hours prior to application.

Meta-theme 5: Longevity of Employment

This meta-theme encompasses autistic employee responses to being asked if they thought they would work at the piggery in two years. Most participants responded that they thought they would, with one suggesting it was the best job they had had. Another stated:

It's actually nice to have someone that understands you and that can learn to accept you so at this stage I can't see any reason for leaving.

Regardless of intention to stay, rationale given for potential discontinuation of employment were varied and included: if there was change in workplace attitude; personal injury; a family member being unwell; not liking pigs; workplace stress; and, being away from family.

Elements	Enabling Aspects	Limiting Aspects
Recruitment	Provision of options for application completion Removal of interview as part of application process Multiple advertising methods	Necessity for support to complete application
Training and Orientation Weeks	Opportunity to: <ul style="list-style-type: none"> ▪ self-assess suitability ▪ learn some of the basics of production ▪ demonstrate strengths and weaknesses 	Work hour requirements not addressed in training weeks
Mentors	Supportive relationship Teaching of new skills	Communication problems with mentors
Work Environment	Positive atmosphere and experience with colleagues	
Other		Inflexible work schedules e.g. long hours

Co-Workers, Mentors, Supervisors and Managers

Survey Data

Analysis of data, with negative scores indicating change to more negative attitude, showed a significant difference in attitudes towards workers with disabilities at pre- and post-employment of the autistic candidates, for (a) co-workers and (b) mentors and supervisors/managers. As shown in Table 5, the total scores indicated co-workers' attitudes were more positive post-employment of the autistic candidates, with mentors' and supervisors' attitudes becoming more negative.

Analysis of the items, as also shown in Table 5, indicated co-workers adopted a more positive attitude that, with regard to people with disabilities: employers have time and resources to spend on them; the work environment is a place for them; they 'catch on' and follow direction; and, are doing better than anticipated. Further, they indicated more positive attitude that employers should meet the applicant before deciding to work with them, and if something goes wrong it is not necessarily the fault of the employee with a disability.

In contrast, mentor and supervisor data indicated no statistically significant increased positivity in attitude. Rather, this group indicated more strongly at post-employment that employers were concerned about working with the person with a disability after the employment specialist leaves, and that workers with disabilities are not getting the job done.

Table 5: Co-workers, Mentors and Supervisors Attitudes to Workers with Disabilities

Items	Total score	Co-workers (n=37)		Mentors and Supervisors (n=14)	
		Difference of \bar{x} (sd)	p-value	Difference of \bar{x} (sd)	p-value
		4.12 (14.99)	0.03 *	-6.76 (8.89)	0.02*
Workers with disabilities get the job done.		0.27 (1.56)	0.17	-0.77 (0.83)	0.008*
Employers need to meet the person with a disability first, before employing him/her through a special employment program for people with disabilities.		0.09 (1.26)	0.72	0.14 (0.66)	0.69
Workers with disabilities are just like everyone else.		0.09 (1.78)	0.63	-0.54 (0.78)	0.06
A business will hire anyone who meets its employment standards.		-0.18 (1.82)	0.63	-0.31 (0.48)	0.13
Workers with disabilities are nervous about being alone (without the job coach or human service worker).		0.03 (1.61)	0.86	0.46 (2.07)	0.43
People with disabilities won't be able to meet the production standards.		0.31 (1.68)	0.86	-0.92 (1.50)	0.07
Everyone ought to have the opportunity to work.		0.31 (1.68)	0.24	0.00 (0.55)	1.00
Employers are concerned about the absenteeism of workers with disabilities.		-0.22 (2.09)	0.44	-0.23 (0.60)	0.38
People with disabilities should have to compete for an interview like everyone else.		-0.22 (1.79)	0.53	0.62 (1.33)	0.19
Employers don't have the time or resources to spend on a person with a disability.		0.57 (1.48)	0.02*	0.00 (0.82)	1.00
Businesses wouldn't employ someone with a disability if their pay wasn't subsidised by the government.		-0.15(1.92)	0.74	-0.38 (1.45)	0.29
Employers are concerned about working with the person with a disability after the employment specialist leaves.		0.40 (1.97)	0.26	-0.69 (0.75)	0.02*
The work environment is no place for people with disabilities.		0.82 (1.68)	0.04*	-0.46 (1.81)	0.44
People with disabilities deserve the same opportunities as everyone else.		-0.29 (1.24)	0.29	-0.46 (0.66)	0.06
The workers with disabilities don't catch on and can't follow directions.		0.49 (1.65)	0.03*	0.00 (1.29)	0.06
Employers feel that they would have to monitor an employee with a disability continuously.		-0.03 (2.04)	0.90	0.14 (1.35)	0.80
Sometimes the workers with disabilities require more time than expected.		-0.11 (1.68)	0.72	-0.15 (0.90)	0.77
If something goes wrong, or is done wrong, it probably is the fault of the employee with a disability.		0.34 (1.19)	0.04*	-0.31 (0.63)	0.25
Some businesses don't have positions appropriate for people with disabilities.		-0.09 (1.84)	0.54	-0.08 (1.00)	1.00
People with disabilities won't be able to get along with other people on the job.		0.41 (1.43)	0.16	-0.23 (0.83)	0.53
Workers with disabilities are doing better than anticipated.		0.85 (1.71)	0.003*	-1.00 (1.58)	0.07
Employers would like to meet the applicant before deciding whether or not to work with a person with a disability.		0.65 (1.82)	0.04*	-0.15 (0.69)	0.75
It would be too stressful for a person with a disability to try to earn a wage.		0.15 (1.65)	0.59	-0.08 (0.79)	1.00
Employees with disabilities have a positive influence on employees without disabilities.		0.32 (2.01)	0.32	-0.77 (1.17)	0.06
People with disabilities should have the chance to work.		-0.29 (1.78)	0.51	-0.38 (0.65)	0.13

Note: negative scores indicate change to more negative attitude

* denotes significant difference at the 0.05 level

Data from the Societal Attitudes Towards Autism (SATA) scale, which measures attitudes towards autism, indicated no change in attitude. Specifically, no items nor total score showed a statistically significant difference in mean scores between pre- and post-employment, as shown in Appendix B. Similarly, analysis of self-efficacy survey data from mentors and supervisors showed no statistical significant enhancement of self-efficacy elements between pre- and post-employment. Results of this survey are also shown in Appendix B.

Interview and Focus Group Data

Following analysis procedures detailed in section 4, six meta-themes and seven sub-themes were established in the Mentors and supervisors/managers group, as shown in Table 6. The meta-themes and associated sub-themes are described sequentially

Table 6: Interviews and Focus Groups with Mentors and Supervisors/Managers: Meta-themes and Sub-themes

Meta-theme	Sub- theme
1. Employee Training and Selection	
2. Mentors	1. Role Perception and Expectations 2. Relationship and Match 3. Training 4. Ongoing Support
3. Co-worker Attitudes	
4. Advantages	1. Improved Morale and Culture 2. Opportunity for Autistic Employees 3. Production and the Organisation
5. Workplace Adaptations	
6. Longevity of Employment	

Meta-theme 1: Employee Training and Selection

This theme encompasses discussion related to the training and orientation weeks for candidates, and specifically whether participants thought this process had led to employing ‘the right’ candidates.

With regard to the **training** itself, a number of mentors and supervisors/managers indicated the training as sufficient. Some suggested it as advantageous, allowing for candidates to get a ‘taste for the job’ and consider whether the job was suitable for them - with respect to elements such as the sensory experience.

In relation to **candidate selection**, it was indicated by a number of participants that the two weeks of training was appropriate to determine what section or unit the candidates were suited to, and/or what section or unit the candidates liked. In contrast, some suggested it was not long enough to enable assessment of the candidate's ability to work. Specifically, assessment of their stamina, speed and ability to work for a greater number of hours per day and days per week. As stated:

Maybe a little bit longer before you hire them to see how they deal with things - can they go fast or not.

It was highlighted that assessing ability for those who had not worked in a piggery takes a long time as it is 'a learning process', with people on the spectrum potentially taking longer to learn the tasks. A manager from the South Australian site indicated that the support needs of candidates outside of the work environment, and co-morbid conditions, should also be identified through recruitment and considered in the selection process. As suggested, this would enable the provision of appropriate support within and external to the organisation.

Meta-theme 2: Mentors

The theme 'mentors' consists of dialogue related to mentorship and the mentor's relationship with the autistic employees. Discussion focused on: the mentor's role and their expectations for mentees (sub-theme 1); the mentor-mentee relationship and match between them (sub-theme 2); training for mentors (sub-theme 3); and, the need for ongoing support for mentors (sub-theme 4).

Sub-theme 1: Role Perception and Expectations

Mentors discussed what they considered their role as mentor to be and/or the most important thing they did as a mentor. There was a high degree of diversity which included: 'teaching our daily routine'; 'be their friend'; 'challenging' them so they can learn; 'not forcing them to learn'; and, 'explaining- not bossing them around'. This diversity may be a result of individualisation – that is mentorship practices based on the needs of the employees.

Likewise, there was diversity in terms of mentor's expectations of their mentees. A number of participants, the majority of whom were from the Queensland site, indicated frustration with their mentee not performing tasks at a fast enough pace, or not undertaking a variety of tasks. Participants from the South Australian site, however, did not typically express this – rather, indicated that expectations were tempered to match the cohort or the individual. To illustrate further:

The biggest struggle I had was that I kept expecting to make him/her as good as everybody else - that that was our target - but someone said 'he/she is autistic, that's not what we've got them here for. They are here to help and it is good for them'.

Sub-theme 2: Relationship and Match

For those who discussed the relationship between the mentees and mentors, the majority signified this as positive. Mentors described this as being 'like a friend', 'a confidant', an 'equal' and 'trusting'.

I think he/she is treating me like a friend already.

Many spoke of how they talk about outside of work activities and events, shared interests or the specific interests of the mentee. A small number, however, indicated a breakdown in the relationship – specifically related to: mentee reluctance to follow instruction and improve; mentee reluctance to give new tasks a go; and mentors feeling stressed with tasks they need to complete. Further verbatim, however, suggested this as related to expectations of mentees (see sub-theme 1).

Mentee-mentor match was discussed directly with a number of supervisors/managers in South Australia. It was suggested that at this site, mentors and mentees were matched mainly on the characteristics of potential friendship and 'like-mindedness'. It was identified though that their ability to work together and whether the mentor is 'going to stay with that candidate to do the jobs' should have been considered. The outcome of which was 'moving participants or mentors around'.

Sub-theme 3: Training

Training provided for mentors included a whole-of-staff general information session about autism, an information session about mentees' strengths and support needs, and tips for working with autistic employees. The majority of the participants indicated the training as inadequate and some mentors suggested that the information focused too much on negative aspects of autism. It was also suggested that the training provided 'just an overview', was 'too general' and did not have enough depth to aid them in understanding autism or prepare for their role. To highlight, it was said:

An instant buddy (mentor) - we are not that prepared, we are put on the spot. Your buddy (mentee) so take care of them. Here is a bit about how autism works and that is it.

In contrast, one manager from the Queensland site indicated the mentors as adequately prepared, however, identified the barrier to effective engagement as 'patience' with the employee and lack of capacity to engage with their mentee during peak production times.

With further regard to the training, it was indicated that - at the South Australian site - training attended by mentors and mentees impacted other staff as they had to complete the tasks of those undergoing training. Further, that the whole-of-staff information session was not conducive to asking questions. In addition, a number of mentors in South Australia identified being 'concerned', 'fearful', 'scared' and 'nervous' post-training due to the depiction of autism. All of these participants indicated they felt differently after meeting the candidates.

It scared a lot of people, it was about how autistic people have meltdowns and most people were concerned about it. After they met them they realised 'what are we worried about!'

Sub-theme 4: Ongoing Support

The need for ongoing support was highlighted by many participants. It was acknowledged that support by autism specialists and others was provided in the beginning of the Program. However, participants unequivocally indicated this support was needed for a greater period of time to: help interpret behaviour and 'problem solve'; 'give us advice'; provide 'reassurance' for mentors; and, give mentors feedback as to 'what they are doing well and what they could do better'.

Participants from the South Australian site additionally indicated that in the provision of ongoing support, the specialised person should know the employees to allow for specific, rather than general, advice and suggestions.

...so after 5 months I can walk in and say I am having this problem and someone internal whose job it was to manage their work lives and home lives and they know them thoroughly they could give us advice as well as their home life.

Meta-theme 3: Co-worker Attitudes

The meta-theme Co-worker Attitudes groups together discussion around the attitudes of staff to the autistic employees. Participants from the South Australian site indicated positive co-worker attitudes towards the autistic employees.

They have been accepting, really accepting and really do look out for them.

This was not reflected in interviews at the Queensland site. A small number of mentors at this site espoused some co-workers had negative attitudes and made fun of autistic employees because 'they are doing little crazy things'. Interview data indicated negative attitudes were related to perceived reduce work capacity of the autistic employees.

We all have physical jobs and if someone is not finishing their work we are picking up the jobs they are not doing... it impacts the attitudes.

Mentors, however, indicated that these negative attitudes could be amended through further education of co-workers.

Meta-theme 4: Advantages

This meta-theme incorporates dialogue elicited in response to questioning regarding advantages of the Program. Discussion related to enhanced morale and work culture (sub-theme 1); the provision of opportunity for autistic people (sub-theme 2); and, benefits to production and the organisation (sub-theme 3).

Sub-theme 1: Improved Morale and Culture

Participants at the South Australian site indicated the Program as having led to an increase in morale, culture and pride to be associated with the organisation. Specifically, it was indicated that there was; a 'culture change - being more tolerant of people'; 'improved morale of the other staff around – it makes them feel good about themselves'; and, 'a lot of company pride now – the people swell with pride being associated with it'. Further, that 'people talk to each other around here more civilly now', has 'forced people to think outside their boxes and think about someone else and their wellbeing' and that it has:

Taught people to assess the individual more, so we are more attuned to people day to day. If someone is having a bad day we won't expect them to perform the way they usually would.

Sub-theme 2: Opportunity for Autistic Employees

When asked about advantages of the Program, a number of participants from the Queensland site indicated this as including accessibility of work for the autistic employees. As stated:

It is an advantage for them because they can be teached (sic) and involved in a normal life.

Sub-theme 3: Production and the Organisation

Supervisors/managers at the Queensland site espoused benefits to production. The benefits to production were identified as related to the skill set of the autistic employees, including 'attention to detail', memory recall and 'consistency' in practice. To highlight, it was said:

He/she actually sets the standards for the other staff members to match in consistency, attention to detail, being on the job on time, completing the job on time. That is a benefit to me and a benefit to the business.

The organisational benefits indicated by supervisors/managers related to improved training practices. Participants at the Queensland site indicated further benefits as the creation of accessible training materials, dedicated time for training and consideration to infrastructure. To highlight:

We also set aside time to do training which we didn't before - so that is a benefit for the whole company. We also looked at infrastructure, the ways showers are and we built the big office at Com Sow and all of this came from this Program because it is for every staff member.

Additional organisational benefits espoused by South Australian employees were related to the autistic employees as being loyal to employers, not 'having sick days' and doing it exactly how you want it done'. Further, that the Program promotes staff-management interaction by having 'allowed the manager to wander around and tell them how proud of them he is'.

Meta-theme 5: Workplace Adaptations

Interviewees were asked what adaptations and changes that had been made in the workplace. A number indicated that they did not amend or alter their practice in working with the autistic employees. Those that did, however, discussed adaptation with relation to communication, tasks and instructions. Accordingly, it was suggested they: 'give basic instructions'; 'make sure you

explain yourself'; and, communicate based on the needs of the employee. Other examples of adaptations were to: 'give a lot of time to read instructions'; 'break the training down into smaller portions'; and reduce the number of tasks - only adding more when mastered. As said:

We have created him/her little specific jobs and (he/she) will do them and over time we will start adding jobs in once (he/she) is really comfortable - we will bring them in slowly with her buddy.

A number of participants indicated that they aim to provide routine, suggesting however that this is not always feasible as 'at the end of the day there is unpredictable (sic)'. A Queensland manager indicated the biggest adaptation as improved accessibility of work instructions and provision of training suitable to varied learning styles.

We don't read the work instruction like we used to, they can if they want to and learn that way, but I verbally tell, practically show and work with them. That's probably the biggest change.

Meta-theme 6: Longevity of Employment

This theme incorporates discussion elicited in response to questioning regarding barriers to employment longevity for autistic employees. There was diversity between sites, with South Australian employees indicating outside of work issues, including desire to live closer to family, and repetitiveness of task to be barriers. In contrast, mentors and supervisors/managers at the Queensland site indicated employee attitude, including commitment to work, as a barrier.

The biggest barrier we have seen here is personal attitude- it is not related to autism. An unwillingness to try and improve yourself...

Lack of stamina in the autistic employees was also suggested by Queensland mentors as a barrier to long term employment.

Summary of Results

Summary of the key enabling and limiting aspects identified through data collection with co-workers, mentors and supervisors/managers is shown in Table 7. These, and associated recommendations, are discussed in sections 6 and 7 of this report.

Table 7: Co-workers, Mentors and Supervisors/Managers - Summary of Enabling and Limiting Aspects

Elements	Enabling Aspects	Limiting Aspects
Candidate Training and Selection	<ul style="list-style-type: none"> Training allowed for: <ul style="list-style-type: none"> candidate/job match candidate self-assessment of suitability 	<ul style="list-style-type: none"> Training weeks not sufficient to assess candidate stamina, speed or ability to work Support needs outside of work environment and co-morbid conditions not identified
Training for Staff	<ul style="list-style-type: none"> Basic knowledge of autism 	<ul style="list-style-type: none"> Format not conducive to questions Brevity and generality Focus on negative aspects and homogenous presentation of autism
Mentors	<ul style="list-style-type: none"> Positive relationship Realistic expectations of autistic employees Compatibility of mentors-mentees considered Capacity to adapt communication, tasks, training and work instructions 	<ul style="list-style-type: none"> Mentor role and expectations of candidates not sufficiently defined – potentially impacting mentor-mentee relationship Ability to work together not considered Capacity to engage during peak production times
Work Environment	<ul style="list-style-type: none"> Co-worker attitudes to workers with disabilities Co-worker attitudes to autistic employees 	<ul style="list-style-type: none"> Mentor/supervisor attitudes to workers with disabilities Co-worker attitudes to autistic employees where there was perception of reduced work performance Unpredictability of production
Other	<ul style="list-style-type: none"> Espoused advantages of the Program Support from autism specialists and others at outset of Program 	<ul style="list-style-type: none"> Perceived attitudes of autistic employees Longevity of support provided Ongoing support personnel knowledge of individual autistic employees

Unsuccessful Candidates

Surveys were completed by four unsuccessful candidates. Descriptive statistics of employment process and self-efficacy items showed a wide degree of opinion with little to no commonality amongst participants. Accordingly, the results do not contribute significantly to the research questions and are shown in Appendix C.

Parents/Carers of Autistic Employees

Using analysis processes detailed in section 4 of this report, the data revealed seven meta-themes and four sub-themes, as shown in Table 8.

Table 8: Interviews with Parents/Carers of Autistic Employees

Meta-theme	Sub- theme
1. The Recruitment and Application Process	
2. Orientation and Training Weeks	1. Beneficial and Job-Skills Matching 2. Needing Individualisation
3. Mentors	1. Helping and Teaching 2. Relationship with Mentor
4. Relocation, Housing and Support	
5. Communication with Parents	
6. Longevity of Employment	
7. Views on the Program	

Meta-theme 1: The Recruitment and Application Process

This theme incorporates discussion elicited in response to questioning regarding the application and recruitment process. Most participants indicated that they helped the candidate with completing the application, with one participant indicating their child’s teacher helped. Utilisation of a process that allowed for assistance to be given was considered advantageous as parents could help with ‘the driving of it’. Further, bypassing the formal interview process was considered appropriate as ‘it was hands on so he/she could show them what he/she could do.’

Having an autism specific recruitment organisation was identified as enabling by one family. It was stated that having ‘*an understanding person at the other end who understands the person who was applying*’ was significant as in the past ‘*it was difficult- in the way he/she presented*’. However, in discussing the process, two participants indicated a breakdown in communication with the recruitment organisation. One indicated lack of communication meant they had to cancel their child’s flights; the other stated:

The week before you have to go on the course, I rang them and they said “I’m glad you rang us because we haven’t heard from you”- I didn’t know I needed to give confirmation.

Unique to parents/carers of South Australian employees, however, was the suggestion that the waiting period between application and starting employment – identified as being December to March – was ‘stressful’ for autistic candidates.

Meta-theme 2: Orientation and Training Weeks

This theme groups together dialogue related to the orientation week and two training weeks. This was discussed as being beneficial and facilitative of job-skills matching (sub-theme 1), while potentially limiting due to non-individualisation (sub-theme 2).

Sub-theme 1: Beneficial and Job-Skills Matching

A number of participants considered the weeks as being beneficial as it allowed candidates to 'present' themselves in an understanding environment. However, one parent from South Australia indicated that their child felt it was like a 'two week interview in terms of trying to do his/her best and waiting to see if it was good enough.'

It was also indicated that the orientation and training weeks were 'enjoyable' and significant to appropriate job-skills matching. The employee-job matching was perceived as being enabled by the responsiveness to the candidates and flexibility in terms of placement within the piggeries.

They were able to identify which candidates would cope where - they were responsive to what people were and weren't coping with... it has been fantastic.

I think it is good that they didn't say "well that didn't work so off you go"- they tried to find the fit for him/her and they have done that.

Sub-theme 2: Needing Individualisation

Two participants, in reference to the South Australian site, indicated that the training required more individualisation. Specifically, it was suggested that for one candidate that the group format for training was not sufficient and that they personally had to work with the candidate 'one-on-one to reassure him/her and let him/her know what he/she was doing was correct'. Another parent/carer also indicated that with regard to the training, 'a lot of it was repetitive of stuff he/she had been taught' through previous experience and learnings.

Meta-theme 3: Mentors

This meta-theme includes discourse concerning mentors. The majority of participants indicated the mentor-mentee system as beneficial, with descriptors including 'valuable' and 'supportive'. Specific aspects included the mentors 'progressing the employee's skillset' and employees 'enjoying the direction from someone who knows what they are doing'.

It is better than the way they were teaching him/her at school. He/she has learned more than at school in the last 5 years!

The match between mentors and employees was identified as facilitative, however, South Australian parents/carers indicated increased training in working with people on the spectrum, and knowledge of autism, as important for the mentors.

Meta-theme 4: Relocation, Housing and Support

This theme incorporates discussion elicited in response to questioning regarding living arrangements, as a number of employees relocated inter- and intra-state. With regard to relocation, the majority of the employees that were assisted by SunPork discussed ease in transition due to support provided. As stated:

No- I think (the relocation) was more difficult for me! It is the best thing that ever could have happened and I can't thank SunPork enough. The support systems at work and at home are in place and working brilliantly.

The smoothest transition we could have hoped for because it is the first time he/she has lived away from home. Because SunPork were so proactive in settling him/her it made everything so much easier.

Two parents of employees living in shared accommodation indicated minor issues, specifically with regard to collective arrangements and goods, such as 'sharing WiFi' and 'not having a TV that works properly'. However, it was also indicated that external support was being provided by SunPork.

Meta-theme 5: Communication with Parents

This theme groups together dialogue related to parental/carer communication with SunPork staff. A number of parents indicated they had had phone conversations with staff members working with their child, both mentors and management. However, a number of parent/carers of Queensland employees indicated they would like more communication.

When I rang one of the bosses the other day and he said "do you need anything from me" and I said, "I've actually got nothing from you guys, I'd like to hear something from you guys occasionally".

Meta-theme 6: Longevity of Employment

This meta-theme includes discourse elicited in response to questioning about long-term employment. All parents/carers indicated the employees as having longevity in piggery employment. However, two parents/carers identified a potential barrier as related to compliance with policy.

We had him/her come to visit for a weekend but hasn't given enough notice to his/her supervisor... he/she continually needs help in that area.

He/she was a little bummed out because he/she got a written warning because he/she didn't notify them he/she (was injured).

Potential barriers identified by parents/carers of South Australian employees related to colleagues lack of understanding of autism, and their son/daughter not being 'able to manage full time'.

Meta-theme 7: Views on the Program

This theme encompasses parent/carer thoughts on the Program. Those that provided these indicated it as positive and 'life changing' in various ways, including having given them a friendship group/ social life and aiding them in learning life skills related to living independently – such as cooking, cleaning and using public transport. As also expressed by parents/carers:

he/she just went from being quite depressed... it has really changed his/her life!

It has been the making of him/her, he/she left a boy/girl and he/she is now a man/woman.

He/She had been applying for jobs for years ... having the job is the best thing that has happened to him/her in a long long time and we are very happy about it.

Summary of Results

Summary of the key enabling and limiting aspects, as garnered from interviews conducted with parents/carers of autistic employees, is shown in Table 9. The subsequent sections of this report provide discussion of these results and related recommendations.

Table 9: Parents/Carers - Summary of Enabling and Limiting Aspects

Elements	Enabling Aspects	Limiting Aspects
Recruitment	<ul style="list-style-type: none"> ▪ Process allowed parents/carers to support application completion ▪ Removal of interview as part of application process ▪ Autism specific recruitment organisation 	<ul style="list-style-type: none"> ▪ Communication with recruitment organisation
Training and Orientation Weeks	<ul style="list-style-type: none"> ▪ Job-skills matching ▪ Responsiveness to needs/ desires and flexibility in placement ▪ Allow candidates to 'present' in understanding environment 	<ul style="list-style-type: none"> ▪ Individualisation in training
Selection Process		<ul style="list-style-type: none"> ▪ Waiting period between selection and employment commencement ▪ Clarity around selection process
Mentors	<ul style="list-style-type: none"> ▪ Supportive relationship 	<ul style="list-style-type: none"> ▪ Training regarding autism and working with autistic employees
Other	<ul style="list-style-type: none"> ▪ Support for relocation ▪ Positive views of the Program 	<ul style="list-style-type: none"> ▪ Communication with parents ▪ Clarity regarding policy compliance ▪ Flexibility with work schedule

7. Discussion

The discussion is structured in accordance with the four research questions guiding the evaluation of the Program. First, the aspects that limit or enable autistic employment are discussed, followed by change in co-worker attitudes. Barriers and enablers of autistic employee longevity are then identified, followed by perceived advantages of the Program.

Limiting and Enabling Program Elements

Overall the majority of the participants highlighted the Program as largely successful. Autistic employees, their families/carers and other employees identified social, organisational and economic benefits derived from the Program. Family/carers additionally perceived the employer as supportive, engaged and motivated.

The recruitment process was considered ‘autism friendly’ and a prominent enabler. The traditional job interview is a well-known obstacle for employment for autistic adults (Chen et al., 2015). It was noted that a number of candidates needed assistance to complete the two-part application process – indicating this as potentially limiting recruitment pools. The fact that the selection process involved opportunity for the job-seekers to show what they could do instead of participating in an interview was one of the main enablers.

The training weeks were mostly perceived as being helpful and meaningful, providing the applicant with opportunities to experience what the job would comprise. Additionally, enabling the employer the opportunity to assess applicants and applicant/job match. A good employee/job match is regarded as crucial for a successful employment outcome (Chen et al., 2015; Hendricks, 2010). A more individualised assessment of the autistic employees’ preferences and strengths in relation to the available tasks might have improved and expedited the matching.

Further, having good knowledge of the employees’ strengths, challenges and learning style can enable collaboration between mentor/supervisors and employees, and enable mentors to individualise training – the literature indicating autistic employees often benefit from structured and well defined work tasks (Hendricks, 2010). Involving mentors as early as possible in the training for the autistic job seekers and interviewing parents/carers, if the applicant consents, may support the employer in obtaining this knowledge.

There was an identified lack of clarity regarding the assessment process and expectations. With regard to the assessment process, the autistic employees did not discuss an assessment process in interviews, nor the process leading to them from training into employment. Although the assessment of potential employees' suitability for the job was informal, it would be beneficial to consider if the process could be made more transparent to the job seekers.

In relation to expectations, it was identified that there were discrepancies in mentor's expectations for the autistic employees. Specifically, some mentors identified the goal was for their mentee to work fulltime, perform the variety of tasks that co-workers fulfil and at a matched pace. However, other mentors did not have these expectations.

Employers' and co-workers' attitudes are a vital aspect of the work environment and hence, can be either a crucial barrier or a powerful enabler for a successful employment outcome. Workplace attitudes will ultimately determine if the employment is going to be sustained (Chen et al., 2015). The autistic employees in the Program mostly perceived the atmosphere as positive and friendly. Assignment of mentors was perceived as a key facilitator for success in the workplace, and a potential contributor to perceived positive atmosphere. However, the match between mentor and mentee was indicated as needing to include both personality match and ability to work together on tasks.

The mentors and supervisors/managers indicated that it was helpful to be provided with information about autism prior to the autistic employees being introduced in the workplace. However, the information included in the workshop was considered too general and focused on negative aspects of autism, such as 'meltdowns'. Suggestions to improve the workshop would be to emphasise the heterogeneity of autism. The information could be more focused on providing mentors and supervisors/managers with strategies for how to assess the employees' learning style and how to adapt their communication. This may have enabled them to provide more efficient instructions and further enhance social inclusion in the workplace. Preventing misunderstandings due to the employees' challenges in social communication is important as these difficulties are well-known for creating barriers for autistic employees (Chen et al., 2015). Effective mentors and supervisors/managers also need to be able to assess when support is needed, what kind of support to implement and when to withdraw it. Hence, practical strategies for effective support, defusing stressful situations and problem solving should be included in the training. Previous research has highlighted the lack of evidence in regard to what kind of workplace training is effective (Sarrett, 2017). However, knowledge needs to be reinforced with some consistency and the current literature indicates that continuous support is needed both for the autistic employee and for the mentors (Chen et al., 2015; Hagner & Cooney, 2005; Hendricks, 2010). It has been

suggested that more than four hours training, divided into several sessions might be more effective than one long information session (Sarrett, 2017). Further, these sessions should preferably be developed and implemented in collaboration with someone on the autism spectrum (Sarrett, 2017), as done in this Program. On-the-job mentors that are adequately trained and supported can facilitate not only work performance but also social inclusion for autistic employees (Markel & Elia, 2016). Hence, it is cost effective to invest in education/support that fully equips the mentors to fulfil their role. Collaboration with an external disability employment provider or equivalent service provider with expertise in autism would be ideal. However, support can be provided in various forms and in addition to external support, internal support structures may be developed - for example time for mentors to meet and support each other and regular feedback/recognition from management.

The results from the attitudes questionnaires included in the evaluation need to be interpreted with caution due to the relatively low number of participants. The decrease in the Scale of Attitudes Towards Workers with Disabilities (SATWD) for mentors/supervisors post-employment of the autistic employees may be indicative of this group feeling under-equipped, as expressed in the interviews/focus groups, or unclear of expectations. Significant changes on a number of items in this scale would indicate mentors'/supervisors' perception that they needed more support, as these items relate to 'workers with disability not getting the job done', and 'concerns after the employment specialist leaves'. However, it should be emphasised that many mentors and supervisors/managers appreciated the opportunity to take on this added responsibility and to learn more about autism. There was pride of being part of "doing something good". However, as mentioned, the mentor role is considered as one of the key factors for successful employment, and the evaluation indicated that the mentors were somewhat unclear about the responsibilities and expectations associated with this role. Clarification in regard to this could therefore be an effective improvement of the Program.

The current Program is ambitious in regard to the number of autistic people employed at the same time. This appeared to have added some strain on the mentors and supervisors/managers. In this regard, it may be advantageous to onboard autistic employees in stages, or give more consideration of the support needs of candidates and workplace capacity. In addition, unclear expectations of the autistic employees were reported as a potential source of frustration, both among mentors and co-workers. Clear communication of work expectations has been described as a successful strategy in regard to employment of autistic adults (Scott et al., 2015). It would be beneficial to clarify if the autistic employee is expected to take on the role of a non-autistic employee, or expected to find "a niche" in which he/she can excel and, hence, free time from co-

workers who do not have to do these “niched” work tasks. The expectations can differ from employee to employee but clarification hereabout would reduce stress within the work team. One approach that could be adopted might be that everybody in the team does not do all tasks, but together the team needs to be able to complete all tasks.

Workplace modifications are repeatedly quoted as a success factor for employment in autism (Chen et al., 2015; Hagner & Cooney, 2005; Hendricks, 2010; Hill, 2014; Kenyon, 2015). Of interest, many of the mentors and supervisors/managers initially stated that they did not implement any adaptations except for the initial amendments of work instructions and training for new employees. However, after prompting, several mentors and supervisors/managers reflected that they actually adapted the way they communicated, instructed and interacted with the autistic employees. The fact that some mentors to a large degree were unaware of using successful adapted strategies indicated that this knowledge was implicit, i.e., more intuitive than explicit (Eraut, 2000). However, implicit knowledge is not easily transferred to someone else. Creating a forum where through discussion, preferably mediated by someone experienced in autism, mentors/supervisors can develop an explicit understanding of what they are doing that is supportive and why it works. This will allow for knowledge transfer within the company.

The use of visual aids was very briefly discussed as part of workplace adaptations. It would be useful to include the usage of, and advantages of, visual support in the mentor training. It is common to consider ‘telling someone to do’ as more effective than providing visual support when inexperienced in working with individuals with autism. However, this may have a negative impact on the employee’s ability to develop independence.

Co-Worker Attitude Change

The current evaluation can only draw very cautious conclusions as to whether co-worker attitudes towards people with disabilities and autism changed post-employment of people on the spectrum, due to a small sample size. Generally, it appeared that both co-workers and mentors/supervisors were relatively positive in regard to their attitudes towards autism and workers with disabilities prior to the employment of the autistic candidates. Attitudes to autism did not change, with co-workers’ attitudes to workers with disability remaining the same. Mentors/supervisors attitudes towards workers with disabilities became more negative (see previous section for discussion).

Barriers and Enablers of Longevity of Employment

The identified enablers of autistic employee longevity of employment within the Program align with the previously discussed enablers for employment. With regard to barriers, both employees and mentors/supervisors identified factors outside of the employer's control as potentially impacting on the decision to continue in the work. These included injuries/illness of the employee and/or his family.

Living independently was perceived as a challenge for several of the autistic employees and as such, a desire to be closer to the support network of a family may impact on longevity. This provides rationale for the expressed importance of providing support for independent living. Collaboration between support services and the employer was stated as beneficial in that it would provide a more holistic approach to support. However, such collaboration would involve exchange of information and would need to be arranged with the approval of the employees. The same conditions apply for collaboration between the employer and the autistic employee's parents/significant other/s - as some parents expressed desire to receive more information on the employees' work situation in order to provide support if needed.

Workplace stress was also mentioned as a potential barrier. Several employees mentioned that the work was physically challenging and involving long hours. A lack of flexibility around alteration of hours was mentioned as an issue that might cause employees to cease their employment. It is known that autistic employees often report high levels of stress and/or anxiety, not only due to work tasks but also due to the strain caused by trying to fit into the social work environment (Hendricks, 2010). Both psychological and physical demands may therefore become a barrier to long term employment.

Mentors/supervisors in the Queensland site indicated employee related factors, such as poor attitudes and lack of work commitment, as barriers to long-term employment. This may be a result of lack of clarity regarding expectation of autistic employees, as previously discussed. However, it may also be an indication of a lack of knowledge and understanding of autism, something that can be addressed by providing more information and support.

Program Advantages

Mentors/supervisors and autistic employees identified an advantage as providing job opportunities for autistic adults in industries outside of the information technology (IT) sector. Additionally, that workplace morale and culture, and the tolerance of co-workers in general had increased – this is

consistent with the literature in a range of industries (Scott et al., 2017). Some mentors/supervisors recognised that the autistic employees' skill set improved production, which is in-line with other employers reporting that autistic employees can perform superior to non-autistic employees if the person/job match is right (Scott et al., 2017). The necessity to scrutinise training material and routines in preparation for the autistic employees also resulted in changes that were beneficial for all employees.

8. Key Components and Recommendations

The following have been identified as key components of the Program and suggestions/recommendations for future Program delivery. A number of these components were identified and adopted through the implementation of the Program, with others a result of this evaluation. Collectively, they represent the factors contributing to the successful implementation of such a program.

Recruitment Process

- Utilising a variety of job advertisement methods is necessary to target both job-seekers and their family and social networks.
- Advertisement via social media should be utilised.
- Job seekers may require assistance to complete the submission requirements. Assistance should be offered to those who may not have support people to provide this.
- Recruiting a group of autistic employees needs to be carefully considered. While convenient to recruit and train several people at the same time, there is associated stress to workplace personnel and resources.
- Expectations regarding work hours, or whether this is negotiable, should be clear to job seekers.

Training

- Autistic employees
 - Potential mentors should be included early on in the training of autistic employees.
 - The work tempo of the 'actual workplace' should be illustrated clearly within the training weeks or during recruitment.
- Mentor training
 - Autistic adults should be involved in the development and presentation of the training.
 - Adopt a strengths-based approach when informing about autism, and promote heterogeneous understandings.
 - Divide the workshops into several sessions (at least four hours all together).

- Focus on practical strategies for effective support including: training techniques; adapting to individual's learning style; provision of visual support; communication; social interaction; collaborative problem solving; and, defusing stressful situations.
- Consider the autistic employees presenting themselves via a recorded audio interview/video/written information - this could add more personal information, and promote autism understanding and individualised practices.

On-the-Job Training

- Develop an individualised structured 'on-the-job training plan' to benefit the autistic employee and the mentor. This could include the following:
 - Defining the time mentors can set aside for on-the job training – this could decrease the stress for the mentors and the co-workers.
 - Identification of specific work tasks as primary training goals and subsequent evaluation of the progress before deciding on further training goals. These goals could be documented and agreed upon by both employee and mentor, and could include increasing the tempo of the work, increasing independence and adding more tasks.
 - Expectations related to task learning and completion e.g. discussion of how fast the employee should learn the job and complete tasks.
 - Utilisation of visual supports should be explored, preferably in collaboration with an autism expert.

Mentor/Supervisor Role

- The following suggestions may contribute to clarifying the role of the mentors and enhance their abilities to fulfil this role:
 - Develop a document that clarifies mentor responsibilities and expectations.
 - Allocate time for the on-the-job training.
 - Allocate time for employee/mentor evaluation on a regular basis.
 - Consider allocating two or more mentors to one employee. This allows mentors to take turns in supporting the employee and provide a backup if one mentor is absent.

- Consider how mentors will receive continuous support. It could be arranged as a combination of: time for mentors to meet, support each other and problem solve; external support from someone experienced in autism (preferably someone that can be on-site and observe in addition to provide support/advice); and, explicit support/recognition from management.
- Consider establishing an Emergency Contact, someone for mentors to turn to in acute situations.

Work Description

- Clarification regarding the work role for each individual autistic employee, for example, expectation to specialise in a limited range of tasks. Aspects to be considered include:
- Defining tasks that the autistic employee is better at than the co-workers, or feel very comfortable doing.
- Development of a Key Performance Indices (KPI) defining what the autistic employee's work tasks are.
- Redefining the work descriptions of the co-workers in the team, so that it is clear if they are 'released' from the tasks the autistic employee does.

Longevity of Employment

- Consider flexibility in work hours and the fact that full time work is not always the goal for autistic employees.
- Implement work satisfaction evaluations and career development planning recurrently.
- Assess overall workplace knowledge of and attitudes towards autism regularly, and implement continued education.
- Provide support for mentors, and managers/supervisors.

Independent Living

- If possible, assess support needs for independent living before employees commence.
- If the autistic employee provides consent, establish channels for collaboration between support services responsible for independent living and the employer.
- Identify whether the employer will liaise with parents/carers of autistic employees, and under what conditions/circumstances, and establish consent from the employee.

9. Limitations

The current evaluation has several limitations. First and foremost, it is an evaluation of a specific employment program for autistic employees in a specific industry. It can therefore not be generalised to any employment program. However, the Program has been developed based on documented successful practices for employing autistic adults in the IT industry (Austin & Busquets, 2008; Elkjær Jensen, 2012). The results and recommendations may therefore be relevant for other employers across a range of similar industries.

Several of the measures used in the current evaluation were not validated or not frequently used in relation to employment and autism. Future research should explore the possibility to develop and validate tools that can be used as outcome measures in programs aimed at employing people on the spectrum.

The low survey response rate, especially from autistic employees, resulted in the survey data not contributing to the evaluation in a substantial way. Possible reasons for the low response rate are that the participants did not perceive them as relevant. Further, adults on the spectrum have usually been asked to complete surveys numerous times in different contexts. Hence, survey fatigue may explain why so few opted to complete the surveys. Additionally, despite being pilot tested with a reference group comprising adults with lived experience of autism and other stakeholders, the chosen measures may not have been perceived as relevant to the job seekers as the majority of the questions did not address issues that were easily identified as concrete aspects of the Program. However, the fact that the majority of the autistic employees consented to partake in the interviews indicated that they were motivated to provide feedback on the Program. Future evaluations should explore if more relevant measures could be used and how the importance of survey completion can be explained better – such as how they contribute to the development of similar programs.

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11. Appendix A

Autistic Employee Survey Results

Due to the low participation rate, only descriptive data from the pre-post surveys distributed to the autistic employees are presented. Descriptive results from the Quality of Life survey, Employee Self-Efficacy survey and the Employment Process survey are detailed sequentially below.

Quality of Life (n=3)

As shown in the figure 2, overall quality of life (n=3) was rated as consistent at pre- and post-employment for two of the participants. Participant 1 indicated decrease in overall quality of life - specifically, rating 'very good' and 'neither poor nor good' respectively for the two data collection points.

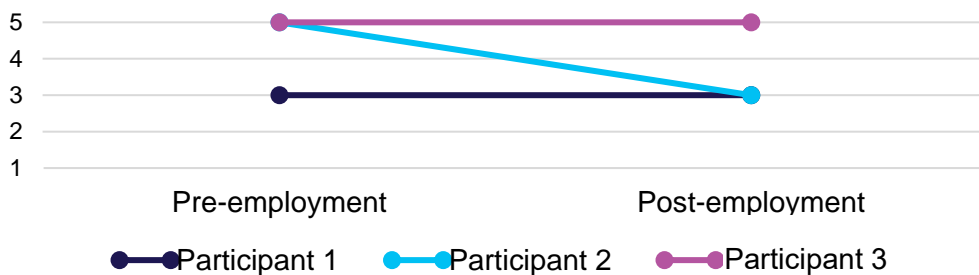


Figure 2: Autistic employee overall quality of life
Scale: 1 = very poor, 2 = poor, 3 = neither poor nor good, 4 = good, 5 = very good

In regard to the sub-section overall health satisfaction, participant 1 indicated consistent satisfaction at pre- and post-employment, with the others indicating an increase (see figure 3).

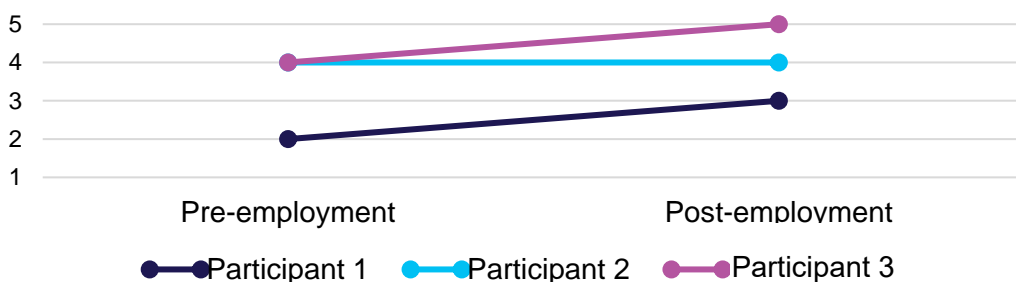


Figure 3: Autistic employee overall health satisfaction
Scale: 1=very poor, 2=poor, 3=neither poor nor good, 4=good, 5=very good

The results from the quality of life domain 'physical health', illustrated in figure 4, suggested decrease across time for the three participants. Note: scale items are not reported for specific domains as scores have been transformed using WHOQOL-BREF 0-100 methodology (World Health Organization, 2004).

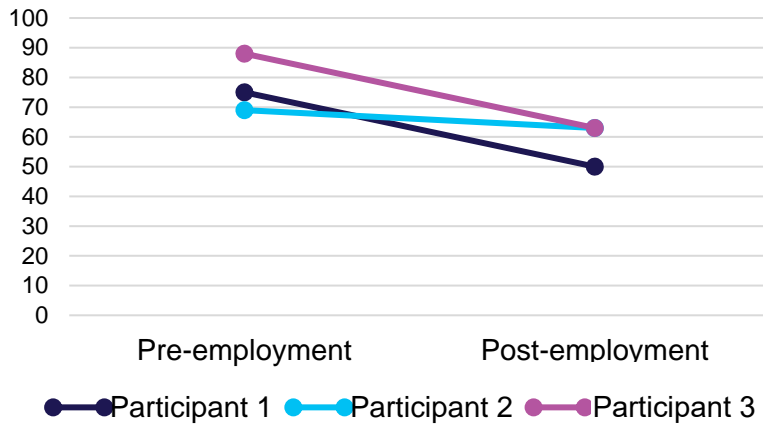


Figure 4. Autistic employee quality of life: physical health domain

As shown in figure 5, the ratings representing the psychological domain decreased for the three participants, with two of the three participants reporting lower ratings at post employment in the social relationships quality of life domain, as shown in figure 6.

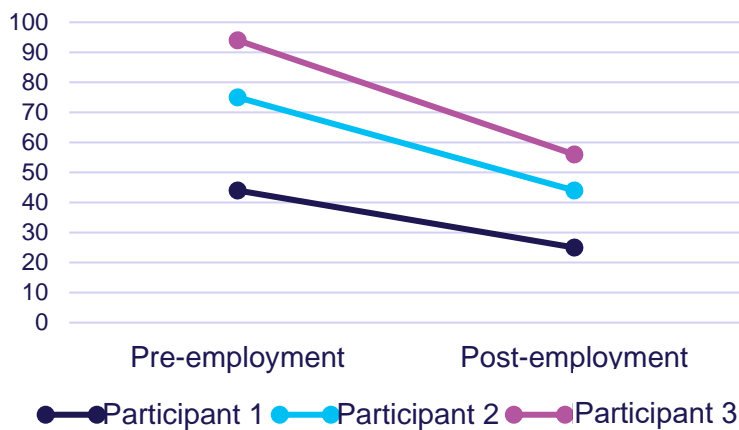


Figure 5: Autistic employee quality of life: psychological domain

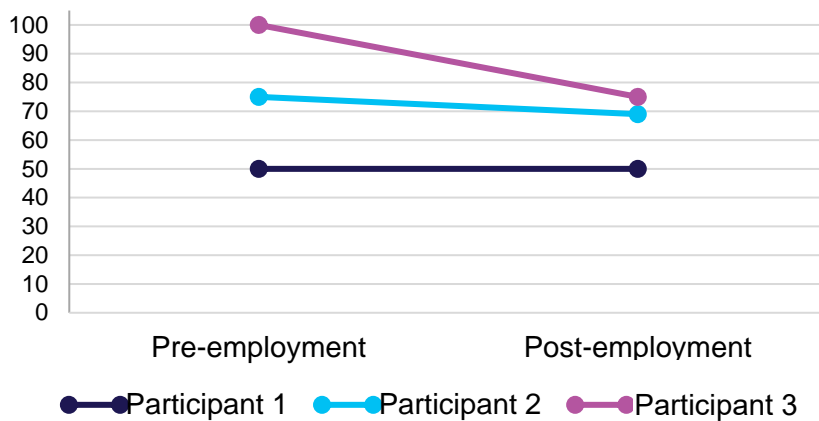


Figure 6: Autistic employee quality of life: social relationships domain

The domain of environment, which includes opportunity to acquire new information and skills, and financial resources, contrasts to other domains. As shown in figure 7, two participants showed consistency across time, with the other showing an increase. For this participant, this was the only domain which increased at post-employment.

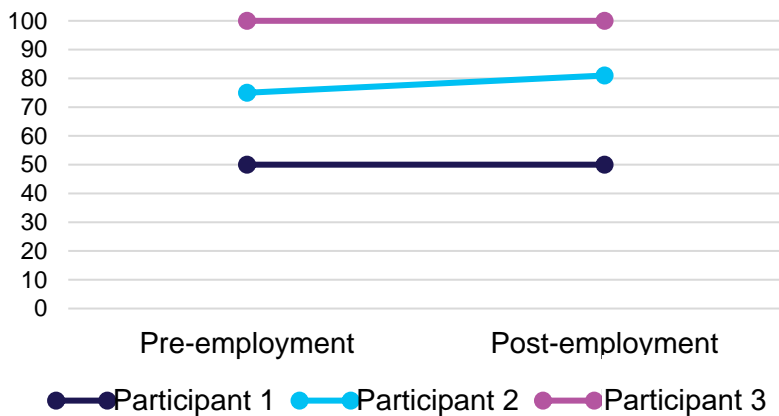


Figure 7: Autistic employee quality of life: environment domain

Employee Self-Efficacy Survey (n=4)

Overall data from the Employee Self-Efficacy survey indicated increased self-efficacy for two of the four participants, as shown in figure 8. For one participant, efficacy declined, with efficacy being consistent at pre- and post- employment for one participant.

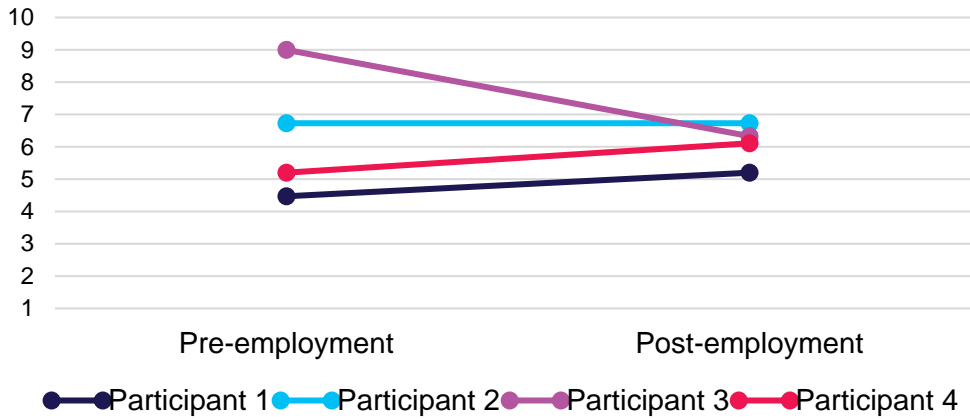


Figure 8: Autistic employee overall self-efficacy

Scale: 1 (not at all confident), 2, 3, 4, 5, 6, 7, 8, 9, 10 (completely confident)

Table 10: Autistic Employee Self-Efficacy

Scale: 1 (not at all confident), 2, 3, 4, 5, 6, 7, 8, 9, 10 (completely confident)

	Pre-employment n=4		Post-employment n=4	
	mode	min & max	mode	min & max
<i>How confident do you feel...</i>				
...applying for a job?	-	3-9	10	5-10
...that you can do well during a job trial?	-	4-10	-	6-9
...that you can perform well during the interview process without any help or support?	-	2-8	-	3-8
...that you can find employment without any help or support?	-	1-10	7	3-7
...that you can identify things that may be a challenge for you in the workplace?	6	6-10	-	4-8
...that you can tell people what you need to help you work better?	5	5-8	-	3-6
...that you can identify changes within your job that would help you do better?	6	4-9	5	5-9
...during social situations at work (such as casual chats)?	-	3-10	9	6-9
...that you can communicate with people you work with?	-	4-10	10	3-10
...that you can communicate with managers?	6	6-10	8	4-8
...that you can manage stressful and anxiety provoking situations in the workplace?	7	4-7	-	2-7
...that you can resolve conflict between you and your co-workers?	-	4-8	-	5-8
...that you can manage a conflict between you and your manager?	-	3-9	4	3-6
...that you can identify your strengths for a specific job or workplace?	10	2-10	7	4-7
...that you can tell people you work with about autism?	5	1-10	5	1-10

- denotes that no mode exists

Employment Process Survey (n=5)

Data from the Employment Process survey is shown in Table 11. With regard to the employment process itself, most participants completely agreed (Mode=10) that the employment process correctly identified, and aided them to understand, what activities they find motivating. Further, that it correctly identified what they need help with in the workplace, and their ability to listen and respond to staff.

In relation to the training and assessment process, most participants completely agreed (Mode=10) that it correctly identified suitable work hours and taught them how to get help if needed. Further, as a result of the process they were prepared to feel comfortable handling pigs and being in a farm environment. Last, most participants strongly agreed they have a job that matches their skills and interests, and that they enjoy their job.

Range scores indicated neutral to positive opinions (scores 5 to 10) with regard to the aspects of the employment process and the Program, as measured through survey, with the exception of one item. "I think I will be working in the pig industry 3 years from now" had a range score of two to ten.

Table 11: Autistic Employee- Employment Process Survey

	Both Sites n=5		Qld n=3		SA n=2	
	mode	min & max	mode	min & max	mode	min & max
<i>The employment process correctly identified.....</i>						
...my skills.	8	5-10	-	5-9	-	8-10
The employment process helped me understand what kind of activities I find motivating	10	5-10	-	5-10	-	8-10
...that I have the skills necessary for employment in the pork industry	8	5-10	-	5-8	-	8-10
...what motivates me to learn new things	8	5-10	-	5-9	-	8-10
...what kind of activities I find motivating	10	5-10	-	5-10	-	8-10
...what kind of jobs I want to do	9	5-10	9	5-9	-	8-10
...what I might need help with in the workplace	10	5-10	-	5-10	10	10-10
...my ability to listen and respond to others	8	5-10	-	5-8	-	8-10
...my ability to accept direction, guidance and support from other staff	8 ^a	5-10	-	5-10	-	8-10
...my ability to listen and respond to staff	10	5-10	-	5-10	-	8-10
...my capacity to live in close proximity to the farm	9	5-10	9	5-9	-	8-10
...my ability to change my behaviour to fit into a workplace	10	5-10	-	5-10	-	8-10
<i>The training and assessment program...</i>						
...correctly identified the suitable working hours for me	10	5-10	5	5-8	10	10-10
...correctly identified my sensory sensitivities and other needs	-	5-10	-	5-9	-	8-10

	Both Sites n=5		Qld n=3		SA n=2	
...correctly identified my communication style	-	5-10	-	5-9	-	8-10
...correctly identified my social preferences in the workplace	8	4-9	-	5-8	-	8-9
...prepared me so that I now feel confident handling pigs	10	5-10	-	5-9	10	10-10
...prepared me so that I now feel comfortable being in a farm environment	10	5-10	10	5-10	-	9-10
...provided me with strategies to handle any sensory sensitivity issues at the farm	-	5-10	-	5-9	-	7-10
...prepared me so that I knew what would be expected from me when I started work	10	5-10	-	5-10	10	10-10
...taught how to get help if I need it	10	5-10	10	5-10	10	10-10
I have got a job that matches my skills	10	5-10	-	5-10	10	10-10
I have got a job that matches my interests	10	5-10	-	5-8	10	10-10
I enjoy my job	10	5-10	5	5-10	10	10-10
I think I will be working in the pig industry 3 years from now	5	2-10	-	2-7	-	5-10

Scale: 1 (do not agree at all), 2, 3, 4, 5, 6, 7, 8, 9, 10 (completely agree)

^a denotes that multiple modes exist. The smallest value is shown.

- denotes no mode exists.

Satisfaction with Work (n=5)

Results aggregated across site showed most participants (n=5) were in agreement with 10 of the 18 statements related to satisfaction with work (Mode ≤ 2 , or ≥ 4 for negative statements). As shown in table 12, most participants were 'undecided' (Mode = 3) for the remaining eight statements. No statements had scoring indicating dissatisfaction with work.

Table 12: Autistic Employee Satisfaction with Work

	Both Sites n=5		Qld n=3		SA n=2	
	mode	min & max	mode	min & max	mode	min & max
There are some things about my job that could be improved	3	2-3	3	2-3	-	2-3
My job is like a hobby to me (a hobby is something you do regularly in your spare time for pleasure)	2	1-3	2	2-3	-	1-2
My job is usually interesting enough to keep me from getting bored	1	1-3	-	1-3	1	1-1
It seems that other people are more interested in their jobs	3	3-3	3	3-3	3	3-3
I consider my job rather unpleasant	4	2-5	-	2-4	-	4-5
I enjoy my work more than my leisure time	3	3-4	3	3	4	4-4
I feel fairly well satisfied with my present job	1 ^a	1-3	2	2-3	1	1-1
Most of the time I have to force myself to go to work	3	2-5	3	3-4	-	2-5

	Both Sites n=5		Qld n=3	SA n=2		
I am satisfied with my job for the time being	2	1-3	2	2-3	-	1-2
I feel that my job is no more interesting than others I could get	3	3-5	3	2-3	-	3-5
I definitely dislike my work	3 ^a	3-5	3	3-5	-	4-5
I feel that I am happier in my work than most other people	3	3-5	3	2-3	3	3-3
Most days I am enthusiastic about my work	1 ^a	2-3	3	2-3	1	1-1
Each day of work seems like it will never end	4	1-5	4	3-4	-	1-5
I like my job better than other people I work with	3	1-5	3	3-4	-	3-5
My job is pretty uninteresting	5	3-5	-	3-5	5	5-5
I find real enjoyment in my work	1 ^a	1-3	2	2-3	1	1-1
I am disappointed that I ever took this job	5	3-5	3	3-5	5	5-5

Scale: 1= strongly agree, 2= agree, 3=undecided, 4=disagree, 5=strongly disagree

^a denotes that multiple modes exist. The smallest value is shown.

- denotes no mode exists.

12. Appendix B

Co-workers', Mentors' and Supervisors'/Managers' Attitudes Towards Autism and Self-Efficacy

Data from the Societal Attitudes Towards Autism (SATA) scale, which measures attitudes towards autism, indicated no change in attitude. Specifically, no items nor total score showed a statistically significant difference in mean scores between pre- and post-employment, as shown in Table 13.

Table 13: Co-workers, Mentors and Supervisors/Managers – Attitudes Towards Autism

	Co-workers (n=33)		Mentors and Supervisors (n=13)	
	Difference of \bar{x} (sd)	p-value	Difference of \bar{x} (sd)	p-value
<i>Total score</i>	0.32 (5.02)	0.50	1.84 (4.43)	0.26
Items				
People with autism should not engage in romantic relationships.	-0.06 (0.56)	0.76	0.08 (0.64)	1.00
People with autism should have the opportunity to go to college.	0.00 (0.84)	1.00	0.31 (0.63)	0.25
People with autism should not have children.	-0.03 (0.78)	1.00	0.23 (0.83)	0.51
People with autism should be institutionalized for their safety and others.	-0.10 (0.76)	0.79	0.00 (0.58)	1.00
If a facility to treat people with autism opened in my community, I would consider moving out.	0.06 (0.76)	0.59	0.08 (0.49)	1.00
Individuals with autism are incapable of living on their own.	0.13 (0.75)	0.49	0.23 (0.60)	0.38
I would be afraid to be around a person with autism.	0.18 (0.64)	0.18	0.08 (0.49)	1.00
A person with autism is an emotional burden to his/her family.	-0.09 (0.95)	0.70	0.08 (0.79)	1.00
I would be comfortable working alongside a person with autism.	0.21 (0.55)	0.07	0.08 (0.64)	1.00
A person with autism is a financial burden to his/her family.	0.18 (0.67)	0.27	-0.08 (0.28)	1.00
People with autism should be encouraged to marry someone with autism.	0.00 (0.92)	0.99	0.00 (0.58)	1.00
People with autism are incapable of forming relationships and expressing affection.	-0.03 (0.82)	1.00	0.08 (0.76)	1.00
Children with autism should be fully integrated into mainstream classes.	-0.06 (0.76)	0.80	0.08 (0.28)	1.00
I would be uncomfortable hugging a person with autism.	0.03 (0.81)	1.00	0.46 (1.20)	0.28
People with autism cannot understand other people's feelings.	0.03 (0.59)	1.00	0.38 (0.51)	0.06
Students with autism who are mainstreamed into regular classrooms are a distraction to students without autism.	-0.26 (1.00)	0.12	-0.23 (0.44)	0.25

Similarly, analysis of self-efficacy survey data from mentors and supervisors, as seen in Table 14, showed no statistical significant enhancement of self-efficacy elements between pre- and post-employment

Table 14: Mentors' and Supervisors'/Managers' Self-Efficacy

	Difference of \bar{x} (sd) n=14	p-value
<i>Total score</i>	0.21 (1.42)	0.90
Items		0.95
<i>How confident do you feel that you can support an adult with autism...</i>		0.91
...in developing a targeted job description?	-0.79 (1.85)	0.89
...during a job trial?	-1.00 (1.84)	0.90
...based on your current knowledge in autism?	-0.57 (1.16)	0.91
...by identifying their workplace challenges?	-0.79 (1.37)	0.95
...in developing a Support Plan (a flexible plan for workplace support)?	-1.00 (1.78)	0.95
...when deciding on workplace modifications?	-0.71 (2.30)	0.91
...by implementing workplace modifications?	-0.62 (2.14)	0.90
...during social situations in the workplace (social greetings, conversational topics, networking and/or events)?	-0.23 (1.83)	0.89
...in communicating according to their needs?	-0.14 (1.10)	0.91
...in managing stressful and anxiety provoking situations?	-0.23 (1.36)	0.91
...in resolving conflict that may occur between them and their co-workers?	-0.07 (2.14)	0.88
...in managing conflict between yourself and the employee with autism?	-0.29 (1.49)	0.94
...by identifying their workplace strengths?	-0.50 (1.70)	0.95
...in educating their co-workers about autism?	-0.86 (1.17)	0.90
...within current company resources?	-0.79 (1.53)	0.95

13. Appendix C

Unsuccessful Candidates' Employment Process and Self-Efficacy

Data from the Employment Process survey is shown in Table 15. With regard to the employment process itself, most participants completely agreed (Mode=10) that it correctly identified their ability to: listen and respond to staff; and, accept direction, guidance and support from other staff.

Further: that it was worthwhile; that they were treated with respect; and, believed the decision not to hire them was fair. The item with the largest range score, indicating greatest diversity in opinion, was that candidates know more about themselves than prior to the process (range=9).

Table 15: Unsuccessful Candidates- Adapted Employment Process Survey

	mode	min & max
		n=4
<i>The employment process correctly identified....</i>		
... my skills.	-	3-10
... that I do not have the skills necessary for employment in the pork industry.	5	1-5
... what motivates me to learn new things.	-	3-10
...what kind of activities I find motivating.	5	3-10
...what kind of jobs I want to do.	5	5-10
...what I might need help with in the workplace.	5	5-10
...my ability to listen and respond to others.	-	4-10
...my ability to accept direction, guidance and support from other staff.	10	5-10
...my ability to listen and respond to staff.	10	5-10
...my capacity to live independently.	5	5-10
The employment process helped me understand what kind of activities I find motivating.	-	3-10
The employment process helped me to identify new goals that I want to achieve in order to get a job.	-	6-10
The employment process have been worthwhile.	10	5-10
I know more about myself now than before I started the employment process.	-	1-10
The decision not to offer me a job in the piggery industry is fair.	10	5-10
I have been treated with respect during the employment process.	10	9-10
The decision not to offer me employment in the piggery industry was given to me in a respectful way.	10	10-10
I can see more options for my future now that I participated in the process.	-	5-10

Scale: 1 (do not agree at all), 2, 3, 4, 5, 6, 7, 8, 9, 10 (completely agree)

'-' denotes no mode exists.

With regard to self-efficacy, most participants indicated complete confidence (Mode=10) that they could identify things that could be a challenge for them in the workplace, and changes within their job that could 'help them do better'. The greatest diversity in opinion, with a range score of nine, was that they could perform well in an interview process. This is shown in Table 16.

Table 16: Unsuccessful Candidates- Self Efficacy

	mode	min & max
		n=4
<i>How confident do you feel...</i>		
...applying for a job?	5	3-7
...that you can do well during a job trial?	-	2-7
...that you can perform well during the interview process without any help or support?	-	1-10
...that you can find employment without any help or support?	-	1-5
...that you can identify things that may be a challenge for you in the workplace?	10	5-10
...that you can tell people what you need to help you work better?	-	6-10
...that you can identify changes within your job that would help you do better?	10	7-10
...during social situations at work (such as casual chats)?	5	4-8
...that you can communicate with people you work with?	-	4-9
...that you can communicate with managers?	-	4-9
...that you can manage stressful and anxiety provoking situations in the workplace?	5	5-8
...that you can resolve conflict between you and your co-workers?	-	3-9
...that you can manage a conflict between you and your manager?	-	3-9
...that you can identify your strengths for a specific job or workplace?	-	5-10
...that you can tell people you work with about autism?	5	2-10

Scale: 1 (not at all confident), 2, 3, 4, 5, 6, 7, 8, 9, 10 (completely confident)
 '-' denotes no mode exists.



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